IPG BADGERYS CREEK ROAD MASTER PLAN (WSA _ MP01)

475 BADGERYS CREEK ROAD, BRADFIELD

Prepared for

INGHAM PROPERTY GROUP

9 May 2025

URBIS

Cover Image Source: SBA and Site Image

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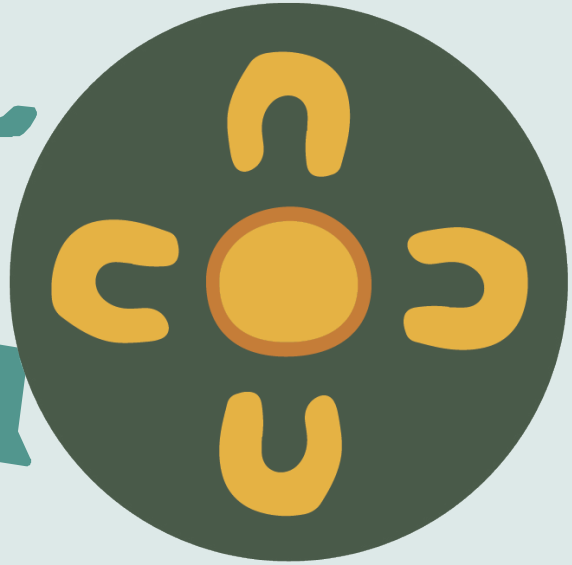
Acknowledgment of Country

We acknowledge Country and the Cultural Landscape that we are working upon. This Master Plan site is located on Dharug Country. We acknowledge the Dharug people as the Transitional Custodians of the land and pay our respects to the transitional custodianship of its people and the privilege and responsibility to Connect with Country.

We acknowledge the Dharug, Dharawal and Gandangara people and their ongoing connection to culture, lands and waters and their valuable contribution to the community. We recognise and acknowledge the surrounding clans to the North, South, East and West whilst honouring and celebrating their Elders past, present and emerging.

Connecting with Country

The Yerrabingin team has developed the key themes and considerations for the project, including 3 overarching Connecting with Country design principles that have been informed by the discussions between the Indigenous community members and the design team. The principles have been developed by incorporating all of the community's input and combining them into a set of larger principles that are more applicable to the site



THE CONVERGENCE OF 3 CLANS

This project sits in a significant spot as it is close to the convergence of 3 different clan groups. Connecting to the broader context by acknowledging and representing the 3 clan groups; Dharug, Dharawal and Gandangara. This is a unique opportunity and further consultation with these 3 community groups could lead to key narratives and stories which could be interpreted on the site.

WATER LANDSCAPE

The site is part of an incredibly unique and diverse landscape that has existed in harmony with Dharug people for generations. Helping sustain Indigenous life and culture whilst the people cared for it, creating a long lasting reciprocal relationship. This rich landscape still exists today, and should be acknowledged and celebrated.

COMMUNITY DRIVEN

Community sits at the heart of every project. This theme looks at the idea of creating a space that people feel welcome and comfortable to come to. A project that encourages people to work with the land and each other for mutual benefit. A place with a communal feel, in which people are able to come together for a connected experience of Country.

Contents

1 EXECUTIVE SUMMARY

This Master Plan (WSA_MP01) is prepared for the site located 475 Badgerys Creek Road, Bradfield (legally described as Lots 99 and 100 in DP1287207), under the ownership of Ingham Property Group (IPG) (referred to as the 'IPG site'). This Master Plan has been prepared as part of the master planning process and is to help guide future planning and development on the site. This Master Plan for the site would unlock the proposed vision for the Aerotropolis Core and underlying capacity permissible under existing planning controls. This Master Plan responds to the Master Plan Requirements and has been designed in collaboration with the Technical Assurance Panel (TAP) as part of the Master Plan Co-Design Process.

The IPG site has been identified for future employment since the release of the State Environmental Planning Policy (Precincts – Western Parkland City) 2021 (WPC SEPP), under which the Western Sydney Aerotropolis was rezoned (formerly known as the State Environmental Planning Policy (Western Sydney Aerotropolis) 2020 (Aerotropolis SEPP)). The rezoning confirms the WPC SEPP as the primary environmental planning instrument (EPI) governing land use and development on the site.

The Western Sydney Aerotropolis Precinct Plan (Precinct Plan) was released in March 2022 and includes the finalised Precinct Plan, following the draft Precinct Plans released in November 2020. The Precinct Plan was prepared in accordance with the provisions of the WPC SEPP, Chapter 4 Western Sydney Aerotropolis.

This Master Plan supports the development of the Western Sydney region, by providing employment opportunities and enterprise uses identified in the State Government planning policies including the Greater Sydney Region Plan, Western City District Plan, and Western Sydney Aerotropolis Plan.

This Master Plan sets out the site-specific vision and objectives consistent with the Western Sydney Aerotropolis (Aerotropolis) planning framework. The proposed design outcome is a response to the existing and future context, the strategic planning context, technical studies, and input from related stakeholders. The master plan was developed through a co-design process as part of the Aerotropolis Technical Assurance Panel.

It includes a brief description of the site, its context and key features of the proposed development. It also provides an overview of the relevant planning framework and the key environmental assessment issues that are addressed in detail during the preparation of the Master Plan.

Figure 1 IPG Structure Plan

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INTRODUCTION

2.1 Purpose of this Master Plan

The purpose of the IPG Badgerys Creek Road Master Plan (Master Plan) (WSA_MP01) is to guide development on the IPG site by:

- Identifying the vision, objectives, Master Plan diagrams, and key outcomes for the future development of the IPG site.
- Supplementing the DCP with site specific development controls.
- Amending the Precinct Plan and WPC SEPP to deliver the Master Plan and provide critical employment opportunities and services to the Aerotropolis and the broader Western Parkland City. The amendments to the Precinct Plan (refer Section 4.3) seek to deliver a superior planning and urban design response to the site through a series of refinements to the Precinct Plan.
- Communicating the planning, design and environmental objectives and controls against which the relevant consent authority will assess development applications.
- Ensuring the orderly, efficient, and environmentally sensitive development of the IPG site.
- Promoting high-quality urban design and environmental outcomes.

2.2 Land to which the Master Plan Applies

This Master Plan applies to land at 475 Badgerys Creek Road, Bradfield, referred to as the Badgerys Creek Road Master Plan. The site comprises two lots which are described as Lots 99 and 100 in DP1287207. Lot 99 is the electrical zone substation site and Lot 100 is the remainder of the site. Lot 100 is owned by Ingham Property Group and Lot 99 is owned by Epsilon Distribution Ministerial Holding Corporation (EDMHC).

2.3 Status of the Master Plan

The Master Plan has been prepared by Ingham Property Group (IPG) (the proponent) in accordance with Section 4.41 of the Western Parkland City SEPP and the Master Plan Guidelines.

The date that this Master Plan (WSA_MP01) is approved by the Minister for Planning and Public Spaces is the date that this Master Plan is published on the NSW planning portal.

Approval/publication date: July 11, 2025.

The Master Plan has effect for 40 years from commencement.

Any changes to the Master Plan are to be approved in accordance with Section 4.1 of the Western Parkland City SEPP and the Master Plan Guidelines. Section 4.42 of the Western Parkland City SEPP sets out that development consent must not be granted to development on the following land unless the consent authority has considered the Master Plan:

a. land to which a Master Plan applies or is proposed to apply,

b. land shown within the Aerotropolis that is adjacent to land to which a Master Plan applies or is proposed to apply.

2.4 Relationship to Instruments and Other Documents

2.4.1 Relationship to the Aerotropolis Precinct Plan

This Master Plan supplements the Aerotropolis Precinct Plan by providing site specific development controls for the IPG site.

2.4.2 Relationship to the Aerotropolis Development Control Plan

This Master Plan should be referred to in addition to the DCP, it provides site specific, place-based development controls to guide future development for the IPG site. This includes alternative benchmark solutions and additional controls to those in the DCP as indicated in the icons shown below.

Alternative Benchmark Solution

Items with this icon provide an alternative benchmark solution from the DCP that is more appropriate for the Master Plan. Development within the Master Plan is to demonstrate compliance with all Alternative Benchmark Solutions. Variations to Alternative Benchmark Solutions can be considered subject to design merit and a superior planning and design outcome being achieved.

Additional Control

Items with this icon provide objectives/performance outcomes not addressed in the DCP. Development within the Master Plan is to demonstrate compliance with the Additional Controls. Variations to Additional Controls can be considered subject to design merit and a superior planning and design outcome being achieved.

Principles

Items with this icon provide principles/design quality principles in addition to the DCP. Development within the Master Plan must demonstrate consideration of all Principles, where applicable and relevant to the development.

2.5 Contributions

The application of this DCP to development within the Master Plan will depend on the specific provisions and approval pathways established by this Master Plan.

In the event of any inconsistency between the Master Plan and the DCP, the Master Plan will prevail to the extent of the inconsistency.

Principles provided within this document are bespoke to the Master Plan and have been developed through the design quality and Connecting with Country consultation process. These principles represent the design considerations which follow a merit-based assessment and can be open to interpretation when assessed. Principles are on the lower end of the hierarchy of controls when compared with the 'Alternative Benchmark Solutions' or 'Additional Controls', and are not applicable to all development within the Master Plan.

Development within the IPG site will be subject to local infrastructure contributions under local contributions plans prepared by Council as well as State infrastructure contributions. State contributions will be in accordance with the Aerotropolis Special Infrastructure Contributions Area until 1 July 2026 when contributions will transition to the Housing and Productivity Contributions Scheme

Any public works outside of the State or local contribution planning framework is to be provided by the proponent or developer in agreement with the future asset owner. Any works in kind will only be credited against the relevant contributions plan or negotiated through a Voluntary Planning Agreement (VPA).

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STRATEGIC CONTEXT

Figure 2 Aerotropolis Planning Framework

3.1 The Aerotropolis Planning Framework

The Government's vision for the Aerotropolis and its surrounds have been outlined within various statutory and strategic documents such as plans, policies and environmental planning instruments (EPIs).

In 2020, the Western Sydney Aerotropolis Plan (WSAP) was released, which sets the vision for the Aerotropolis and the sequenced approach to precinct planning for the early activation of the Aerotropolis. The WSAP sets out the development of a statutory planning framework that included a new SEPP and DCP. This framework sought to guide detailed precinct planning and master planning, as well as the implementation of detailed development controls that align with the vision of the Aerotropolis.

In 2022, The Aerotropolis SEPP, was consolidated into Chapter 4 'Western Sydney Aerotropolis' of the State Environmental Planning Policy (Precincts – Western Parkland City) 2021 (Western Parkland City SEPP). The SEPP outlines land-use controls for the Aerotropolis including land use zoning and aviation safety controls.

The Western Sydney Aerotropolis Precinct Plan (Precinct Plan) was also released in 2022, which provides place-based objectives and requirements for the initial precincts. It guides development within the Aerotropolis by providing detailed controls and provisions outlined in the SEPP.

A review of strategic planning requirements for the site identified the following plans, strategies and requirements are relevant to the site:

- Western City District Plan
- Western Sydney Aerotropolis Plan 2020
- Western Parkland City SEPP – Chapter 4
- Western Sydney Aerotropolis Precinct Plan 2022
- Western Sydney Aerotropolis Development Control Plan 2022 – Phase 2
- Other Guidelines relevant to the site include:
  - Western Sydney Aerotropolis Master Plan Guidelines
  - Recognise Country - Guidelines for Development in the Aerotropolis 2022
  - Aviation Safeguarding Guidelines-Western Sydney Aerotropolis and Surrounding Areas

3.2 Aerotropolis Context

The site is located within the Western Sydney Aerotropolis (Aerotropolis) and is to the immediate east of the Western Sydney International Airport (WSI). The Aerotropolis is a growth area within the Western Parkland City, which will transform into a thriving hub delivering economic benefits.

The site is situated within a strategic corridor of growth areas and precincts which define the Western Parkland City, all of which are connected through a series of proposed transport corridors, such as the Outer Sydney Orbital (OSO) and Sydney Metro Western Sydney Airport (SMWSA).

The site will be well-served by three major roads within the Aerotropolis which provides good access to WSI, the Aerotropolis Core, also referred to as Bradfield City Centre, and a number of growth areas to the north and south. These roads include the Eastern Ring Road, Bradfield Metro Link Road and Fifteenth Avenue. This places the site in a strategic location to leverage off the investment dedicated towards realising the vision for the Western Parkland City's central business district. The site is also located to the east of a major infrastructure node made up of the proposed M12 Motorway, Sydney Metro Western Sydney Airport and the OSO.

The proposed Master Plan Application has been formed by the requirements of the WSAP, WPC SEPP, Final Aerotropolis Precinct Plan, and the DCP, as required by the Master Plan Guidelines.

