

# 05. Landscape Design

The landscape design will re-establish native plant corridors and enhance public open space opportunities for the community.





Figure 72: Artist's impression- pedestrian view along Ernest Street Bridge (trees and landscape shown at 5 years maturity)

# 5.0 Landscape design

Provide new and reinstated landscapes that are appropriate to the local conditions, consistent with the existing varied character of the project, provide opportunities to increase canopy cover wherever possible and provide improved public realm amenity.

- Landscape Treatments principle, EIS Appendix V

## 5.1 Overview

The landscape design for WHT has been developed to fully integrate the works into their context and to complement the architectural and urban design of the project, with the aim of creating a pleasant experience for WHT users and the surrounding North Sydney Council area community.

The landscape design is consistent with the requirements identified in the Planning Approval and aligns with parameters established by the relevant Transport for NSW documents relating to green infrastructure, vegetation and landscaping along road corridors and the identified Landscape Character Zones (LCZ). All final landscape design has been subject to North Sydney Council guidelines and strategies to ensure that WHT seamlessly integrates with its context. This includes:

- Plant Local – a guide to native plants in North Sydney
- North Sydney Council Street Tree Strategy 2016
- North Sydney Council Urban Forest Strategy 2019

## 5.1.1 Scope

The landscape design scope encompasses:

- Ernest Street Bridge
- Corridor surface works
  - » Cammeray ventilation facilities compound
  - » Berry Street on ramp
  - » Falcon Street off ramp

The locations are dispersed along the alignment in various areas, with selection of plant types, materials and details tailored to meet specific site requirements and respond to the immediate context.

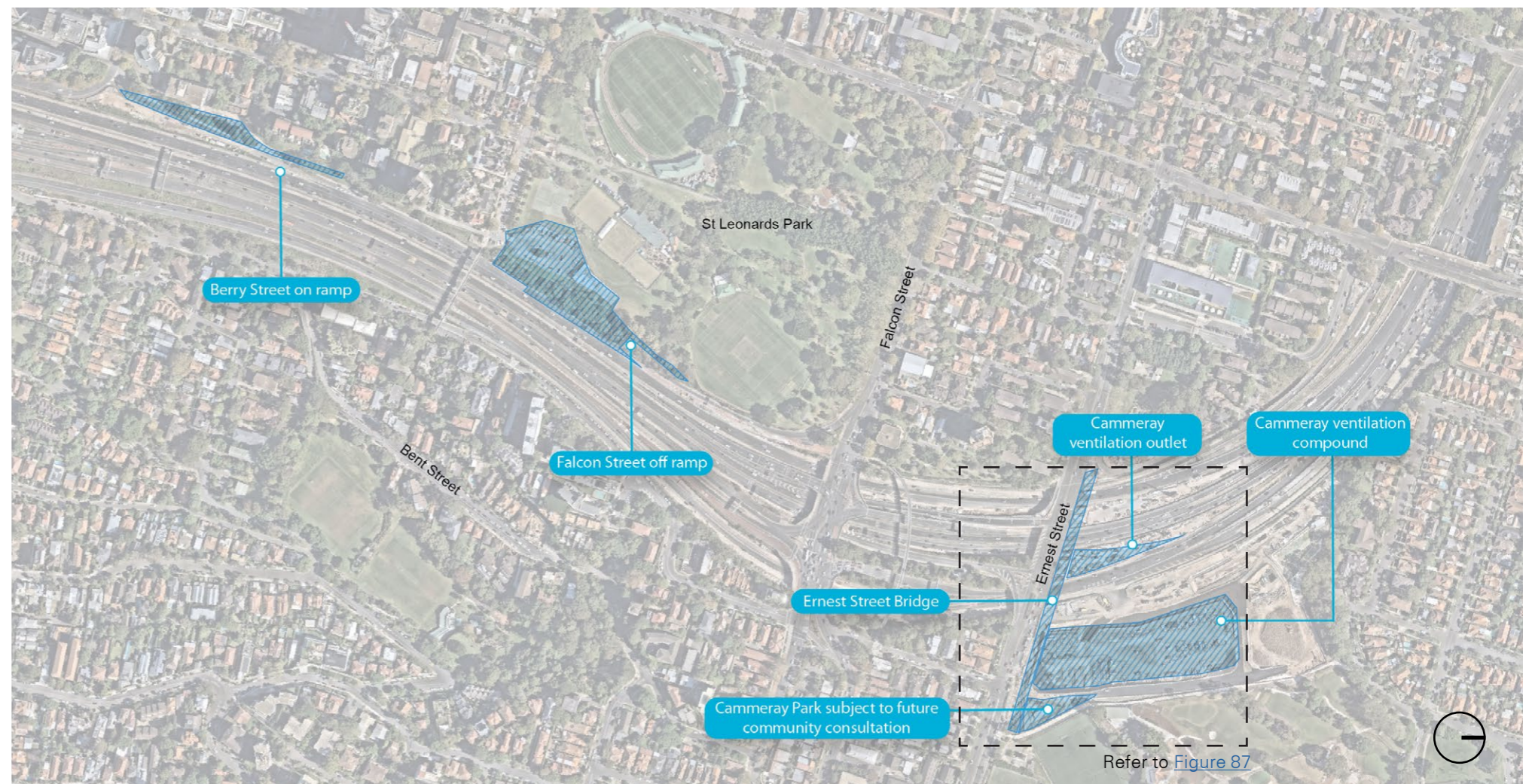


Figure 73: Landscape scope

## 5.1.2 Landscape design principles

The landscape design strategy is to provide improved amenity to the public realm whilst being sympathetic to the existing surrounding landscape. The differing landscape areas of the project require individual, site-specific resolutions that integrate seamlessly both with the proposed construction works and the existing environments.

The proposed landscape will provide additional public open space offerings, enhance tree canopy coverage where feasible, be designed from Country ensuring a connection to the land and people, be implemented in consultation with local councils and user groups, and ensure the benefits of an enhanced ecology are enjoyed by generations to come. The design will be suited to the climate and the landscape easily maintainable following completion of the works.

The landscape will be revegetated with species inspired by the once-common Sydney coastal sandstone foreshores forest plant community, together with species suitable alongside highly trafficked road corridors where maintenance access is often challenging. Planting types comprise grasses and groundcovers, small and larger shrubs, small and larger trees, chosen to be fit for purpose in their selected locations and to enhance the biodiversity of the project area.

The arrangement of plants varies to suit the site-specific conditions, from complementing existing planting patterns adjacent to the project, to planting on structures – on portals and across Ernest Street Bridge – to screening and integrating the building compounds at Cammeray. Proposed plant sizes comply with technical requirements. Tube stock is proposed for indigenous ground covers and larger stock for feature / marker planting and non-indigenous species. Street trees will be 200L and all other trees are proposed larger than 200mm.



### Ecology

- Incorporate native vegetation and re-establish historic vegetation communities wherever feasible
- Respond to biodiversity and provide new habitat for native fauna
- Protect existing trees and maximise planting opportunities wherever practicable
- Incorporate WSUD strategies including passive irrigation, using stormwater runoff to water plants.



### Community

- Create legible and comfortable active transport connections that tie into the existing network.
- Design for diverse user groups with accessible and inclusive places
- Maximise opportunities for social engagement, recreation, and public amenities
- Incorporate CPTED principles of good passive surveillance and clear sightlines to ensure safety and ease of access
- Elevate the attractiveness of spaces by incorporating artworks and implementing high-quality urban design
- Incorporate Connecting with Country principles.



### Respond to the context

- Complement the built components of the project including ventilation facilities and portals, using landscape elements strategically to screen, soften, and frame them.
- Enhance the integration of the project's constructed elements into the context.
- Respond to the material palette and elements of Cammeray facilities and WFU to ensure vision cohesion
- Extend the design seamlessly from the nearby natural environment, ensuring a harmonious and smooth transition.

## 5.2 Ernest Street active transport bridge

### 5.2.1 Overview

Ernest Street crosses the Warringah Freeway via an east-west road bridge. At the western end is ANZAC Park and at the eastern end is Cammeray Park and Golf Club. As part of the WFU works, which serve as enabling works for WHT, a 10 metre wide extension of the existing Ernest Street Bridge (ESB) will be added to the northern elevation of the existing road bridge. The Ernest Street Bridge design is largely inherited from the WFU project, with the WFU contractor delivering the bridge structure, including zones for pavements, utilities and plantings along with the northern canopy and handrail. The scope of works for WHT is to provide the surface landscape treatments to the bridge, including soft landscaping and additional balustrades.

The landscape treatment for the bridge provides:

- A green connection between Anzac Park and Cammeray Park
- A safe, comfortable and attractive space for pedestrians and cyclists to traverse, extending and enhancing the existing circulation networks, with some rest stops
- A safe space for cyclists and pedestrians to share
- Furniture and fixtures designed to meet utility spatial and maintenance requirements
- Planting suitable for growing 'on-structure' and for local environmental conditions
- 

The bridge deck landscape design has been developed from the IFC drawings produced by the WFU contractor. The design includes:

- A pedestrian zone along the northern edge of the bridge of nominally 3000mm width, including the potential for planted zones and seating at specific locations. This zone requires the ability to remove the paving to access utility zones beneath
- A planting zone in the centre of the bridge to allow for a variety of plantings, including trees. The bridge was designed with a soil vault of approximately 2500mm wide and 1000mm deep to allow for a continuous tree canopy to be provided along the length of the bridge. Street furniture, lighting and art can also be located in this zone, with the opportunity for pedestrian crossovers
- A shared path along the southern edge of the bridge of nominally 3000mm width

### 5.2.2 Design approach

Ernest Street Bridge has been designed to provide a continuous tree canopy in the public domain, linking Anzac Park with Cammeray Park via a footpath with integrated shading and seating, a shared user path, and a dedicated cycleway.

As the WFU project will be delivering the bridge structure, screens and awning, the proposed landscape and urban treatment attached to the bridge structure is heavily dictated by the provided WFU inclusions. The design of landscape elements across the bridge incorporates the finishes and structure of the WFU project to ensure consistency. In essence, the design is a fusion of WFU and WHT packages. The landscape treatments on top of the bridge structure are coordinated with project engineering disciplines.