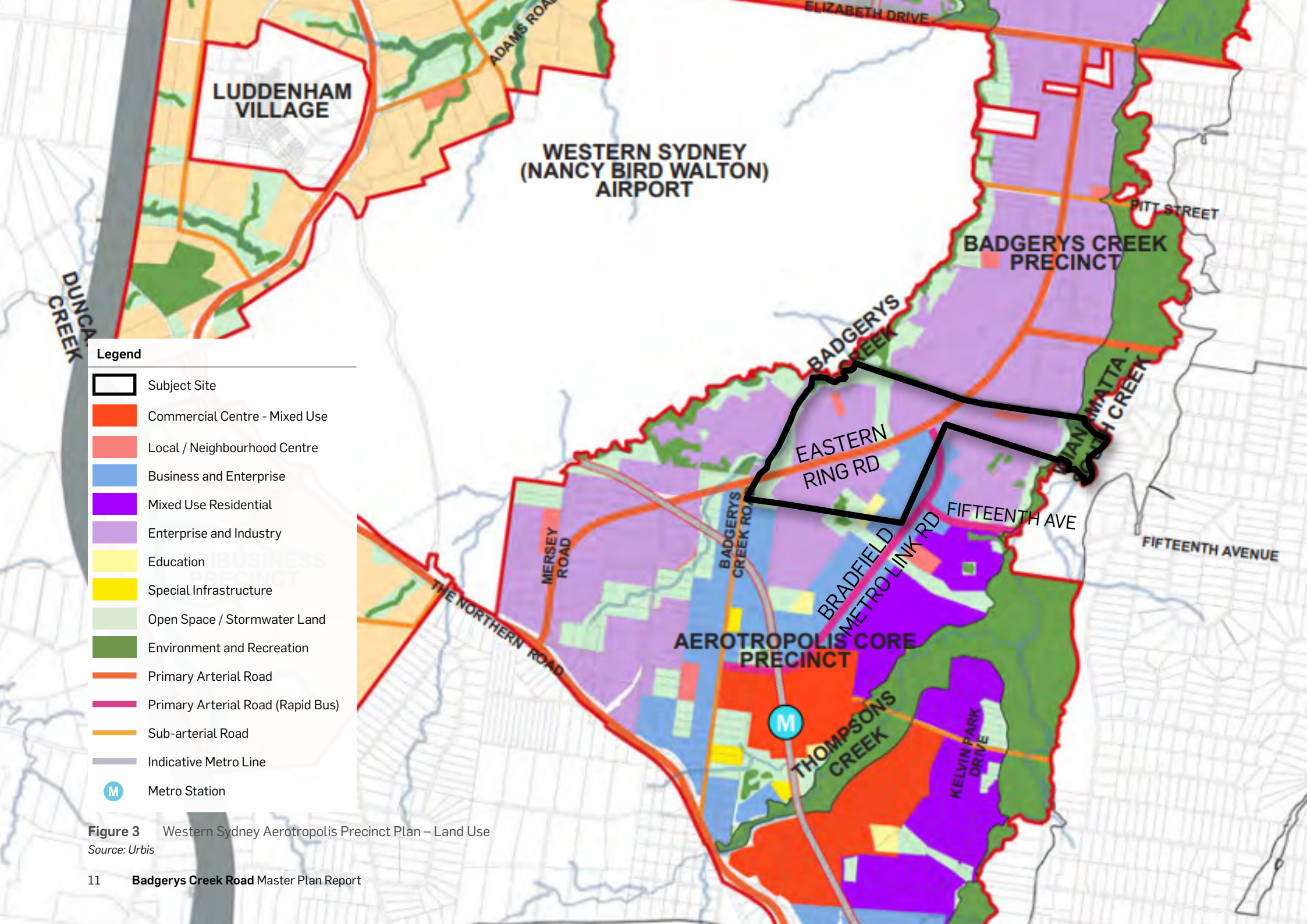

Figure 3 Western Sydney Aerotropolis Precinct Plan – Land Use
Source: Urbis

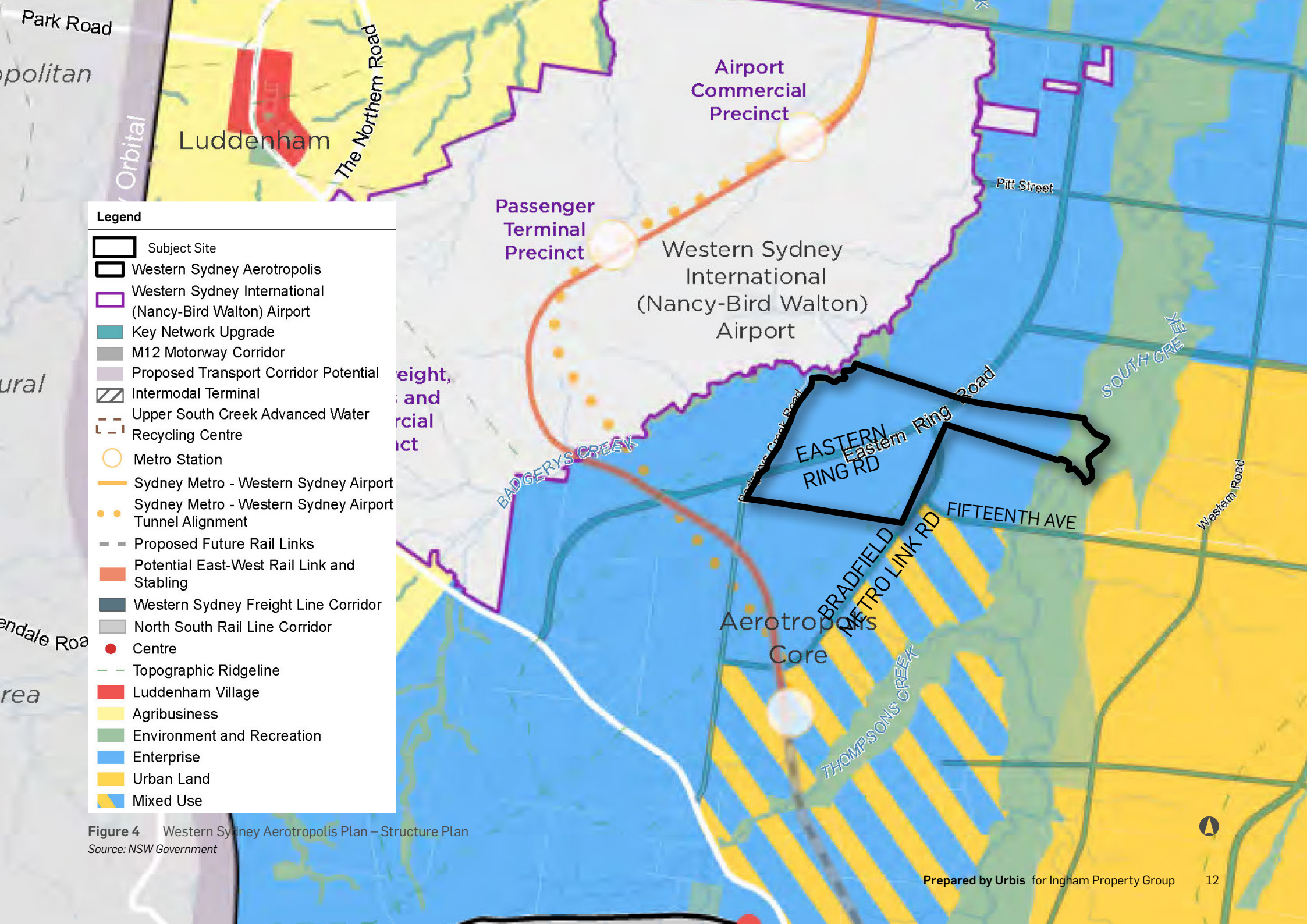

Figure 4 Western Sydney Aerotropolis Plan – Structure Plan

Source: NSW Government

3.3 Master Plan Process

The Master Plan is proposed as an alternative development approval pathway for the Ingham Property Group (IPG) site and has been prepared in accordance with Clause 4.41 of the State Environmental Planning Policy (Precincts-Western Parkland City) 2021 (Western Parkland City SEPP). In accordance with sub-clause (2), this Master Plan proposal has been prepared to be consistent with the master plan guidelines and addresses all relevant legislation to the site (including the Objects of the EP&A Act and Environmental Planning Instruments (EPIs)).

There are seven (7) stages in the master planning process:

- Stage 1—Pre-lodgement
- Stage 2—Master plan requirements
- Stage 3—Drafting of Master Plan
- Stage 4—Exhibition
- Stage 5 –Response to submissions
- Stage 6—Determination
- Stage 7—Implementation

IPG has prepared a Master Plan for the site, as part of a co-design process with the Western Sydney Aerotropolis Technical Assurance Panel (TAP), in accordance with the Western Sydney Aerotropolis Master Plan Guidelines – Guidelines to Master Planning in the Western Sydney Aerotropolis which were finalised in December 2021 (the Guidelines).

The feedback provided during the TAP co-design process to date, has been considered and implemented in this Badgerys Creek Road Master Plan, where feasible.

Source: SBA and Site Image

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MASTER PLAN VISION AND PRINCIPLES

4.1 Vision

The vision for the Master Plan is detailed below –

"We envisage the site as an integrated precinct that harmoniously responds to Country, its three creeks, riparian corridors, and unique landscape features. This design will embrace both employment uses and placemaking opportunities for visitors and the working population. The plan offers a flexible urban structure capable of evolving from industrial uses to more intensive employment uses, such as commercial and business park typologies . From the outset, the site will be recognised by its landscape-focused design, aimed at attracting leading businesses and fostering a vibrant and sustainable employment precinct in the Western Parkland City".

The site forms part of the Aerotropolis Core Precinct within the Western Sydney Aerotropolis and is predominately zoned for ENT Enterprise use under the WPC SEPP. Under the Western Sydney Aerotropolis Plan 2020, the Aerotropolis Core will become "a place of choice to do business, a new high order employment-focused metropolitan centre with a focus on advanced manufacturing, research and development, professional services, creative industries and STEM-focused educational facilities".

4.2 Key Directions

The Badgerys Creek Road Master Plan is underpinned by five key themes, which each have a series of key objectives.

CONNECTING WITH COUNTRY

- The convergence of three clans - Engage with Dharug, Dharawal and Gandangara communities to understand the stories and creating safe and welcoming places/elements that reflect local narratives and stories for the Aboriginal community.
- Water landscape - Create a site that works with the natural landscape, and spaces that allow people to be amongst and connect with nature, encouraging them to develop a better understanding of Country.
- Utilise riparian corridors/natural waterways for the purpose of flood control measures/ solutions as a natural and non-intrusive design.
- Community driven - Create community driven spaces with obvious connection to Country through story interpretation, ecotonal colour palettes, consideration of the natural environment and non human kin.
- Be inclusive of all members of the Aboriginal community who have historic connections to this place and wish to contribute their stories to the project.

CONNECTIVITY

- Deliver a well-connected and highly accessible precinct with proximity to the Airport, Aerotropolis and Liverpool CBD - playing a critical role to the broader network of logistics, industry and employment for Western Sydney and beyond.
- Create a precinct that balances the role and function of major movement corridors with local place outcomes, and roads and streets integrated into the system of public spaces and places.
- Support all modes of transport to give people choice, including safe and enjoyable active transport links feeding into broader regional networks and integrated with the frequent and reliable public transport system.
- Adopt a legible and efficient urban structure underpinned by a simple grid.

PRODUCTIVITY

- Intensify land uses to promote a stronger and more productive economy that maximises infrastructure investment.
- Provide a flexible and future proofed urban grain that allows for an evolution of uses, densities and staging over time to cater for different tenants and building needs.
- Foster a strong and collaborative relationship between landowners, investors and all levels of government to deliver the vision for IPG.
- Adopt a super lot strategy that responds to market needs and allows for future transitions in land uses and densities.

LIVEABILITY

- Deliver great places within an activated core adjoining public transport nodes to enrich local character, vibrancy and bring people together.
- Create an open space network that promotes health and wellbeing through a connection with nature and a sense of community.
- Deliver a connected network of active transport routes integrated with the natural character the site to enhance the quality of life.
- Create activated nodes to be a community-focused hub offering the convenience of public and commercial services with an energising sense of civic and public connectivity.

SUSTAINABILITY

- Deliver an appropriate tree canopy to reduce the urban heat island effect, support ecological diversity and contribute to the future character and identity of the Western Parkland City that ensure wildlife hazard restrictions and airport safeguarding measures can also be adequately addressed.
- Restore and revitalise riparian corridors through the west and centre of the site, that cool the environment, enable water detention and retention, and connect to the history of the site.
- Adopt water sensitive urban design strategies that positively contribute to the water quality, functionality and health of the Wianamatta-South Creek catchment

4.3 Master Plan

Development of the IPG site will provide critical employment opportunities and services to the Aerotropolis and the broader Western Parkland City. This Master Plan is underpinned by the following design objectives:

- **Employment growth**: A total of 625,467m² of employment floorspace is expected to be delivered to attract industries and job opportunities. The proposal will support the job targets for the precinct by generating a total of 12,429 jobs from ongoing operations across the industrial estate.
- **Urban development and activation**: Delivery of urban areas and Enterprise zones in accordance with the Precinct Plan.
- **Creek continuity**: the Master Plan layout provides better connectivity through the central riparian corridor, by altering the Precinct Plan open space network.
- **Re-alignment of the Eastern Ring Road (ERR) and Bradfield Metro Link Road (BMLR)**: the proposed realignments do not impact on the road hierarchy of both roads, or any road connecting into these roads, and they will serve the same purposes identified in the Precinct Plan. However, the Badgerys Creek Road Master Plan presents an opportunity to adjust these alignments to align with property boundaries, where feasible, for a better place and design outcome, as well as more feasible lots for development and subdivision.
- **A new local centre**: The re-alignment of the two major arterial roads creates a major focal point which is a logical location for a new local centre to complement other centres within the Aerotropolis Core Precinct. In addition to the centre, new neighbourhood nodes in various locations provide improved amenity for workers and visitors.
- **Flexible building height controls which can accommodate high-bay warehousing**: The key variation to the existing height controls proposed by IPG is to propose a maximum building height for potential high-bay warehousing of 52.5m. There are two parcels of land within the Badgerys Creek Road Master Plan identified as being suitable for high-bay warehousing, referred to as the 'western parcel' and the 'eastern parcel'.
- **Minimise topography changes to retain original land features and soil conditions and minimise terracing and retaining walls**: The development aims to tread lightly by minimising earthworks, following the natural topography and retaining noteworthy land features whilst still enabling large-format industrial and logistics facilities.

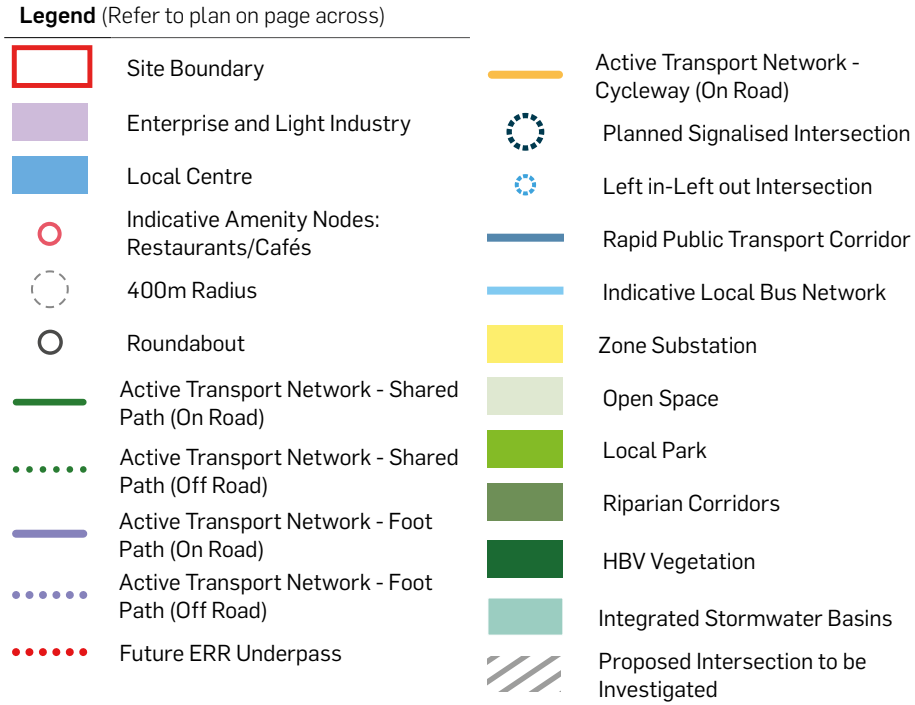


Figure 5 IPG Structure Plan

Source: Urbis

5

DESIGNING WITH COUNTRY

5.1 IPG Badgerys Creek Road Master Plan Key Themes

Development within the Badgerys Creek Road Master Plan is driven by the three overarching Connecting with Country Community Driven Themes. These themes evolved from discussions between the First Nations community members and the design team, which informed a set of larger principles more specific to the site.