Vegetation across the bridge is maximised with the large central planter. Plant species will be selected based upon both technical requirements and incorporating additional species from the WFU project. Drainage to planter areas will tie in with the bridge structure.

The eastern end of the bridge, which connects directly to Cammeray Park, has been designed to support the public open space connection between the bridge and park. The path treatment provides raised paved crossing to ensure pedestrian priority. Safety elements of bollards, line markings and tactiles are incorporated along with kerb ramps, kerbs, gutters and traffic signage, to ensure a visually seamless pedestrian link.





The Ernest Street Bridge will serve as a fresh green connection, seamlessly extending the landscapes on either side.

Figure 74: Artist's impression of Ernest Street Bridge, view from eastern end (existing context shown indicatively, trees and landscape shown at 5 years maturity)

### 5.2.3 Landscaping

Landscape elements have been selected that are suitable for planting on structures. A mix of low ground covers, shrubs and trees will provide for a variety of scale and colour. Plants are low maintenance and their growing conditions include:

- Trees planted in central planting areas of minimum 1m soil depth, and anchored to stabilise them against wind
- Passive irrigation in the central planting to run off from adjacent paved areas
- Soil and mulch (wood chip) shaped to help slow the surface water flow
- Mass planting of grasses and shrubs, with taller and feature species at the centre and lower species at the front.

### 5.2.4 Central planting bed

The primary landscaping zone on the bridge is deep enough for tree planting (as provided by the WFU contractor within the superstructure). The trees will shade the path and create a comfortable environment to walk, or stop and rest. In addition, understorey plantings of ground covers, grasses and low shrubs are proposed to increase biodiversity and create a green connection to the park. Plant species proposed are shown in the plant schedule (Table 3).

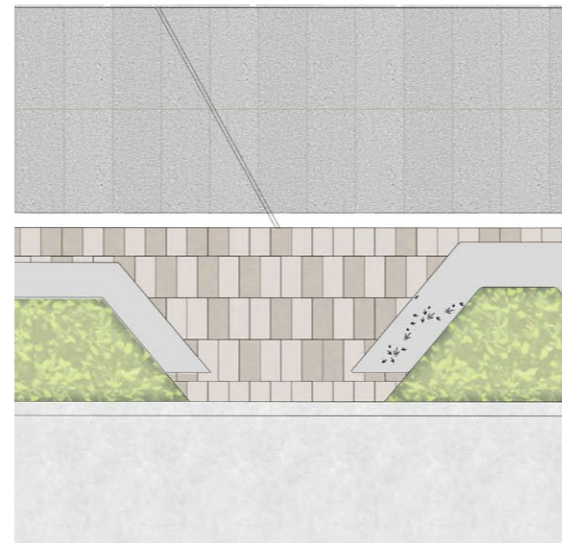
### 5.2.5 Rest area

On the eastern half of the bridge, breaks in the central planting bed connect the pedestrian path to the shared path. These breaks will double as rest areas, including include bench seating, vegetation, and potentially public art. Decorative pavement will help delineate the different movement zones. The rest areas are designed for moments of quiet between the travel routes of walkers and cyclists on the bridge.

### 5.2.6 Pathways

The pedestrian path zone along the northern edge of the bridge will be paved with removable precast concrete panels which sit above the Sydney Water mains pipes, as per the WFU documentation. Pathways across the bridge will be flanked where required by handrails and balustrades, also designed to be part of the WFU suite of elements for visual consistency.

Shade is provided by way of trees in the central planting bed and a 3m wide overhead shade screen installed by the WFU project on the northern side. The shade screen will also provide a canvas for indigenous artwork and storytelling to be incorporated as part of the WFU project.