Table 1 Recognise Country Strategy – Community Driven Themes

Convergence of Three Clans

This project sits in a significant spot as it is close to the convergence of 3 different clan groups. Connecting to the broader context by acknowledging and representing the 3 clan groups; Dharug, Dharawal and Gandangara. This is a unique opportunity and further consultation with these 3 community groups could lead to key narratives and stories which could be interpreted on the site.

Water Landscape

The site is part of an incredibly unique and diverse landscape that has existed in harmony with Dharug people for generations. Helping sustain Indigenous life and culture whilst the people cared for it, creating a long lasting reciprocal relationship. This rich landscape still exists today, and should be acknowledged and celebrated.

Community Driven

Community sits at the heart of every project. This theme looks at the idea of creating a space that people feel welcome and comfortable to come to. A project that encourages people to work with the land and each other for mutual benefit. A place with a communal feel, in which people are able to come together for a connected experience of Country.

5.2 Summary of Master Plan Response to Country

The Community Driven Principles have been development to allow for the local First Nations Community's input to be physically applied to the design. This allows for a design that has the principles of Designing with Country incorporated throughout design process, allowing all users of the site to physically connect to Country. The Design Application Map in Figure 6 which underpins the Designing with Country Framework for the Badgerys Creek Road Master Plan identifies key opportunities to respond to and celebrate Country through:

- Open Green Spaces
- Retention of high biodiversity areas
- Nature Inspired Play
- Screen Planting to obstruct buildings
- WSUD Elements
- Spaces amongst Nature for Workers and Community
- Riparian Activation
- Creek Restoration and Management.
- Cultural Infrastructure.

The parameters for the delivery of cultural infrastructure are further detailed in Section 10.1 of this Master Plan. Further community consultation is recommended for site specific stories for future cultural infrastructure within the Local Centre. These shared stories can be interpreted throughout the design and explored in a variety of ways. It is important to have the community's involvement from the beginning in order to implement these ideas and ensure interpretation has been achieved respectfully.

Figure 6 IPG Designing with Country – Design Application Map

Source: Yerrabingin

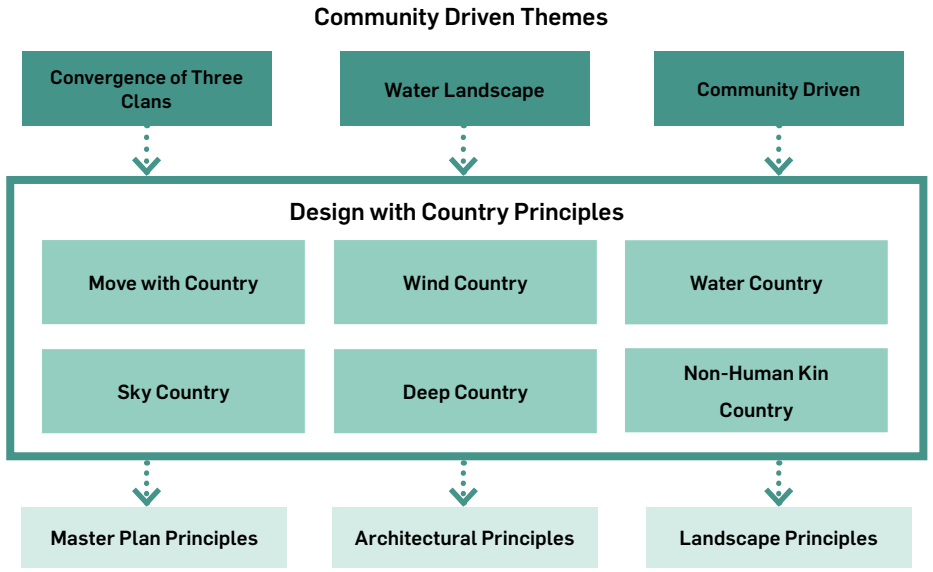
5.3 Designing with Country Framework

The Connection to Country Framework for the Master Plan has been embedded throughout the design, incorporating key themes that honour the land, its history, and the cultural significance it holds.

Design responses informed by the Designing with Country Framework have been outlined below. These Designing with Country principles have been categorised to inform the delivery of the Badgerys Creek Road Master Plan and future development on site, which include:

- Master Plan Designing with Country principles (Table 2)
- Landscape Designing with Country principles (Table 3), and
- Architectural Designing with Country principles (Table 4).

These built form design principles are to be read in conjunction with the Built Form Design Principles in Section 6.3 and the Design Quality Strategy in Section 14. All development within the Master Plan is to have consideration to these Designing with Country principles, where applicable.



5.3.1 Master Plan Design with Country Principles

Table 2 Recognise Country Strategy – Master Plan Approach

Element of Country	Design with Country Principles
Convergence of Three Clans - Principles	
Move with Country	• The Local Centre is to provide the opportunity cultural facilities, such as shops, commercial enterprises and economic and educational opportunities for the Aboriginal community
Deep Country	• The road layout within the Master Plan is to reinforce east-west sight lines and open views, where possible, towards the Blue Mountains to the west to celebrate the significant connection that First Nations people have to the mountains (Figure 8). • Open spaces and adequate separation between buildings allows for a direct visual connection to surrounding land features such as the Blue Mountains and riparian corridors (Figure 10). • Provisions and principles relating to the placement of buildings and the allocation of building heights, i.e. high bay warehousing, in relation to natural land forms, topography and views are considered within the height strategy, which have been incorporated into the updated Master Plan Report. • The layout and structure of the local centre is to respond to the existing landscape character through the preservation of the central vegetation cluster, which will form the civic space within the heart of the centre. This vegetation cluster is to be framed by commercial buildings within the centre which have been designed responds to the landscape character. • The proposed high-bay warehousing at the eastern and western parcel should respond to view lines through the site, where possible. The proposed setbacks and building separation, is to reinforce lot configuration and internal network, and respond to key east-west view lines within the site.

Figure 8 Deep Country Design Response - Creek to creek connections

Element of Country	Design with Country Principles
Water Landscape - Principles	
Water Country	• Lot configuration within the Master Plan is to enhance existing vegetation clusters and promotes the restoration of the riparian corridors. • Lot arrangement and green spaces are to provide buffers to existing riparian corridors on site (Figure 9).
Non-Human Kin Country	• Lot configuration works with existing key green spaces and waterways to allow for revitalisation of these areas. • The Master Plan supports the regeneration of regionally significant creek lines and riparian corridor opportunities and allows the opportunity for people to engage and celebrate them. • Built form hight restrictions to maintain view lines to significant surrounding landforms such as the Blue Mountains. • The regeneration of existing riparian corridors will support habitat regeneration for specific animals to align with aviation safeguarding controls.

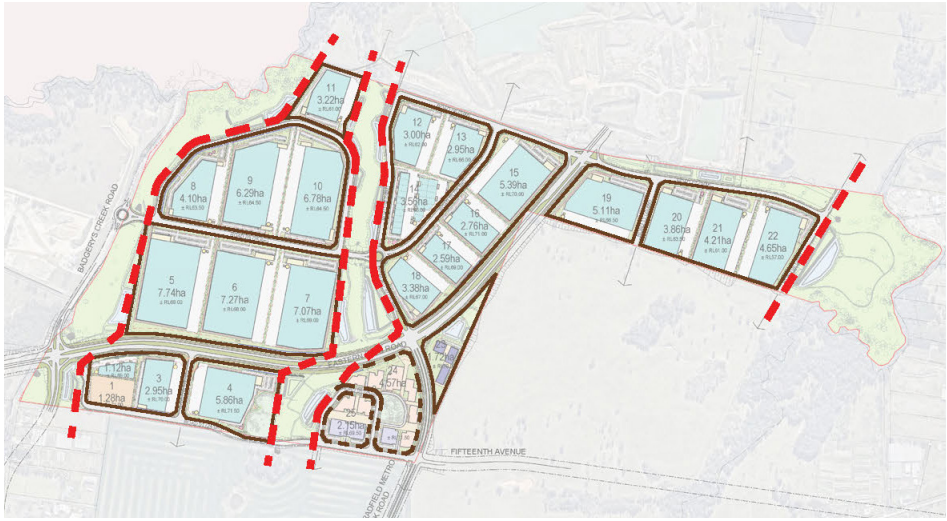


Figure 9 Water Country Design Response - Riparin corridor interface

Figure 10 Deep Country Design Response - View corridor along key open spaces

Element of Country	Design with Country Principles
Deep Country	• The Master Plan is designed to work with the organic forms of the natural landscape and to provide views to significant surrounding features. • Allotments will be formed with sloping pads and batters wherever possible to minimise cut and fill and retaining walls. • The development and associated infrastructure will be kept clear of watercourses and stands of trees and have minimised encroachment into riparian corridors to enable the retention and protection of these features. Disturbed surfaces, eroded banks and waterways will be stabilised and remediated to reduce runoff and erosion.
Wind Country	• Building separation allows for natural ventilation of public and green spaces.
Community Driven - Principles	
Move with Country	• The Local Centre will become the welcoming and focal point for people within the site, centred around a civic spine and a local park activated with local retail uses. • Naming and enterprise opportunities throughout.
Sky Country	• Building form and open green spaces provide view lines to significant landforms and sky. • Built form requirements allow for adequate solar access for public spaces.
Non-Human Kin Country	• The local park within the Local Centre to allow for ceremonies. • The Master Plan provides the opportunity to deliver on-lot vegetation that compliments the overall landscape character. • Respond to the memory of place.

Figure 11 Move with Country Design Response - Local Centre

5.3.2 Landscape Design with Country Principles

Table 3 Recognise Country Strategy – Landscape Approach

Element of Country	Design with Country Principles
Convergence of 3 Clans - Principles	
Move with Country	• Explore opportunities for embedding storytelling into the landscape design through language, signage, interpretive panels, and educational instruments. • The Local Park within the local centre is to be centred around the existing tree cluster. • Amenity areas immersed in landscape for reflection. Natural systems and features informing the physicality of the spaces. • Large open informal gathering spaces which can be utilised for community events, teaching & education. • Interpretive signage/storytelling (plaques or elements with naming, language, stories). • Minimise topographic changes where appropriate.
Water Landscape	
Wind Country	• Varied colours and textures in plant selection that interact with the wind to add to the sensory experience of the site. • Species selection with consideration for changing seasons.

Figure 12 Move with Country Design Response

Element of Country	Design with Country Principles
Water Country	• Decks integrated with WSUD basins and wetlands for people to interact with the water landscape. • Pathways connecting to the natural watercourse. • WSUD and stormwater treatment capturing polluted water and treating it before it enters the natural watercourse. • Plant appropriate vegetation close to natural waterways. • Regenerating endemic riparian ecologies to improve waterway health. • Limit earthworks near riparian corridors to reduce runoff into waterways and soil degradation. • Vegetation and green spaces as buffers to existing waterways on site. • Interpretive signage informing site users of local stories, importance of waterways, Wianamatta Mother Creek. • Natural forms and systems as an overarching design application - Can be seen in all communal areas, driving the spatial design (no geometric/European style shapes). • Reference to the creek through interactive water features in the Local Centre park and plaza - stylised creek form. • Finer grain detail through public art integration - i.e. creek motif in paving. • Waterplay in the playground. • Restore and revitalise riparian corridors through a chain of ponds to the east, west and centre of the site.
Non-Human Kin Country	• Colours of Country through natural materials - a focus on locally sourced materials where possible. • Pathways and connections through landscape to allow/encourage people to be amongst and experience nature. • Green corridor activation through sensory experiences for users. • Plant selection consists of a majority of endemic species whilst aligning with aviation safeguarding controls. • Natural materials, colours, and patterns in interpretive art and wayfinding elements. • Vegetation and green spaces provide buffers to existing riparian corridors.

Figure 13 Water Country Design Response

Figure 14 Water Country Design Response

Element of Country	Design with Country Principles
Community Driven	
Move with Country	• Integrated spaces throughout the site to facilitate community events and human interaction. • Community gardens and planting workshops with community to establish a connection with site. • The use of Dharug, Dharawal, and Gandangara language in naming and wayfinding on site.
Sky Country	• Provide a balance of large open spaces and intimate tree line places for gathering. • Where informal gathering spaces are provided, these spaces should be varying in scale which can be used for storytelling and education.
Non-Human Kin Country	• Ensure there are spaces on industrial lots that provide refuge/ amenity for human engagement. • Green spaces along riparian corridors and the park within the Local Centre to provide refuge and a balance from the developed areas of the site. • Endemic flora and fauna is to be referenced in nature play.
Deep Country	• Natural colours and materials from Country are to be used in seating and other elements in communal areas. • Natural shapes and forms referencing the surrounding landscape is to be integrated into nature play elements.

Figure 15 Non-human Kin Design Response

Figure 17 Move with Country Design Response

Figure 16 Non-human Kin Design Response

5.3.3 Architectural Design with Country Principles

Table 4 Recognise Country Strategy – Architectural Approach

Element of Country	Design with Country Principles
Convergence of Three Clans - Principles	
Move with Country	• The Local Park within the local centre is to be designed as the heart of the communal space. It is linked by the east-west bound promenade that serves as a retail strip, connecting people to the community and the natural environment. Refer Section 9.2 of this Master Plan for Local Park controls and provisions within the Local Centre. • Explore opportunities for embedding storytelling into the architectural design to create inviting spaces for the community. • Existing trees within the Local Park should be retained where possible, with built forms encircling around the park, forming a necklace like arrangement. • Landscapes should be integrated into the built forms and communal areas to create a seamless flow of spaces, blurring the boundaries between the occupants, the community, and the environment.
Wind Country	• The linear continuation of dense block structures is to be broken down with building separation, height controls and articulation along streets to avoid canyon effect that traps hot air and pollution within the Local Centre. • Ensure adequate protection for pedestrians from downdraught effects from taller buildings within the local centre through the use of awning over the streets. • Spaces of various volumes and scales are integrated into to the design to manage wind conditions appropriate for different activities and functions. • Explore 'skin' of building, i.e. shading devices as part of the interpretive art as well as microclimate design. • Courtyard spaces allow for hot air to rise and keep the communal area comfortable and inviting.

Figure 18 Move with Country Design Response

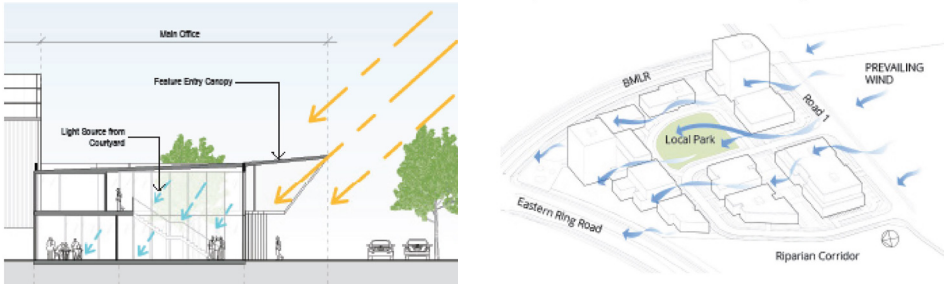


Figure 19 Wind Country Design Response Consideration of Micro-Climate

Element of Country	Design with Country Principles
Water Landscape	
Water Country	• Proposed built forms are generously setback from the Riparian Corridor. • Feature roof forms part of the integrated design to collect rainwater for irrigation purposes. • Inspired by the natural water bodies and surrounding terrain and 'naturalise' forms using feature curves to soften perceived built environment. • Rest stops are provided to encourage a journey between creeks. These structures not only provide weather protection, but also can be integrated with feature amenity, landscape, or artwork.
Non-Human Kin Country	• In high density areas, building heights are stepped down towards the riparian corridors to reduce visual impact. • Greater building setbacks are applied to the taller structures such as the high bay developments to allow more landscaping buffer adjoined to the riparian corridors. • Use of green walls to allow continuation of landscaping and soften built forms. • Incorporate ecotonal mix of colour palettes that reflect the Cumberland Plain Woodland.

Figure 20 Water Country Design Response

Figure 21 Non-Human Kin Country Design Response

Element of Country	Design with Country Principles
Community Driven	
Deep Country	• Use of green wall/green roof to reduce high temperatures within buildings by intercepting solar radiation and through evaporative cooling. • Light colour roof or paved areas to reflect sunlight, releases less heat and allows for nighttime cooling. • Communal areas with different scale, architectural screening, and landscape features help shape the built form. • Buildings are orientated towards the internal streets to reinforce the creek to creek connection, particularly roads 2 and 3. • Tower forms to explore the inclusion of roof gardens which to provide elevated views to the Blue Mountains. • Buildings adjoining the riparian corridors will have aspect and views to the corridor. • Architectural features to incorporate curvature patternation, where appropriate, to inspire by the existing terrain and the Blue Mountains.
Sky Country	• Communal spaces for the office workers are broken down into various scales, catering for different activities throughout the day. • Buildings are aligned along the promenade within the Local Centre to reinforce the view line towards the western riparian zone. • Laneways between buildings within the high density area to ensure spaces are well lit with access to natural light and protect skyline. • Building height limits, setbacks and separation are designed to ensure solar access to open spaces and public domains. • Where ancillary offices are proposed, they are to be generally located north of the warehouses to maximise solar access. Where this is avoidable, the offices are orientated to have easterly and westerly aspects. • Incorporate designs such as voids in the roof to frame the sky and opportunities to irrigate green walls.

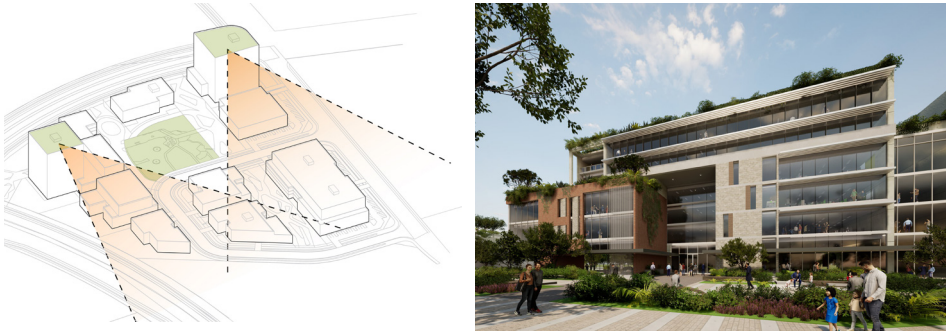


Figure 22 Deep Country Design Response

Figure 23 Sky Country Design Response

5.3.4 Aboriginal Heritage

Additional Control

1. Development within the Master Plan is to consider opportunities for Heritage Interpretation where appropriate, including the following:
   - Engaging Aboriginal artists to develop designs/artworks that depict both tangible and intangible aspects of traditional Aboriginal culture across a diverse range of traditional and modern media should be considered for the future development. Incorporation into the built forms of the future development through design features such as:
   - Paving – footpaths, communal areas and parks
   - Murals - Large industrial buildings are often large expanses of plain concrete. Murals could be commissioned to assist with connecting to country and intergenerational equity across the precinct.
   - Incorporating local Aboriginal naming conventions within the precinct design such as street names, building names, or identification naming between the different sectors of the precinct, this should be done through consultation with RAPs as part of the connecting to country.
   - Incorporating native plant species into any landscape plantings in open spaces and street plantings. These species should have been native to the study area and can assist with the aesthetics and cultural connection.
   - Providing interpretive information regarding the Aboriginal history of the site within common areas, developed in consultation with RAPs as part of connecting to country.

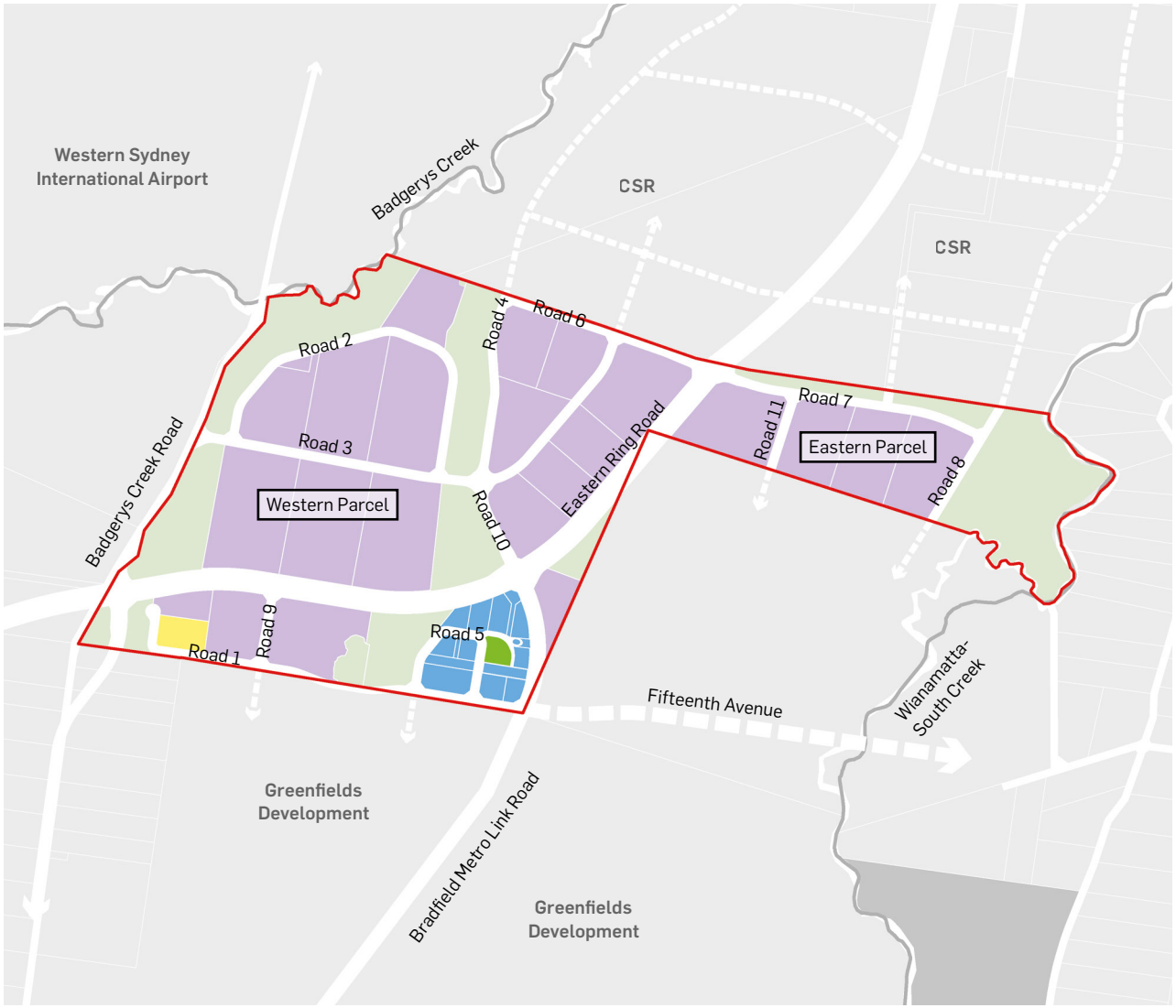
6

LAND USE AND BUILT FORM

6.1 Land Use

The Master Plan consists a series of land uses which are consistent with the land uses under the Aerotropolis Precinct Plan. These include:

- Enterprise and Industry: Predominantly accommodating warehouse and logistic uses with offices, parking and amenity.
- Local Centre: Leveraged by the public transport services, Local Centre predominantly provides low scale commercial, office with ground level retail to support the site and the surrounding context. The uses within the local centre maintains the amenity of the riparian corridor.
- Recreational Areas: Consists of open space, playing area, major riparian corridors and indicative integrated stormwater basins



Legend

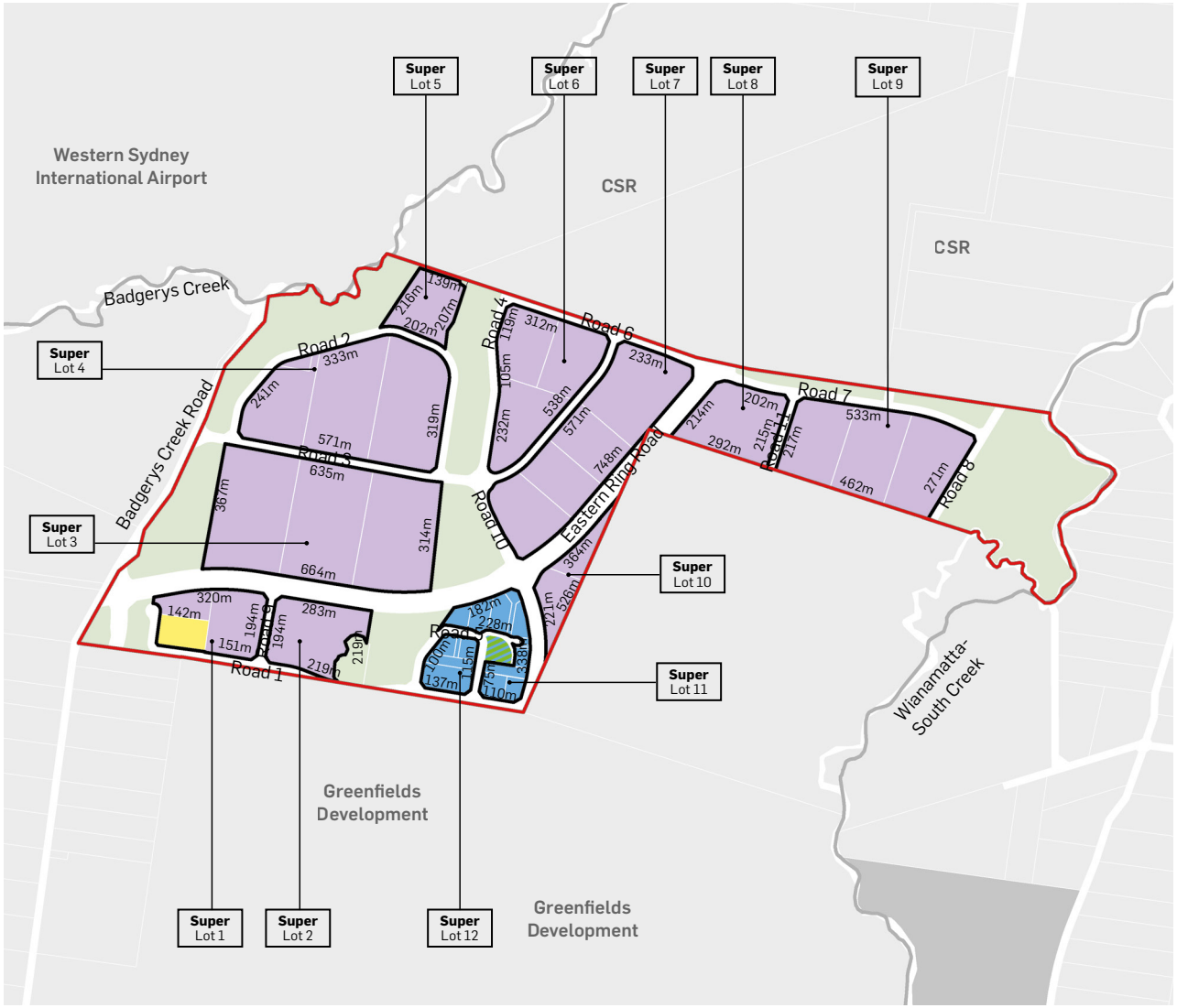
- Site Boundary
- Enterprise and Light Industry
- Local Centre
- Local Park
- Open Space / Major Riparian Corridors/ Indicative Integrated Stormwater Basins
- Zone Substation

Figure 24 IPG Land Use Plan

Source: Urbis

6.2 Subdivision Strategy

The subdivision strategy for this Master Plan comprises a series of super-lots which have the ability to be subdivided into smaller landholdings (shown in Figure 25), providing flexibility to respond to market demand and deliver a range of warehousing and enterprise typologies.



Legend

- Site Boundary
- Local Centre
- Enterprise and Industry
- Zone Substation
- Open Space / Riparian Corridor / Basins
- Local Park within Commercial Centre

Figure 25 IPG Subdivision Strategy

Source: Urbis

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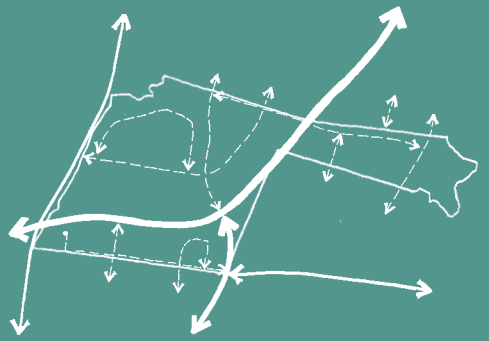
6.3 Built Form Design Principles

These built form design principles are to be read in conjunction with the Designing with Country principles in Section 5 and the Design Quality Strategy in Section 14. All development within the Master Plan is to have consideration to these built form design principles, where applicable.