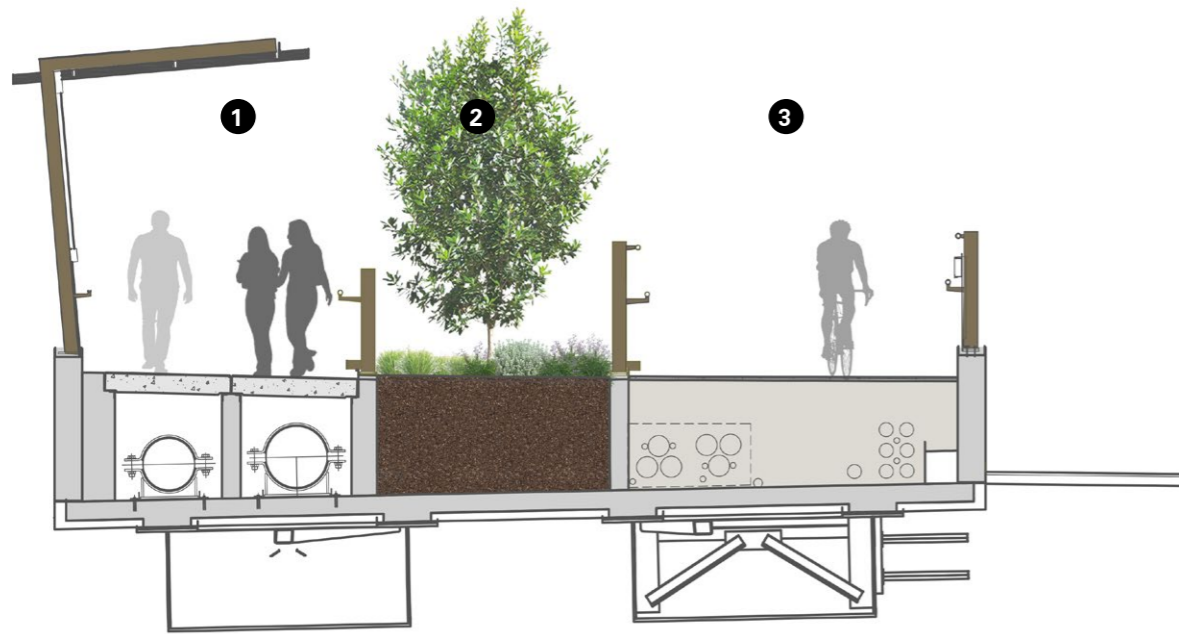


Figure 75: Ernest Street Bridge: Section 1

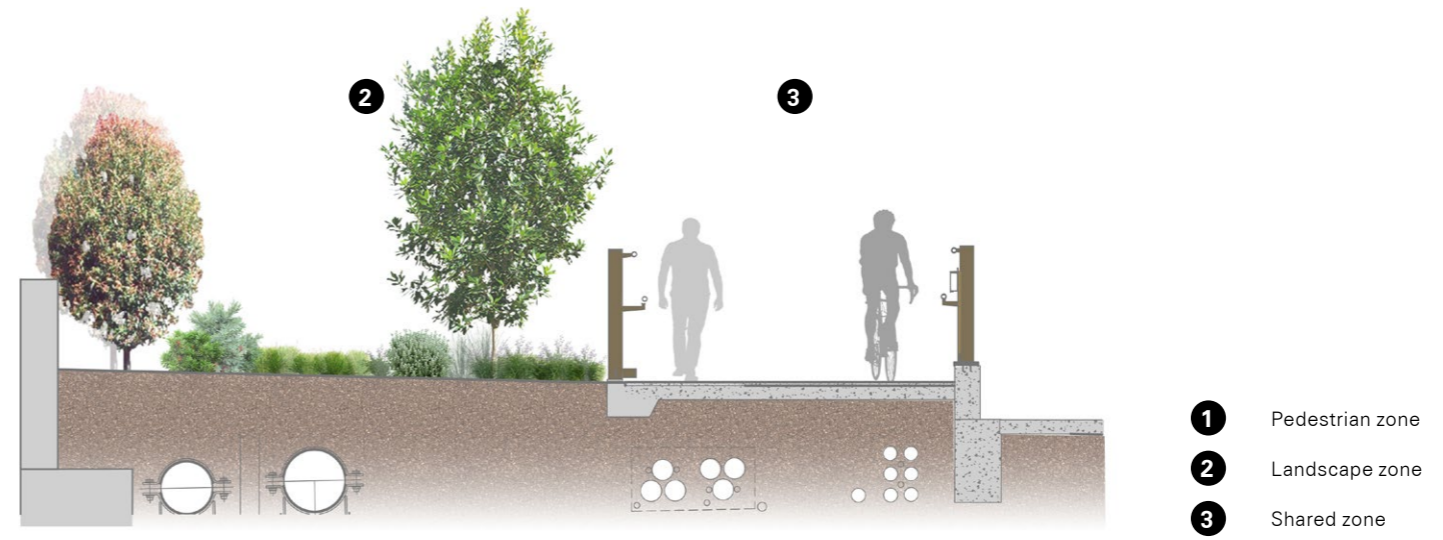


Figure 76: Ernest Street Bridge: Section 2



Figure 77: Ernest Street Bridge- Plan



Cammeray ventilation building

Cammeray ventilation outlet

Anzac park

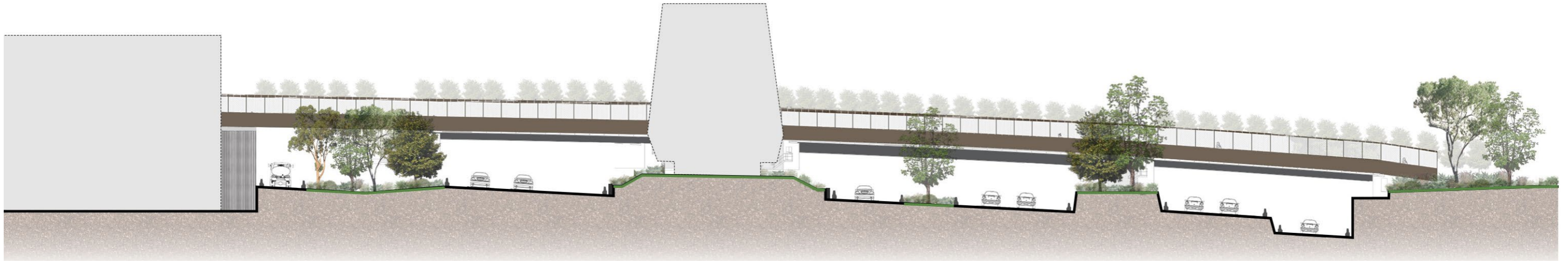


Figure 78: Ernest Street Bridge- north elevation



Figure 79: Artist's impression of Ernest Street Bridge seen from Warringah Freeway southbound (trees and landscape shown at 5 years maturity)