CONNECTING WITH COUNTRY

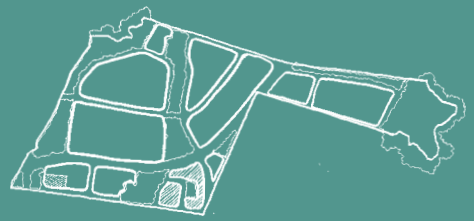
- **The convergence of three clans** - Engage with Dharug, Dharawal and Gandangara communities to understand the stories and creating safe and welcoming places/elements that reflect local narratives and stories for the Aboriginal community.
- **Water landscape** - Create a site that works with the natural landscape, and spaces that allow people to be amongst and connect with nature, encouraging them to develop a better understanding of Country.
- Utilise riparian corridors/natural waterways for the purpose of flood control measures/solutions as a natural and non-intrusive design.
- **Community driven** - Create community driven spaces with obvious connection to Country through story interpretation, ecotonal colour palettes, consideration of the natural environment and non human kin.

CONNECTIVITY



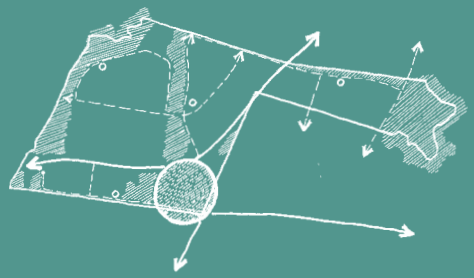
- **Deliver a well-connected and highly accessible precinct** with proximity to the Airport, Aerotropolis and Liverpool CBD - playing a critical role to the broader network of logistics, industry and employment for Western Sydney and beyond.
- **Create a precinct that balances the role and function of major movement corridors** with local place outcomes, and roads and streets integrated into the system of public spaces and places.
- **Support all modes of transport** to give people choice, including safe and enjoyable active transport links feeding into broader regional networks and integrated with the frequent and reliable public transport system.
- **Adopt a legible and efficient urban structure** underpinned by a simple grid.

PRODUCTIVITY



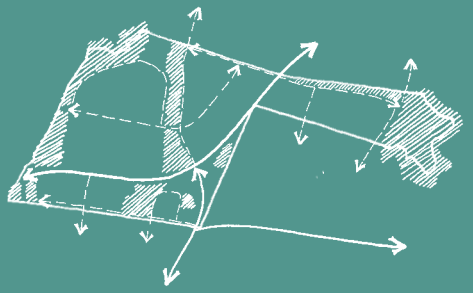
- **Intensify land uses** to promote a stronger and more productive economy that maximises infrastructure investment.
- **Provide a flexible and future proofed urban grain** that allows for an evolution of uses, densities and staging over time to cater for different tenants and building needs.
- **Foster a strong and collaborative relationship** between landowners, investors and all levels of government to deliver the vision for IPG.
- **Adopt a super lot strategy** that responds to market needs and allows for future transitions in land uses and densities.

LIVEABILITY



- **Deliver great places** within an activated core adjoining public transport nodes to enrich local character, vibrancy and bring people together.
- **Create an open space network** that promotes health and wellbeing through a connection with nature and a sense of community.
- **Deliver a connected network of active transport** routes integrated with the natural character the site to enhance the quality of life.
- **Create activated nodes** to be a community-focused hub offering the convenience of public and commercial services with an energising sense of civic and public connectivity.

SUSTAINABILITY



- **Promote tree canopy and diverse understory planting** to reduce the urban heat island effect, support ecological diversity and contribute to the future character and identity of the Parkland City.
- **Restore and revitalise riparian corridors** through the west and centre of the site, that cool the environment, enable water detention and retention, and connect to the history of the site.
- **Adopt waster sensitive urban design strategies** that positively contribute to the water quality, functionality and health of the Wianamatta-South Creek catchment.

6.4 Height of Buildings

Under the Precinct Plan a maximum height of buildings ranging from 24m to 52.5m is established across the IPG site. This Master Plan provides further guidance on appropriate height of buildings across the site replacing the height controls in the Precinct Plan in certain locations. The 52.5m height provision and the areas which it applies relate to the delivery of high-bay warehousing within the Western and Eastern Parcels and commercial buildings within the Local Centre only.

This Master Plan identifies a flexible height strategy to ensure the site can cater for a range of tenant requirements and industry/commercial operations. The WSAP reinforces the need to cater for emerging employment industries in defence and aerospace, advanced manufacturing and higher-order technology, all of which require varying industrial spaces and typologies as part of their operational needs. The Badgerys Creek Road Master Plan, given its proximity to the WSI, provides a significant opportunity to support greater productivity and an increase in jobs in these industries, and to fulfil the Aerotropolis vision.

There are emerging trends in employment and enterprise areas across Western Sydney with demand for new warehouse models such as logistics, storage and advanced manufacturing facilities which utilise new technologies and operation requirements. High-bay warehousing are examples of emerging trends in new warehouse and logistics typologies for industries which require taller warehouses to process fast-moving goods and advanced technologies.

Principles

1. Building height within Badgerys Creek Road Master Plan is to take into consideration the following principles:
   - Shadow impacts to neighbouring properties, public domain, existing and proposed vegetation.
   - Location and relationship with the surrounding built form and amenity.
   - Proportions and scale perceived from the street.
   - Outlook to the surrounding environment.
   - Density associated with the building typologies

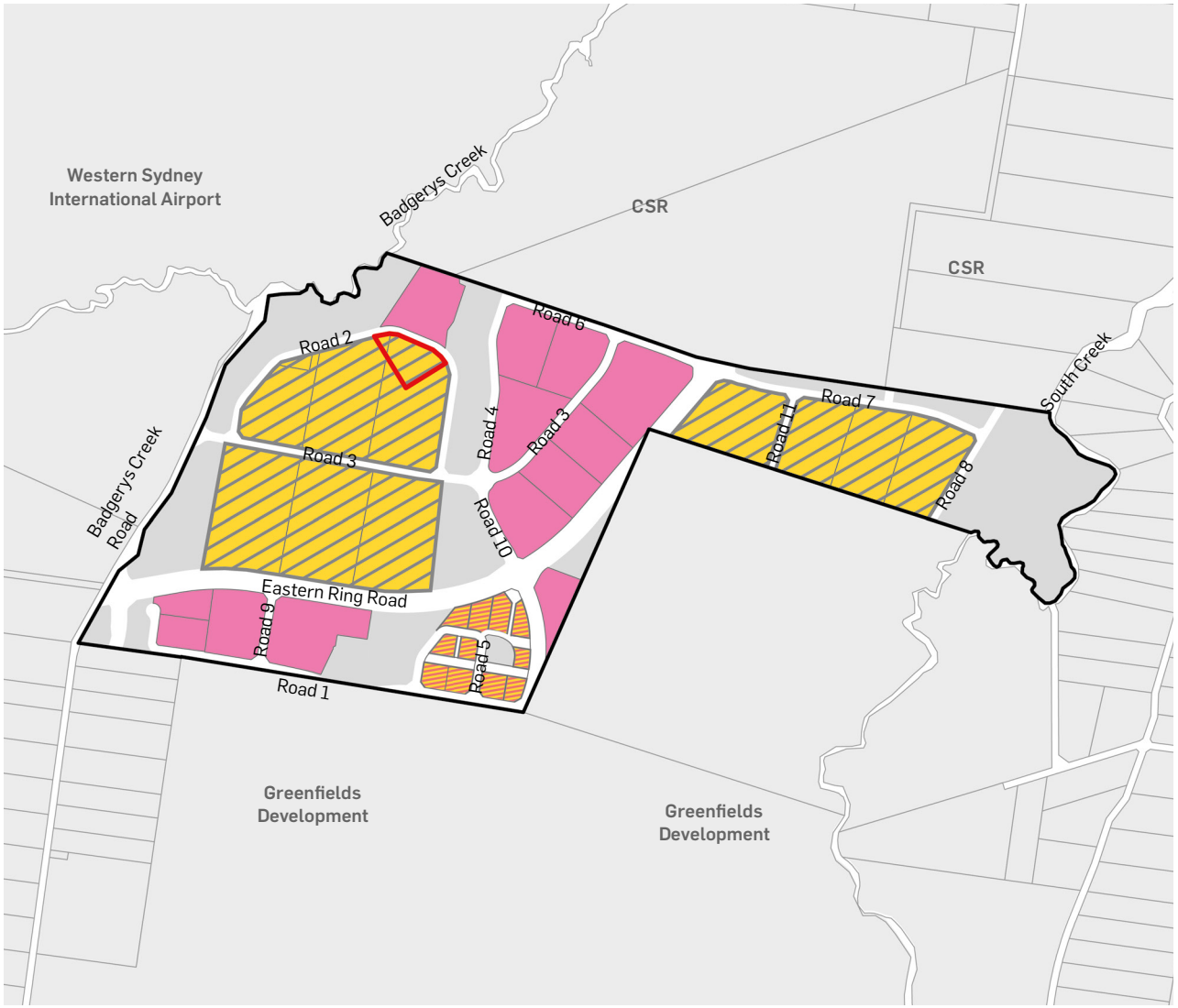
Additional Control

Enterprise and Industry

1. The height of buildings is not to exceed the maximum for the land shown on Figure 26.
2. Within the areas mapped in Figure 26 as 'Potential High Bay Warehousing', only development for the purpose of high bay warehousing can achieve the maximum building height of 52.5m, subject to the Design Quality provisions in Section 14 of this Master Plan.
3. Under this control, High Bay Warehousing is defined as warehousing related to a high bay warehouse operation above 24m in height.
4. Any other warehouse development typologies that is not related to high bay warehouse operations are not to exceed a maximum height of 24 metres.

Commercial

5. The height of buildings is not to exceed the maximum for the land shown on Figure 26.
6. Commercial buildings within the Local Centre and the location of taller buildings are to be designed generally in accordance with the indicative built form massing provided in the indicative height plan (Figure 26a).
7. All development within the Local Centre must meet with the Design Review Panel as per the requirements of the Design Quality Strategy in Section 14 of this Master Plan.
8. Commercial buildings within the Local Centre must not overshadow on the public domain and the Local Park.
9. Any other commercial buildings within the Local Centre that do not achieve the maximum height of 52.5m is to achieve a maximum of 26m (8 storeys), subject to meeting the Design Quality Strategy and overshadowing requirements, as shown indicatively in Figure 26a.



Legend

- Site Boundary
- Maximum Building Height: 24m
- Maximum Building Height: 52.5m
- Maximum Building Height: 52.5m (Commercial Buildings within the Local Centre)
- Maximum Building Height: 52.5m (Potential High Bay Warehousing)
- High-Bay warehouse development within the Wind Shear Area will require consultation with the relevant Commonwealth Department

Figure 26 Height Controls

Source: Urbis

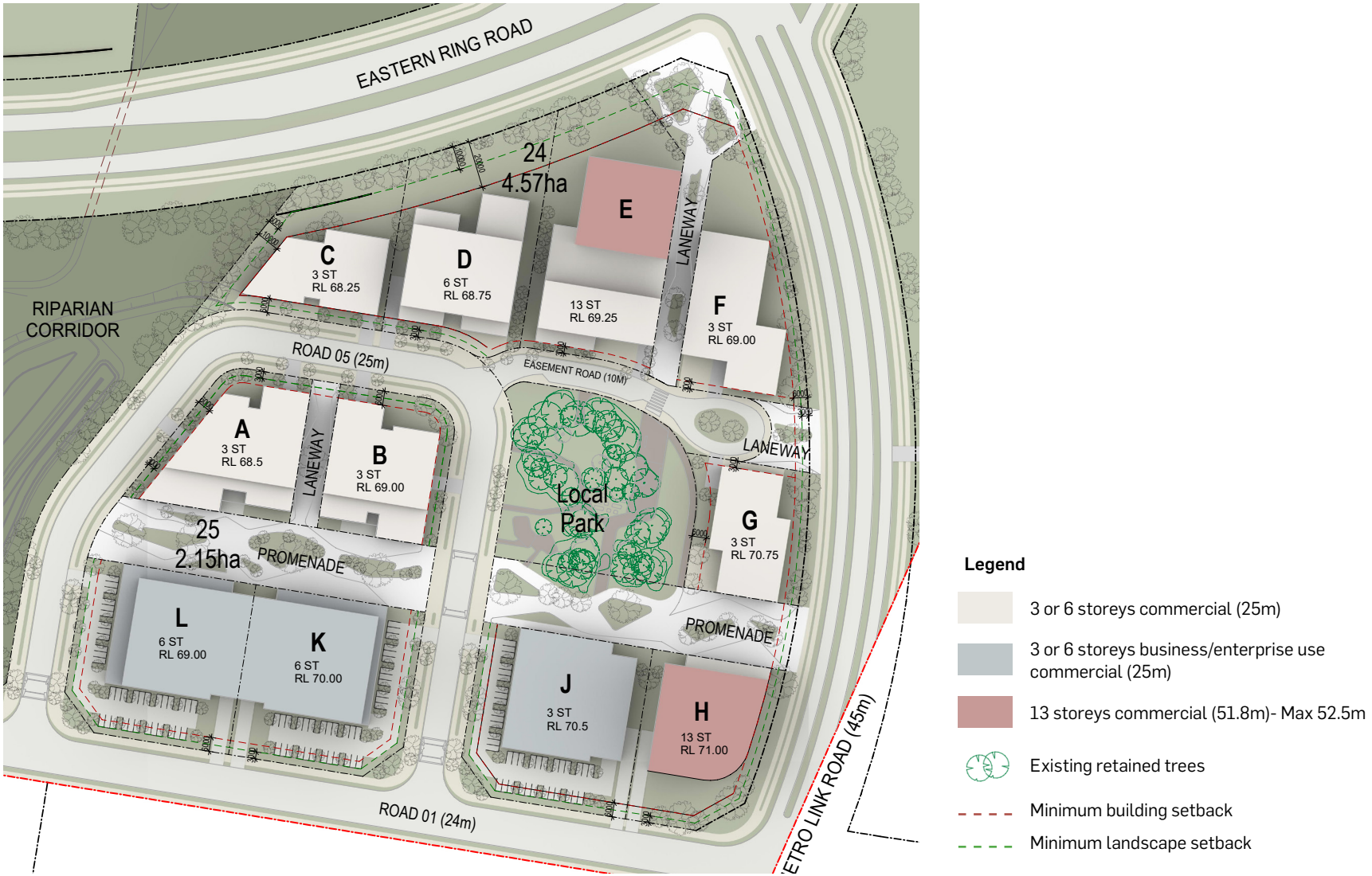


Figure 26a Local Centre – Indicative Height Distribution
Source: SBA

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6.5 Floor Space Distribution

6.5.1 Floor Space Ratio

The indicative maximum permissible gross floor area of individual development sites within the local centre is defined in Table 5 and Figure 27 below, in accordance with the Badgerys Creek Road Master Plan. Any future building, whether approved through the Complying Development pathway or Development Application process is required to demonstrate how development is consistent with the GFA allocation and cumulative FSR for the local centre.

Additional Control

1. The local centre within this master plan is to achieve a maximum floor space ratio control of 2:1.
2. The maximum FSR for the portion of land identified is a gross FSR and is taken to include the area of land proposed to be used as open space. The maximum FSR control is only applicable to developable areas within the Local Centre. Whilst the maximum FSR control is mapped for the entire Local Centre, development within the Local Centre must not exceed the indicative GFA capacity outlined in Section 6.5.2.
3. The area of land identified for open space within the Local Centre is to comply with the open space provisions within Section 9.1.