Figure 80: Artist's impression of pedestrian view along Ernest Street Bridge, western end (trees and landscape shown at 5 years maturity)

### 5.2.7 Plant schedule

Botanical Name	Common Name
<b>TREE/FEATURE PLANTING</b>	
<i>Angophora costata</i>	Sydney Red Gum
<i>Acmena smithii</i>	Lilly Pilly
<i>Backhousia citriodora</i>	Lemon Myrtle
<i>Banksia integrifolia</i>	Coastal Banksia
<i>Corymbia gummifera</i>	Red Bloodwood
<i>Cupaniopsis anacardiodes</i>	Tuckeroo
<i>Elaeocarpus reticulatus</i>	Blueberry Ash
<i>Eucalyptus haemastoma</i>	Scribbly Gum
<i>Eucalyptus saligna</i>	Sydney Blue Gum
<i>Leptospermum petersonii</i>	Tea Tree
<i>Lophoestemon confertus</i>	Queensland Brushbox
<i>Melaleuca quinquenervia</i>	Broad-leaved Paperbark
<i>Tristaniopsis laurina</i> 'Luscious'	Water Gum
<b>PLANTING MIX A1: SHRUBS AND GROUNDCOVER MIX - ERNEST STREET BRIDGE</b>	
<b>Shrubs</b>	
<i>Banksia spinulosa</i> 'Birthday Candles'	Banksia
<i>Callistemon viminalis</i> 'Green John'	Weeping Bottlebrush
<b>Grasses</b>	
<i>Dianella revoluta</i>	Blueberry Lily
<i>Lomandra</i> "Lime Tuff"	Mat Rush
<b>Groundcovers</b>	
<i>Sedum kamschaticum</i>	Orange stonecrop

Botanical Name	Common Name
<b>MIX A2: SHRUBS AND GROUNDCOVER FEATURE MIX</b>	
<b>Shrubs</b>	
<i>Actinotus helianthi</i>	Flannel flower
<i>Westringia fruticosa</i>	Coastal Rosemary
<b>Grasses</b>	
<i>Dianella revoluta</i>	Blueberry Lily
<i>Lomandra</i> "Lime Tuff"	Mat Rush
<i>Ophiopogon japonicus</i>	Mondo Grass
<b>PLANTING MIX B: NATIVE BUSH MIX</b>	
<i>Callistemon viminalis</i> 'Green John'	Weeping Bottlebrush
<i>Callistemon viminalis</i>	Callistemon sp.
<i>Goodenia ovata</i>	Hop goodenia
<i>Lomandra longifolia</i>	Mat Rush
<i>Westringia fruticosa</i>	Coastal Rosemary



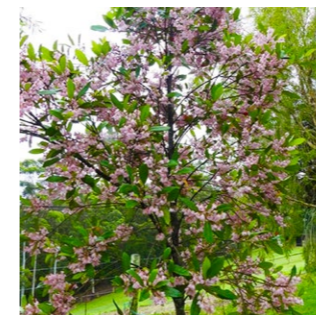
Sydney Red Gum



Tuckeroo



Lilly Pilly



Blueberry Ash



Banksia



Coastal Rosemary



Blueberry Lily



Mondo Grass



Red Bloodwood



Flannel flower



Mat Rush



Callistemon sp.

Table 3: Ernest Street Bridge plant schedule

## 5.3 Cammeray Park

Following the relocation of underground tanks in this area to the CVB site, Cammeray Park is a new opportunity to provide more beneficial public open space to the community.

Research into North Sydney Council open space strategy highlights the need for a playground space within the Cammeray Park site. The park is also situated at the junction of multiple designated cycle routes providing a perfect opportunity to highlight the space as a meeting space for cyclists and pedestrians.

### 5.3.1 Site Context

Cammeray Park is located at the eastern end of Ernest Street Bridge. The park is triangular in shape, separated from the Cammeray Ventilation Building compound by a service road and from the existing sports fields at Cammeray Park by an active transport corridor; the southern boundary of the park is Ernest Street.

The space slated to be a park has been largely cleared by the WFU contractor to use as staging area. It has been handed over to the WHT contractor for use as a construction compound before it is turned into a park. The natural topography is a gentle slope to the north and west; it is expected that this will be largely retained with isolated areas of soil levelling and vegetated batters to create usable outdoor spaces within the vegetated setting.

### 5.3.2 Design principles

- Ensure a welcoming and safe meeting space
- Maximise vegetation and re-establish locally native plants
- Provide community with usable outdoor spaces
- Incorporate WSUD initiatives.

### 5.3.3 Design approach

The park space has multiple connection points; to Ernest St, Cammeray Park soccer field and skate park and via the existing shared path running north adjacent the golf course. The proposed park design will provide access to these multiple connections and will generally follow the existing topography of the site. The natural fall of the site provides opportunity to incorporate WSUD vegetated swales adjacent the CVB access road and through the park space to capture stormwater runoff from hard stand areas.

Subtle regrading works will occur to help define the park spaces which will also add to the interest and uses of the park. Three existing trees along the Ernest St frontage will be incorporated into the design, and solutions are being designed to soften and hide the bulk of 2 existing electrical kiosks, installed as part of WFU works, located at the entry of the park space.

CPTED measures will be incorporated within the park area to ensure the space is safe and welcoming, this includes thoughtful plant design to ensure passive surveillance is provided, lighting throughout the space and any possible CCTV requirements.

The design will also include a shade canopy over the main meeting space which has the opportunity to be a feature in itself. This structure could also be designed as an art piece and be a sculptural element sitting within the proposed vegetation, with a strong connection to Country design. Design options are being considered and will need stakeholder feedback as to the desired approach.

Vegetation to the park will include native species outlined in SWTC's and also approved within North Sydney Council guidelines. Canopy trees will be proposed to provide shade, shrubs and understory plants will provide colour, interest and fauna habitat. WSUD tolerant species will assist in filtering stormwater runoff from hard stand areas.

**THIS DESIGN IS SUBJECT  
TO FUTURE COMMUNITY  
CONSULTATION**

### 5.3.4 Plant schedule

Botanical Name	Common Name
<b>TREE/FEATURE PLANTING</b>	
<i>Angophora costata</i>	Sydney Red Gum
<i>Acmena smithii</i>	Lilly Pilly
<i>Backhousia citriodora</i>	Lemon Myrtle
<i>Banksia integrifolia</i>	Coastal Banksia
<i>Corymbia gummifera</i>	Red Bloodwood
<i>Cupaniopsis anacardiodes</i>	Tuckeroo
<i>Elaeocarpus reticulatus</i>	Blueberry Ash
<i>Eucalyptus haemastoma</i>	Scribbly Gum
<i>Eucalyptus salinga</i>	Sydney Blue Gum
<i>Leptospermum petersonii</i>	Tea Tree
<i>Lophoestemon confertus</i>	Queensland Brushbox
<i>Melaleuca quinquenervia</i>	Broad-leaved Paperbark
<i>Tristaniopsis laurina</i> 'Luscious'	Water Gum
<b>MIX C: NATIVE SHRUB AND GROUNDCOVER MIX - CAMMERAY PARK</b>	
<b>Shrubs</b>	
<i>Banksia ericifolia</i>	Heath Banksia
<i>Callistemon lineraris</i>	Narrow-leaved Bottlebrush
<i>Callistemon viminalis</i>	Weeping Bottlebrush
<i>Dianella caerulea</i>	Blue Flax Lilly
<i>Doodia aspera</i>	prickly rasp fern
<i>Grevillia lineriaefolia</i>	White Spider Flower
<i>Goodenia ovata</i>	Hop goodenia
<i>Doryanthes excelsa</i>	Gymea Lily
<i>Hakea dactyloides</i>	Broad-leaved hakea
<i>Leucopogon ericoides</i>	Pink Beard-Heath

Botanical Name	Common Name
<i>Lomandra longifolia</i>	Mat Rush
<i>Syzygium australe</i>	Brush cherry
<i>Themeda australis</i>	Kangaroo Grass
<i>Westringia fruticosa</i>	Coastal Rosemary
<i>Westringia fruticosa</i> 'Mundi'	Coastal Rosemary
<b>Grasses</b>	
<i>Dianella caerulea</i>	Blue Flax Lilly
<i>Ficinia nodosa</i>	Knobby Club Rush
<i>Lomandra hystrix</i>	Creek Mat Rush
<i>Poa affinis</i>	Tussock Grass
<i>Themeda australis</i>	Kangaroos Grass
<b>MIX D: NATIVE GROUNDCOVER MIX - CAMMERAY PARK</b>	
<i>Doodia aspera</i>	Prickly rasp fern
<i>Dichondra repens</i>	Kidney Weed
<i>Juncus usitatus</i>	Common rush
<i>Lomandra longifolia</i>	Mat Rush
<i>Poa labillardierei</i>	Tussock Grass
<i>Poa sieberiana</i>	Grey tussock-grass
<i>Banksia spinulosa</i> 'Birthday Candles'	Banksia
<i>Carpobrotus glaucescens</i>	Pigface
<i>Callistemon viminalis</i> 'Green John'	Weeping Bottlebrush
<i>Dianella caerulea</i>	Blue Flax Lilly
<i>Doryanthes excelsa</i>	Gymea Lily
<i>Dianella revoluta</i>	Blueberry Lily
<i>Dichondra repens</i>	Kidney Weed
<i>Lomandra hystix</i>	Creek-mat rush

Botanical Name	Common Name
<i>Lomandra "Lime Tuff"</i>	Mat Rush
<i>Ozothamnus diosmifolius</i>	Rice Flower
<i>Westringia fruticosa</i>	Coastal Rosemary
<b>MIX F: ROADSIDE MIX - CAMMERAY PARK</b>	
<i>Dianella caerulea</i>	Blue Flax Lilly
<i>Lomandra longifolia</i>	Mat Rush

**THIS DESIGN IS SUBJECT TO FUTURE COMMUNITY CONSULTATION**

Table 4: Cammeray Park plant schedule



Sydney Red Gum



Tuckeroo



Lilly Pilly



Blueberry Ash



Banksia



Coastal Rosemary



Blueberry Lily



Mondo Grass



Red Bloodwood



Rice Flower



Mat Rush



Broad-leaved hakea

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## 5.4 Corridor landscape

### 5.4.1 Falcon Street off-ramp

The Falcon Street off ramp sits between St Leonards Park and the Warringah Freeway. The southernmost portion of the cutting will be covered with a concrete structure and replanted to extend the parklands over the construction scope, with a retaining wall along the western edge.