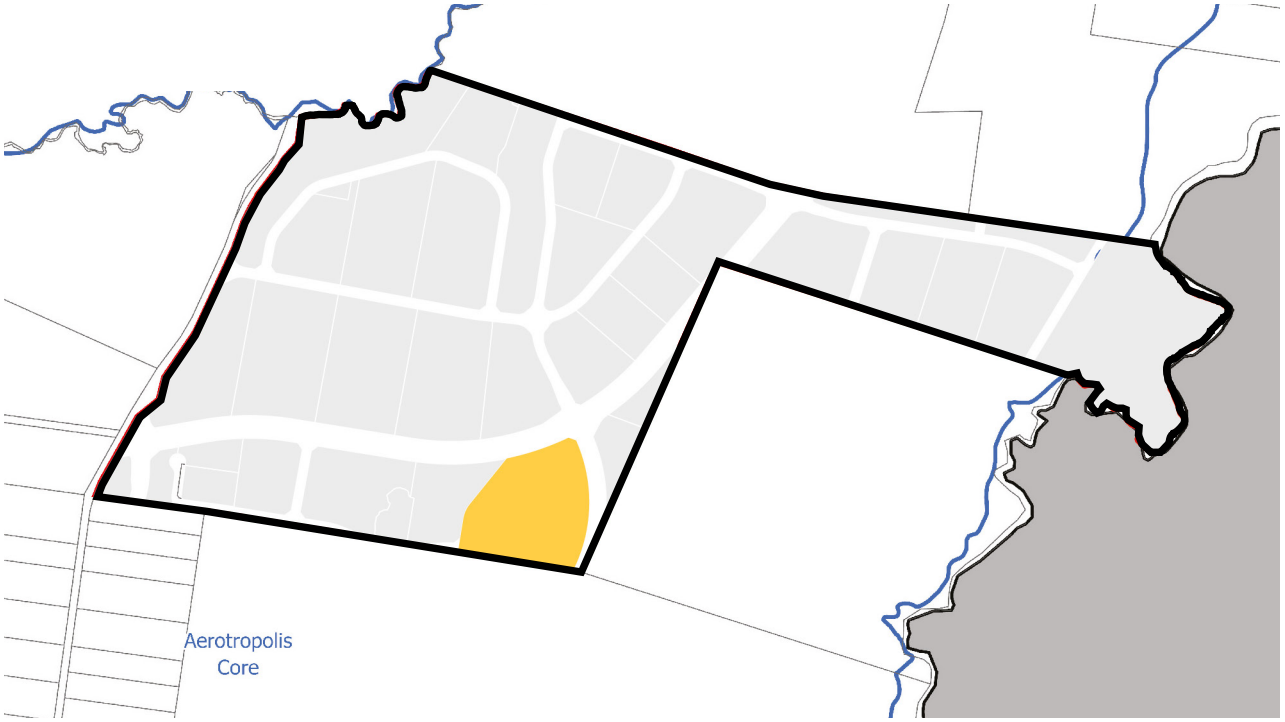


Figure 27 Proposed extent of the local centre within the site where the 2:1 FSR control applies

Source: Urbis

6.5.2 Indicative Gross Floor Area

The indicative Gross Floor Area (GFA) is calculated based on the proposed land use and indicative massing shown in Section 6.10 of this Master Plan. The massing study is aligned with the minimum building setback controls in the DCP in considerations of different uses and typologies proposed in the Master Plan.

It should be noted that the indicative GFA is only a guide for future development, with other parameters including height (Section 6.4) and setbacks (Section 6.6).

Objectives

- To deliver supportable industrial, commercial and retail floorspace within the Master Plan that aligns with market demand.
- To deliver an appropriate quantum of GFA that supports the vision of the Aerotropolis Core Precinct.

Additional Control

Enterprise and Industry

1. Indicative building GFA for the whole site (refer to Figure 28 and Figure 29) for the permissible land uses is to be generally in accordance with Table 5 below. Any future development, through the Complying Development pathway or Development Application process is required to demonstrate how development is consistent with the GFA allocation.
2. Enterprise and industrial development within the Master Plan are to achieve an indicative GFA of 496,755sqm (including ancillary office). This indicative GFA threshold can be exceeded subject to the delivery of high-bay warehousing in locations where this typology is permissible under the Master Plan.

Commercial

3. Commercial development within the Local Centre must not exceed the maximum permissible GFA of 91,540sqm.
4. The maximum permissible retail floorspace within the Local Centre must not exceed 4,900sqm.
5. The provision of retail uses within the Local Centre is to be limited to ground floor to provide activation to the public domain.

Table 5 Indicative GFA Summary

Land Uses	Indicative GFA (sqm)
Indicative Development Capacity (GFA)	
Enterprise and Industry	496,755
Business Park	6,579
Local Centre	111,838
Total Development Capacity	**615,172**
Indicative Commercial Demand (GFA)	
Commercial (including retail)	
Total Retail GFA	4,900*
Non-Retail – Large Gym	1,200
Non-Retail – Medical Centre / GP	500
Pub / Hotel	900
Commercial Office	84,040
Total Commercial Demand	**91,540**

* the total Retail GFA is informed by the IPG Master Plan Economic Assessment.

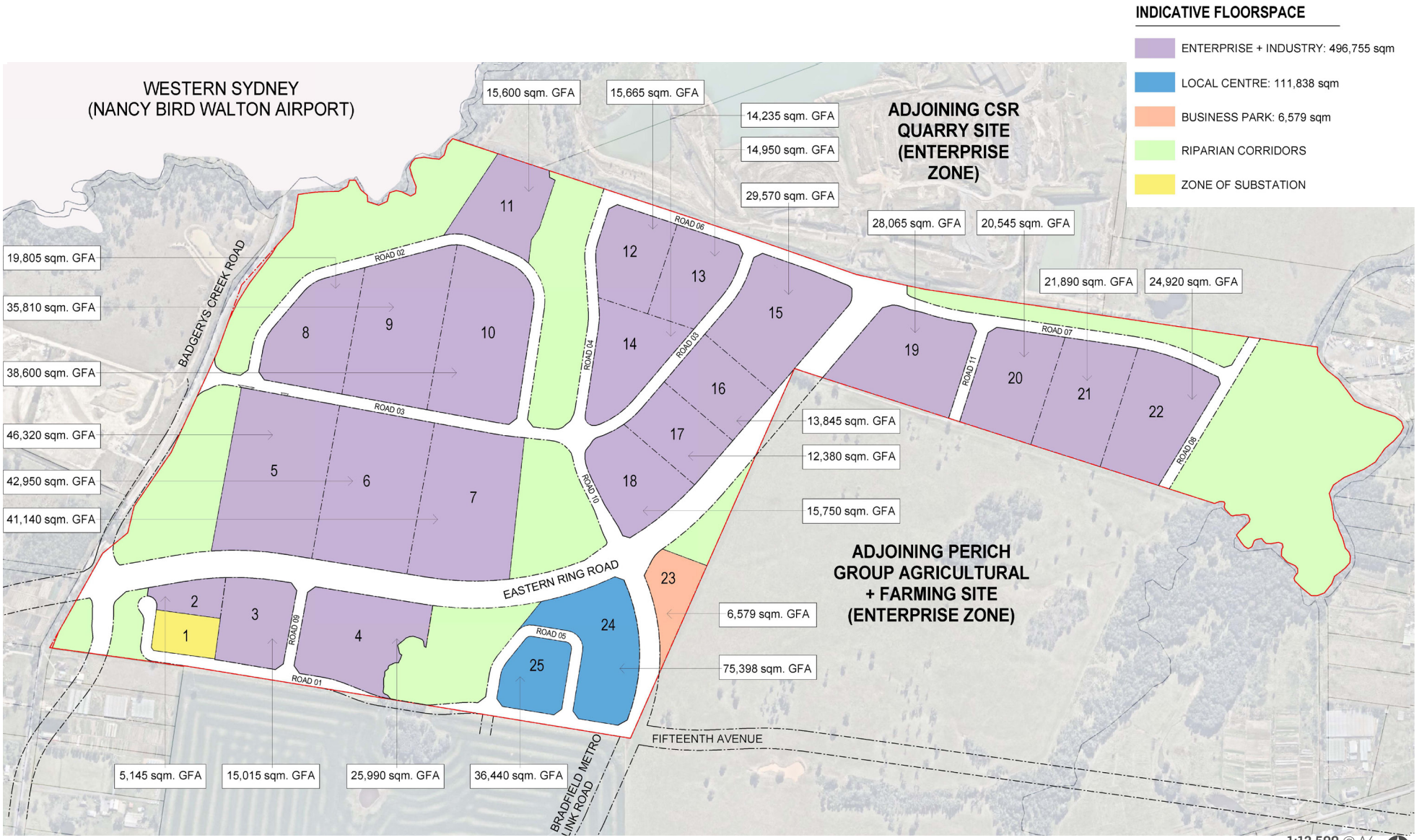


Figure 28 Indicative GFA Plan

Source: SBA

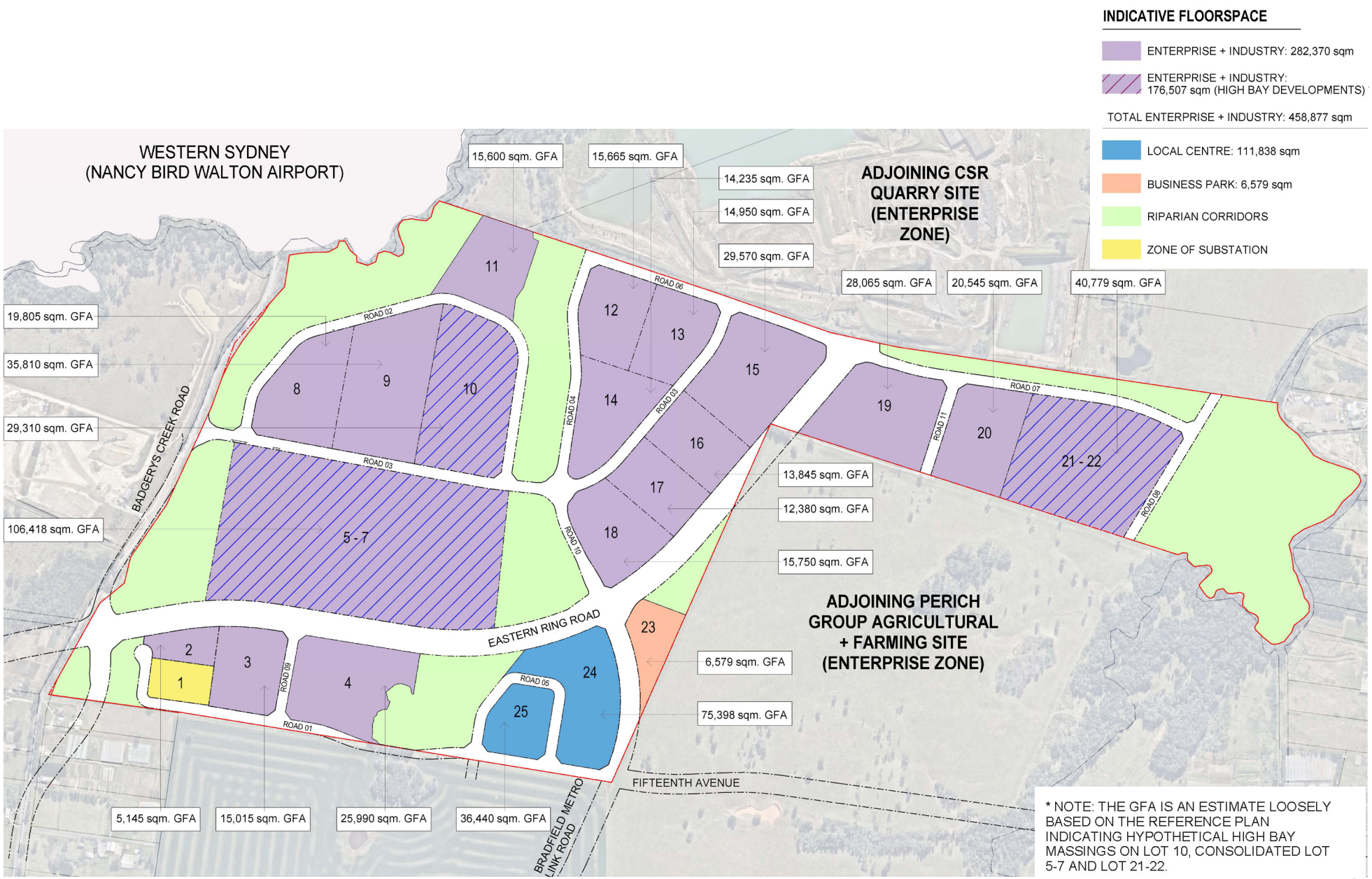


Figure 29 Indicative GFA Plan – High-Bay Option

Source: SBA

6.6 Building Setbacks

This section sets out additional principles and controls relating to building setbacks provisions in the DCP.

Objectives

- Additional setback has been proposed for potential High Bay Warehousing area to enhance the quality of the public domain and mitigate any adverse impacts from the proposed height.

Principles

1. Building setbacks within the Badgerys Creek Road Master Plan are to take into consideration the following principles:
   - Impact of scale to the public domain
   - Alignment with the immediate adjoining properties.
   - Pedestrian comfort and experience.
   - View to the Sky from the street and open spaces.
   - Street patterns and composition in relation to the street presentation.

Additional Control

1. Lots within the local centre fronting the Bradfield Metro Link Road are to achieve a building setback boundary of 6m.
2. Building setbacks for enterprise and industry land uses are to be consistent with Figure 30.

6.7 Building Separation

This section sets out additional controls relating to building separation provisions.

Principles

1. Building separation within the Badgerys Creek Road Master Plan are to take into consideration the following principles:
   - Development potential of adjoining future-built form.
   - Solar access to neighbouring buildings and public open space.
   - Service access.
   - Internal amenity and building depth.

Additional Control

1. Building separation for enterprise and industry land uses are to be consistent with the building separation provision within the DCP.