The landscape treatment adjacent the Falcon Street off ramp will make good the areas disturbed by construction and tie in with existing lawn and garden areas within St Leonards Park. This results in more usable public areas. Towards the east, the planted embankments slope downward and merge with the proposed road level adjacent to the Warringah Freeway. Vegetation, including trees, proposed for replacement will be of similar native species, arranged informally to replicate the adjacent landscape.

Refer to [Section 8.4.1](#) for detailed design description and drawings.

### 5.4.2 Berry Street on ramp

The Berry Street on ramp is in a cutting running northward from Berry Street along the edge of the Warringah Freeway. Landscape adjacent the Berry Street on ramp will be minimal, aimed at restoring areas disturbed by construction. The proposed planting serves to visually screen the freeway from nearby residents.

Refer to [Section 8.4.4](#) detailed design description and drawings.



Figure 81: Artist's impression of Falcon Street off ramp from Warringah Freeway (trees and landscape shown at 5 years maturity)



Figure 82: Artist's impression of Berry Street on ramp (existing context shown indicatively)

### 5.4.3 Cammeray ventilation facilities

The Cammeray ventilation buildings sit within a compound along the eastern edge of the Warringah Freeway, adjacent to the reconfigured Cammeray Golf Club. The landscape strategy has been developed to ensure the buildings within the compound are not only integrated into their surroundings through screening, but complement the architectural form of the buildings as described in [Section 6.0](#).

Landscaping will be suited to the functional nature of the ventilation compound, with paved areas for truck movements and vehicular parking. Trees with native understorey planting will be limited to the periphery of the site, with exotic turf proposed in the middle. The screening provided at the southern end of the site, adjacent to the ESB, will be continuous with the screening delivered by the WFU contractor as part of their bridge works for visual continuity between the projects.

Planting around the ventilation outlet in the median of Warringah Freeway will be installed in the initial phase of construction and will consist of hardy and low maintenance native trees with an understorey of low shrubs and native grasses, consistent with the planting types across the Warringah Freeway site. Towards the northern and southern ends of the site, the landscape will tie into the existing WFU levels.

Refer to [Section 6.4.1](#) and [Section 6.5.1](#) for further details and planting schedule.



Figure 83: Artist's impression of Cammeray ventilation outlet and landscape around it (trees and landscape shown at 5 years maturity)



## 5.5 Landscape design response to project principles

PROJECT PRINCIPLE	KEY DESIGN MOVE
<b>Objective 1 - Designing with Country</b>	
Design built elements to acknowledge and celebrate the deep history and unique culture of the place, and the enduring connection of Aboriginal people to the land.	<ul style="list-style-type: none"> <li>– Planting and materials selected to reflect the area and tie in with landscape character and geology</li> <li>– Within the landscape design, opportunities for First Nations public art and education including potential meeting place within Cammeray Park</li> </ul>
Communicate to motorway users that they are entering and travelling through the land of the Cammeraygal and Wangal people.	<ul style="list-style-type: none"> <li>– Most of the project is in tunnel. Above ground we are north of Sydney Harbour on the land of the Cammeraygal people. The planting design uses native species once local to the area, in acknowledgement of this being Cammeraygal land</li> </ul>
Care for Country through reciprocal relationships between landscape, flora and fauna and people.	<ul style="list-style-type: none"> <li>– The landscape design supports caring for environment by providing habitat for native fauna</li> <li>– Places within the project boundary for people to sit, look out over the landscape and appreciate its qualities (for example locating seats with views)</li> <li>– Rehabilitating native flora</li> </ul>
<b>Objective 2 - Identity and user experience</b>	
Adopt a cohesive and simple design language for the motorway elements including tunnel panels, walls, screens, building façades and portals to create consistency and avoid visual clutter.	<ul style="list-style-type: none"> <li>– This objective specifically relates to the tunnels and portals of the project. The landscape design employs a coherent and consistent palette of both hard and soft materials, also consistent with the WFU</li> </ul>
Ensure awareness of the geographic location while travelling by referencing the specific natural and cultural characteristics of the places the corridor is passing through.	<ul style="list-style-type: none"> <li>– Planting and materials selection 'of the place' and can be appreciated by people in the public domain</li> </ul>
Story telling - develop design themes around the historic and geographic significance of the place and articulate it through integration of arts and design elements to create interest and provide a distinctive travel experience for the users.	<ul style="list-style-type: none"> <li>– Cammeray Park landscape design allows for opportunities for standalone artworks, interpretation and education</li> </ul>
Enhance the overall experience by using high-quality, durable and functional materials throughout the corridor.	<ul style="list-style-type: none"> <li>– Softscape and hardscape uses robust, low-maintenance materials</li> </ul>
Create an intuitive journey with the careful design and positioning of the urban design elements, street furniture and signage.	<ul style="list-style-type: none"> <li>– Walking, cycling and shared paths located and designed to connect destinations and link into existing local and regional active transport networks in ways that are clear, accessible and enjoyable to use</li> </ul>