Legend

- Site Boundary
- Min. 7.5m Building Setback to Local Road (including min.4m landscaped area)
- Or min. 13m Building Setback to Local Road where off-street parking is included within the landscaped area (which should be minimum of 6m)
- Min. 5m Rear Setback (including min.3m landscaped area)
- 6m Building Setback along BMLR
- Min. 10m Building Setback to Riparian Corridor (including min.5m landscaped area)
- 13m Building Setback to Local Road (including min.10m landscaped area and swale)
- 13m Building Setback to Local Road (including min.6m landscaped area)
- 20m Building Setback to Classified Road (ERR, including min. 10m landscaped area)
- 15m Building Setback for Potential High Bay Warehouses
- 20m Building Setback for Potential High Bay Warehouses
- Local Centre - refer Figure 73 for Local Centre provisions

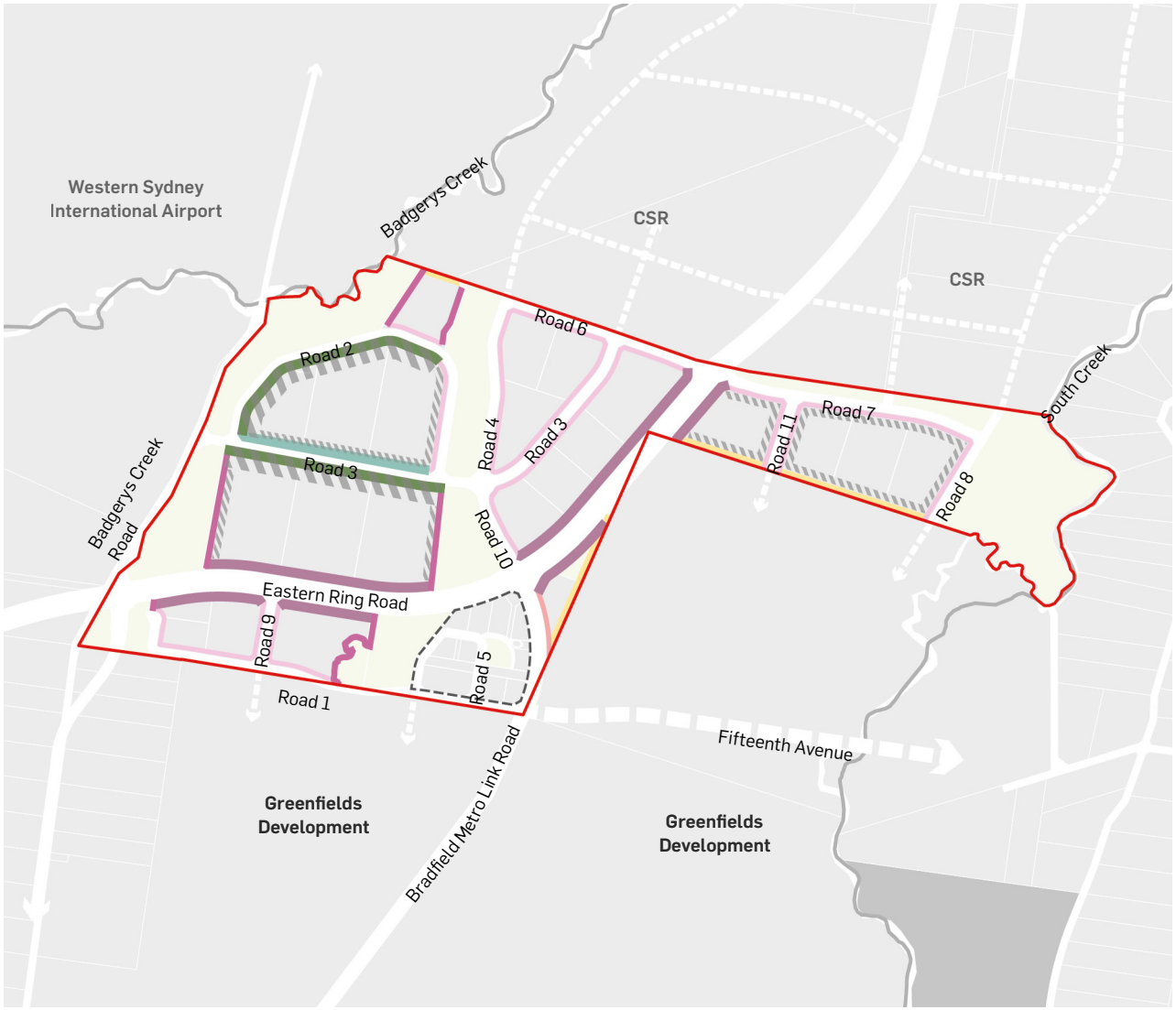


Figure 30 Proposed Building Setbacks for Enterprise and Industry

Source: Urbis

6.8 Street Frontage

This section sets out additional controls relating to street frontage provisions for enterprise, industrial and commercial uses within the Badgerys Creek Road Master Plan.

Objectives

- To deliver street frontages that improves the public domain and enhances the streetscape for the pedestrian experience.
- To ensure passive surveillance from the built form is supported along street frontages.
- Street frontage design for enterprise and industry land uses are to be consistent the building separation provision within the DCP.
- Street frontage design for commercial land uses is to be consistent the building separation provision within the DCP.

Enterprise and Industrial

Principles

1. Street frontage design for enterprise and industrial buildings within the Badgerys Creek Road Master Plan is to take into consideration the following principles:
   - Demarcation of building operations, spatial hierarchy and level of privacy.
   - Location of the ancillary offices to front the street, especially for the large and mid-sized format industrial lot, to provide finer built form with glazed facade treatment to increase the visual penetration and street activation.
   - Opportunities for views to the surrounding and key features.
   - Entries and accessibility and pedestrian safety.
   - Space for articulation of design and built form.
   - Passive surveillance to the street and riparian corridors.
   - Active engagement along the street interface which supports a natural outdoor environment.
   - Views to the internal streets and riparian corridors for community enjoyment.

Commercial

Principles

1. Street frontage design for commercial buildings within the Master Plan is to take into consideration the following principles:
2. Shadow impacts to neighbouring properties and public domain.
3. Location and relationship with the surrounding built form and amenity.
4. Proportions and scale perceived from the street.
5. Outlook to the surrounding environment.
6. Density associated with the building typologies.

Figure 31 Indicative Street Frontage Conditions for Enterprise and Industrial Buildings
Source: SBA Architects

Figure 32 Indicative Street Frontage Conditions for Commercial Buildings

6.9 Building Typology

This section provides additional building typology controls to inform the design approach and rationale for each of the proposed building typologies in the Badgerys Creek Road Master Plan. However, these proposals do not exclude other types of development permitted under the Enterprise zone.

Light Industrial Format Building

Principles

While light industrial envelopes are similar in many aspects, the block forms are generally more elongated and modulated. Light industrial format buildings are to consider the following principles:

1. Consider smaller hardstand areas, where possible, as side loading is possible.
2. Ancillary offices are to occupy the upper level, freeing the ground plane for other programs or activities.
3. Consider a highly adaptable built form, such as through the integration of individual compact modules organised in row form. This form is highly adaptable due to the compact modulation and suited for irregular shaped site.
4. Consideration of hybrid of programs comprising spaces such as showroom, storage, small scale manufacturing and so on.
5. Integrated communal spaces such as footpath and pocket gardens for various tenancies within one lot.

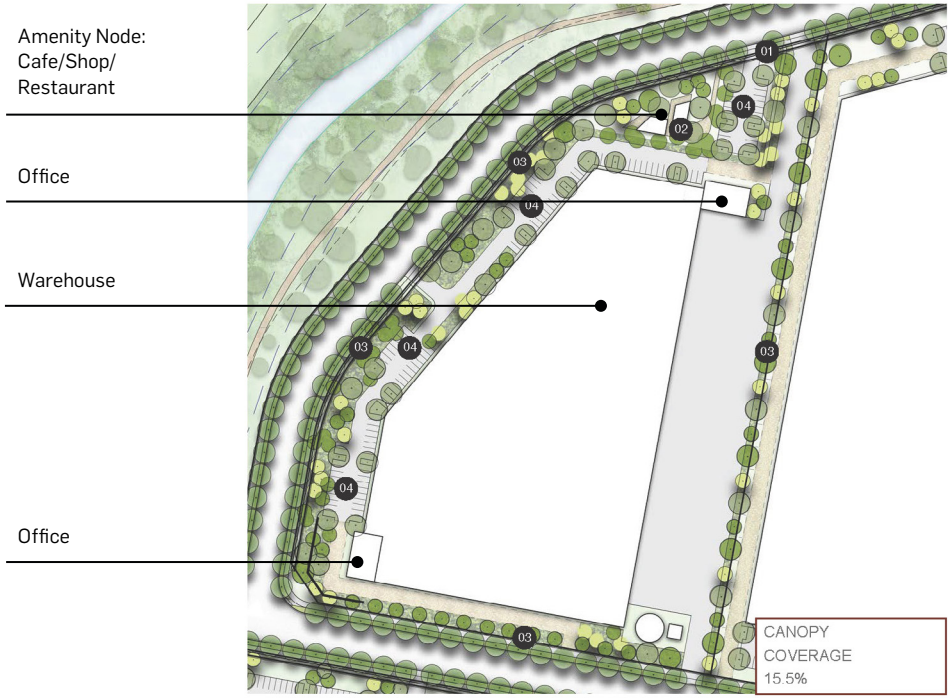
Medium Industrial Format Building

Principles

Typical mid-sized format industrial building envelopes are characterised by a large rectangular geometry, which works best with the simple grid system of the Master Plan.

In addition, typical mid-sized industrial buildings are to consider the following principles:

1. Adequate parking allowance is to be provided, in accordance with DCP requirements.
2. Ensure appropriate setbacks and deep soil is provided to soften interfaces with the public domain and adjoining sites.
3. Where ancillary offices are proposed, this attachment to industrial buildings is to be designed in a way that reflects the symbiotic relationship between these two differing typologies.
4. Hardstand provisions for loading services is to be delivered in accessible locations that do not impact on pedestrian and vehicular movement.
5. Provision of amenity, including communal areas, is to be a place of refuge supported by generous landscaping areas.



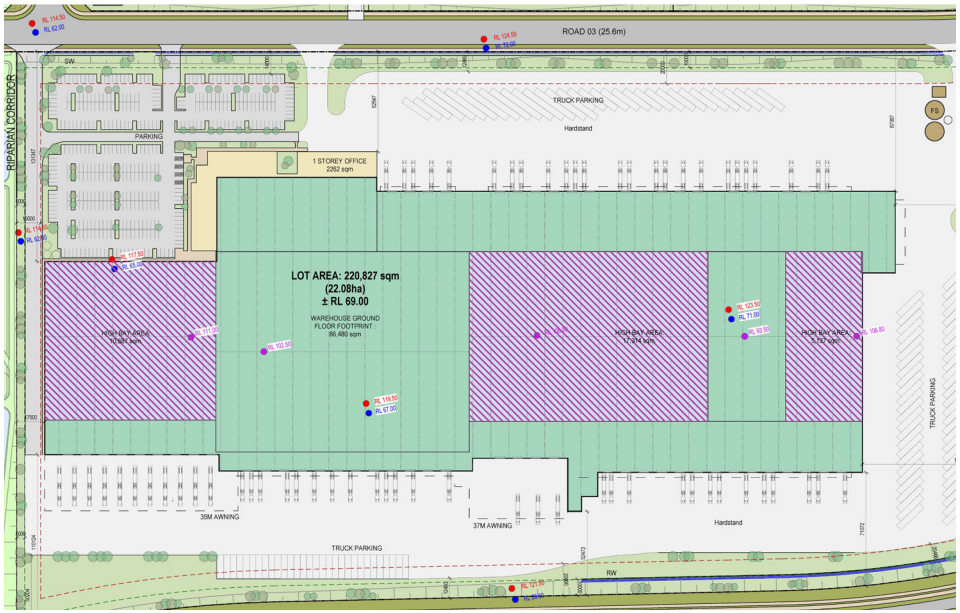
Large Format Industrial Building

Principles

Typical large format industrial building envelopes are characterised by a large rectangular geometry, which works best with the simple grid system of the Master Plan.

In addition, typical large format industrial buildings are to consider the following principles:

1. Adequate parking allowance is to be provided, in accordance with DCP requirements.
2. Ensure appropriate setbacks and deep soil is provided to soften interfaces with the public domain and adjoining sites.
3. Where ancillary offices are proposed, this attachment to industrial buildings is to be designed in a way that reflects the symbiotic relationship between these two differing typologies.
4. Hardstand provisions for loading services is to be delivered in accessible locations that does not impact on pedestrian and vehicular movement.
5. Provision of amenity, including communal areas, is to be a place of refuge supported by generous landscaping areas.



Large Format Industrial Buildings

High-Bay Warehouse Building

Principles

The High-Bay warehouses within the site require the design considerations as follows:

1. Suitable scale to accommodate potential use for cold storage, food production and specialised manufacturing.
2. Shadow impact towards sensitive areas such as public domain and ancillary office in relation to the position of the High Bay component exceeding 35m in height.
3. Perceived visual impact of the building component that exceeds 24m height limit.
4. Lot sizes and layouts of the High-Bay Warehouses lots can be varied according to the industrial practice.

High-Bay Warehouse Buildings

Commercial Buildings and Ground Floor Retail within Local Centre

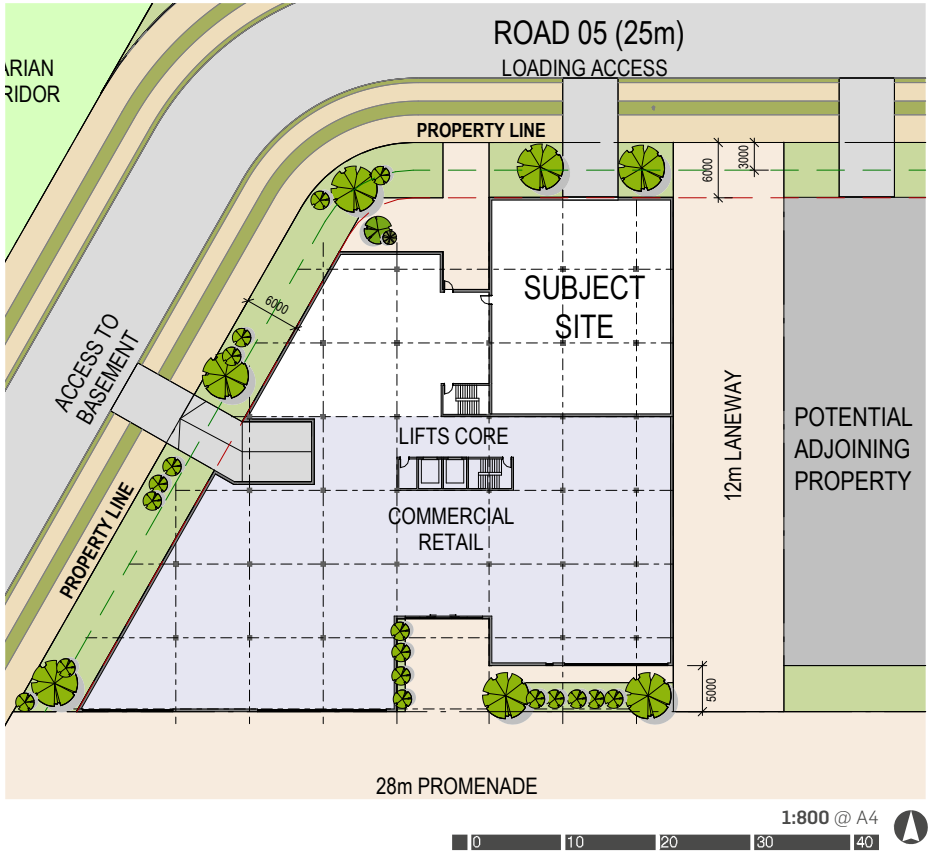
Principles

The commercial and retail building envelopes within the Local Centre, comprise a series of freestanding forms organised along the street. Responding to site conditions, each geometry is then repeatedly staggered, tapered, bent or split in order to:

1. Create rhythm and actively engage the streetscape.
2. Increase porosity for pedestrian connectivity to adjoining development.
3. Widen footpath and reduce shadow impact to public domain.
4. Create diverse commercial built options.