PROJECT PRINCIPLE	KEY DESIGN MOVE
<b>Objective 3 - Integrated design</b>	
Ensure a smooth transition to and from the adjacent road corridors including WestConnex and Warringah Freeway, considering their general visual appearance and material palettes.	<ul style="list-style-type: none"> <li>– The planting design responds to WFU project in terms of species selection</li> </ul>
Take inspiration from and draw reference to the natural and built features of the surrounding area including the landform, geology, flora and fauna.	<ul style="list-style-type: none"> <li>– Inclusion of sandstone and local flora both in corridor and park landscape scheme</li> </ul>
Ensure the surface structures at Cammeray are sensitive to the adjacent uses and have a strong visual and spatial relationship with the existing features.	<ul style="list-style-type: none"> <li>– Planting to the surface structures reinforces the architectural design and supports 'fit' with surrounding existing features</li> </ul>
Integrate the landscape design seamlessly with the existing vegetation.	<ul style="list-style-type: none"> <li>– Responding to and where appropriate replicating the existing landscape character and vegetation patterns</li> </ul>
<b>Objective 4 - Connectivity and legibility</b>	
Enhance the legibility within the tunnel through the sequence of tunnel events that refer to the geographic locations.	<ul style="list-style-type: none"> <li>– There is no landscape within the tunnel</li> </ul>
Ensure clear wayfinding through the corridor with the clever use of design elements, viewpoints and signage.	<ul style="list-style-type: none"> <li>– Walking, cycling and shared paths located and designed to connect destinations and link into existing local and regional active transport networks in ways that are clear, accessible and enjoyable to use</li> </ul>
Provide active transport facilities where feasible and tie them in with existing and future networks and improve links from Cammeray Park.	
Ensure visual consistency with the cohesive design language and material palette along the corridor.	<ul style="list-style-type: none"> <li>– Coherent planting palette consistent with Warringah Freeway for strong linear identity through the corridor</li> </ul>

PROJECT PRINCIPLE	KEY DESIGN MOVE
<b>Objective 5 – Urban renewal and liveability</b>	
Develop open spaces as high-quality urban places accessible for the entire community.	– Project includes new open space and upgrade of Cammeray Park, plus Ernest Street Bridge treatment as public open space
Utilise public art opportunities and landscape design to enhance the appearance and experience of the place.	– Landscape design contributes positively to the appearance of the place and amenity of users, also allowing for future inclusion of standalone artworks
Ensure the surface structures, including the ventilation buildings and portals, are designed to contribute to the existing character of the surrounding environment and have high visual quality.	– Planting to the surface structures reinforces the architectural design and supports ‘fit’ with surrounding existing features
Improve street connectivity and provide safe and shaded shared paths tying in with existing routes active transport routes and the broader green network.	– Ernest Street Bridge offers a new, high amenity pedestrian and shared pathway linking across WF, with shade trees and a canopy – Tree planting design and spacing responds to and visually connects street tree planting either side of the bridge, together with Anzac Park to the west and Cammeray Park to the east
Ensure a safe environment for the community and incorporate Crime Prevention Through Environmental Design (CPTED) principles in all public areas.	– Key CPTED principles of good passive surveillance, clear and legible sightlines, lighting, and landscape screening to reduce the likelihood of graffiti, have been met in the design
<b>Objective 6 – Living Environments</b>	
Where possible, protect existing vegetation and increase tree cover.	– Where possible, existing vegetation is retained and the Project is maximising new trees where space permits
Promote opportunities for habitat creation.	– Cammeray Park and St Leonards Park have consolidated areas of new vegetation that will provide habitat
Integrate innovative and advanced Water Sensitive Urban Design (WSUD) design strategies.	– Low water use plants, and shade trees to reduce the urban heat island effect, passive irrigation through manipulation of topography are all integrated into the design
Incorporate appropriate built form and site planning to ensure minimum building footprint.	– This objective does not relate to landscape design, albeit the landscape design has been considered in site planning, for example providing sufficient space for landscape at the perimeter of the ventilation building site
Replace and restore the affected landscape.	– Replacement vegetation utilising native plants has been maximised within the site constraints

PROJECT PRINCIPLE	KEY DESIGN MOVE
<b>Objective 7 – Sustainability</b>	
Maximise planting opportunities adjacent to the corridor and within service compounds.	– Replacement vegetation utilising native plants has been maximised within the site constraints, including utilities, maintenance and access
Use robust, durable materials that contain recycled content and that are recyclable at the end of life.	– Sandstone is used, deep soil is maximised
Consider whole-of-life and circular economy in the selection of materials.	– Hardscape materials selected for robustness, while plants selected for low maintenance
Provide active transport links across the corridor.	– Ernest Street Bridge doubles as an enhanced active transport link and a new public space, for social inclusion and long-term sustainability of the place
Implement strategies and measures aimed at reducing the impact of the urban heat island effect.	– Maximising tree canopy, use of larger tree stock adjacent to hardstand areas for quicker growth and coverage