Design approach:

- Open plan office with central lift core to provide a flexible framework for occupation
- External expression designed to accommodate different tenancies while maintaining the integrity of the design
- Embedding the idea of wellness for workplace
- Integration of urban terrace as part of the feature design
- Planning of entry, actives uses and services



6.10 Site Massing

The sections below provide indicative built form massing across the Master Plan. It also includes indicative built form massing for the high-bay warehousing option.

Legend

- Warehouse
- Ancillary Office
- Commercial / Retail
- Business / Enterprise Use
- Local Park
- Substation
- Amenities
- Riparian Corridors
- Business Park
- Future Cul-de-sac
- Fire Services
- Hardstand
- Fire Trail
- Footpaths
- Storage Basin
- Swale
- Retaining Wall
- Existing Trees

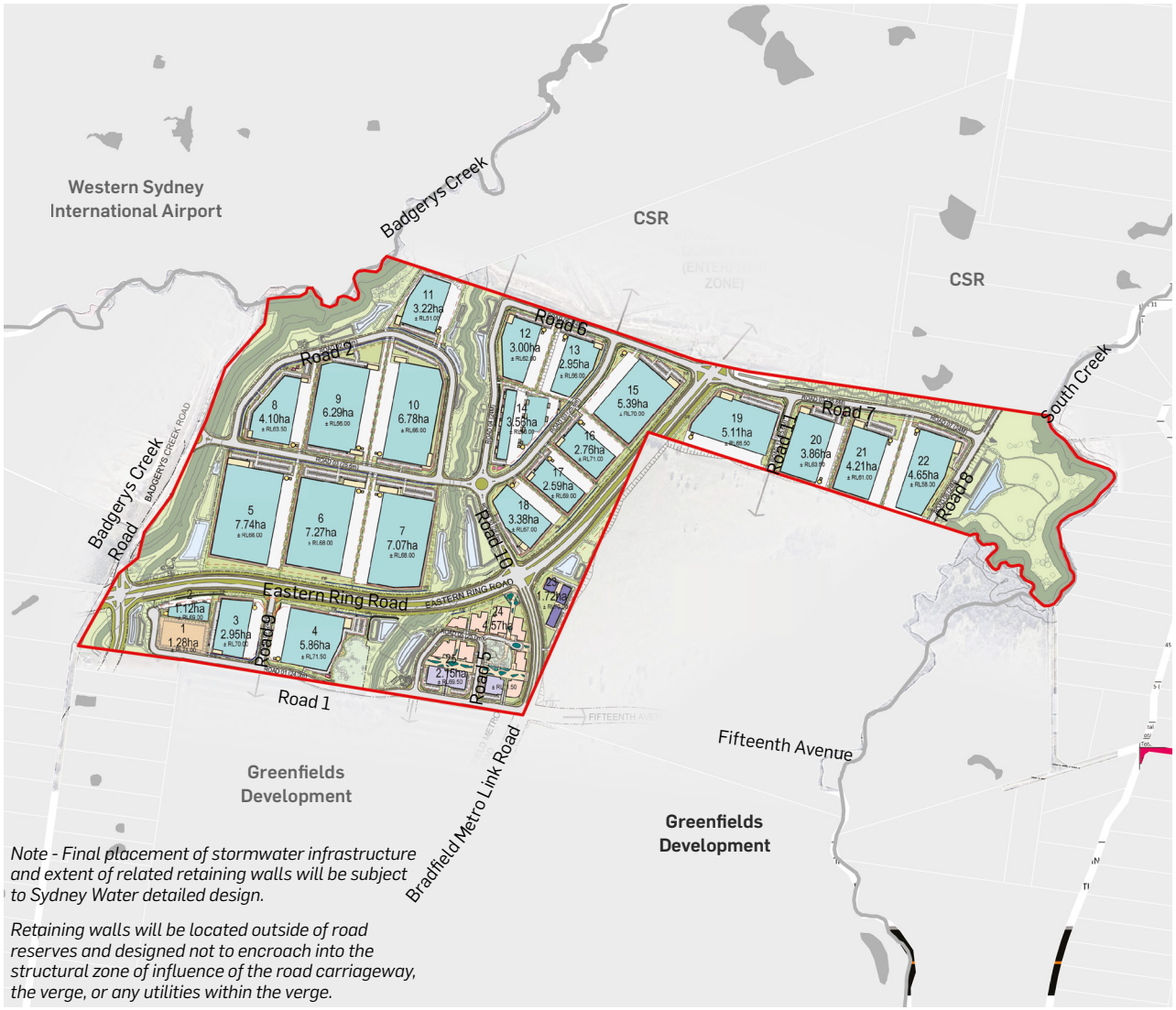


Figure 33 Proposed Master Plan with Site Massing

Source: SBA Architects

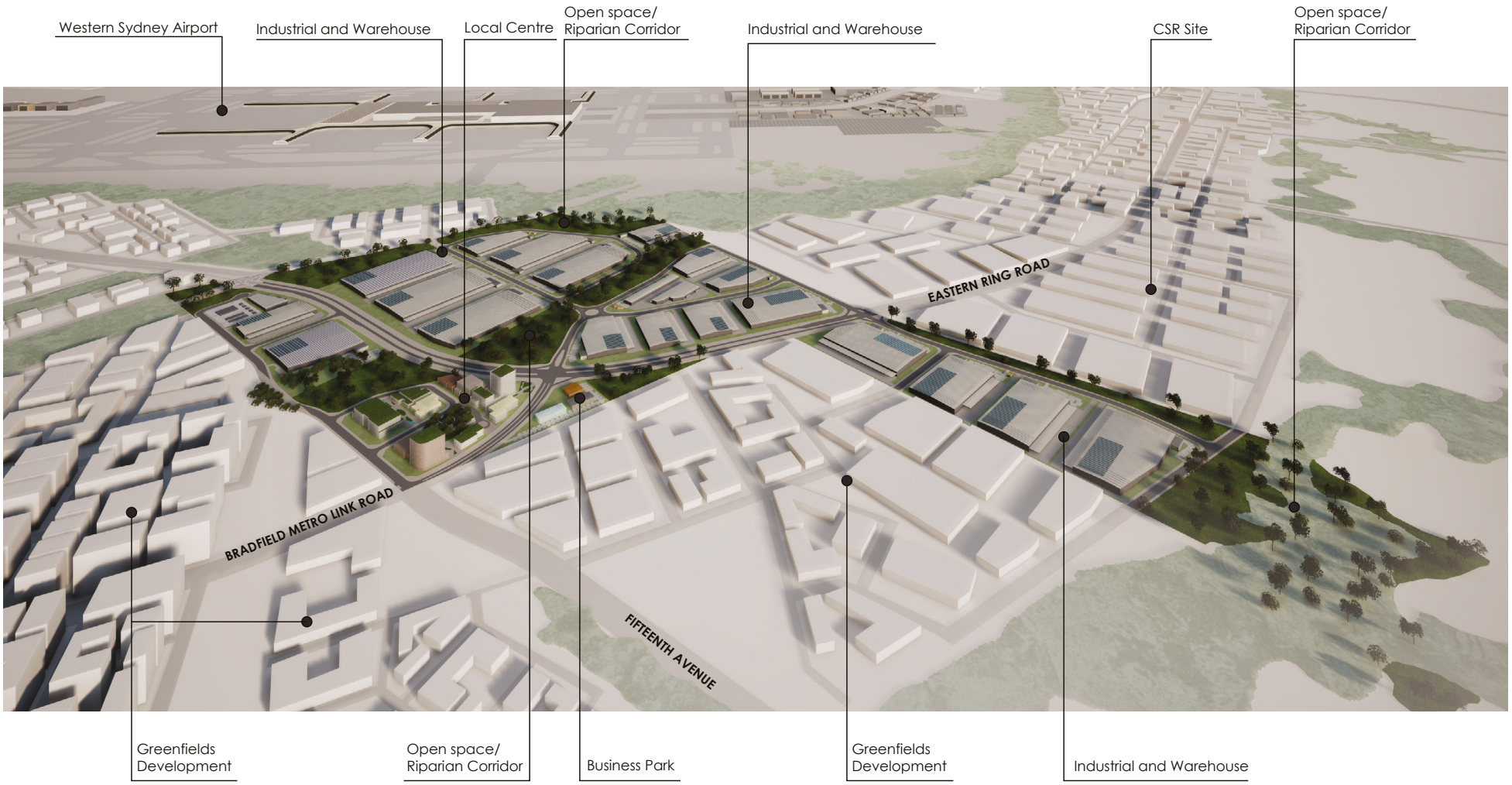


Figure 34 Proposed Master Plan with Site Massing - Perspective
Source: SBA Architects

6.10.1 High Bay Development Option

Legend

- Warehouse - up to 24m
- Ancillary Office
- Commercial / Retail
- Business / Enterprise Use
- Local Park
- Substation
- Amenities
- Riparian Corridors
- Business Park
- Future Cul-de-sac
- Fire Services
- Hardstand
- Fire Trail
- Footpaths
- Storage Basin
- Swale
- Retaining Wall
- Existing Trees
- High Bay Component Height Exceeding 35 m but below 52.5 m
- Warehouse Height Below 35 m

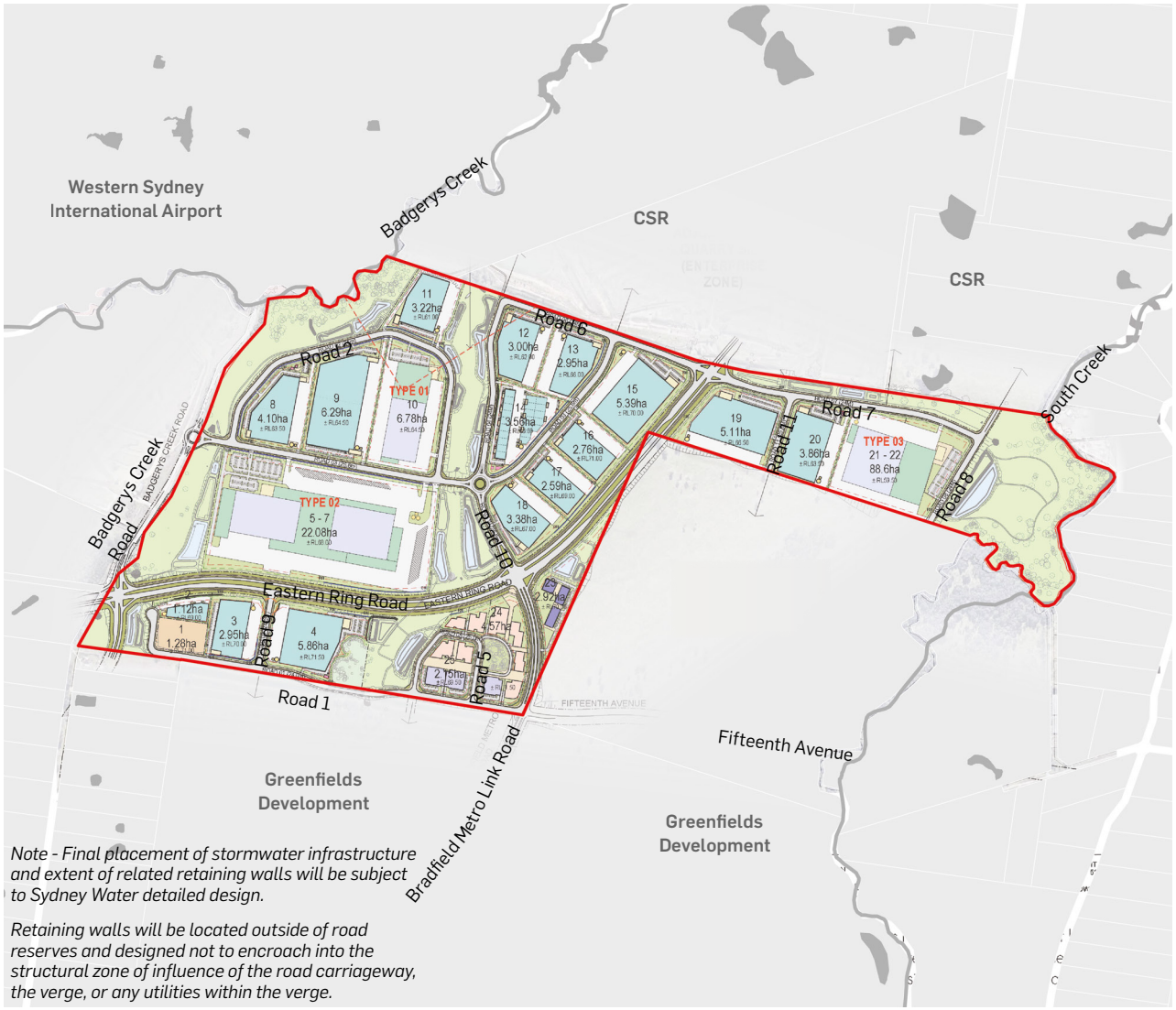


Figure 35 Proposed Master Plan – High Bay Option

Source: SBA Architects

Figure 36 Proposed Master Plan High Bay Option - Perspective
Source: SBA Architects

6.11 Other Provisions

6.11.1 Noise

Additional Control

1. Any Noise Report that is prepared for a development application or proposal for complying development to be lodged under this Master Plan should have regard to the locations mapped in Figure 37 and listed in Table 6, along with the associated noise criteria established for these areas within Table 7, Table 8 and Table 9.
2. Consideration of the following design measures to mitigate noise impacts to surrounding sensitive uses is required:

Western Parcel and Central Portion of the site

- Consider intensive 24/7 operations including distribution centres and advanced manufacturing.
- Consider utilising Central portion of the site for light industrial (bulky goods), commercial and retail uses.

Eastern Parcel

- Consider building heights and utilisation of building structures and orientation of loading docks to provide acoustic shielding where practical.

Local Centre

- Retail/hospitality uses in proximity to potential sensitive land uses (mixed use on landholding to the south-east).
- Consider distance separation and utilisation of building structures to provide acoustic shielding.

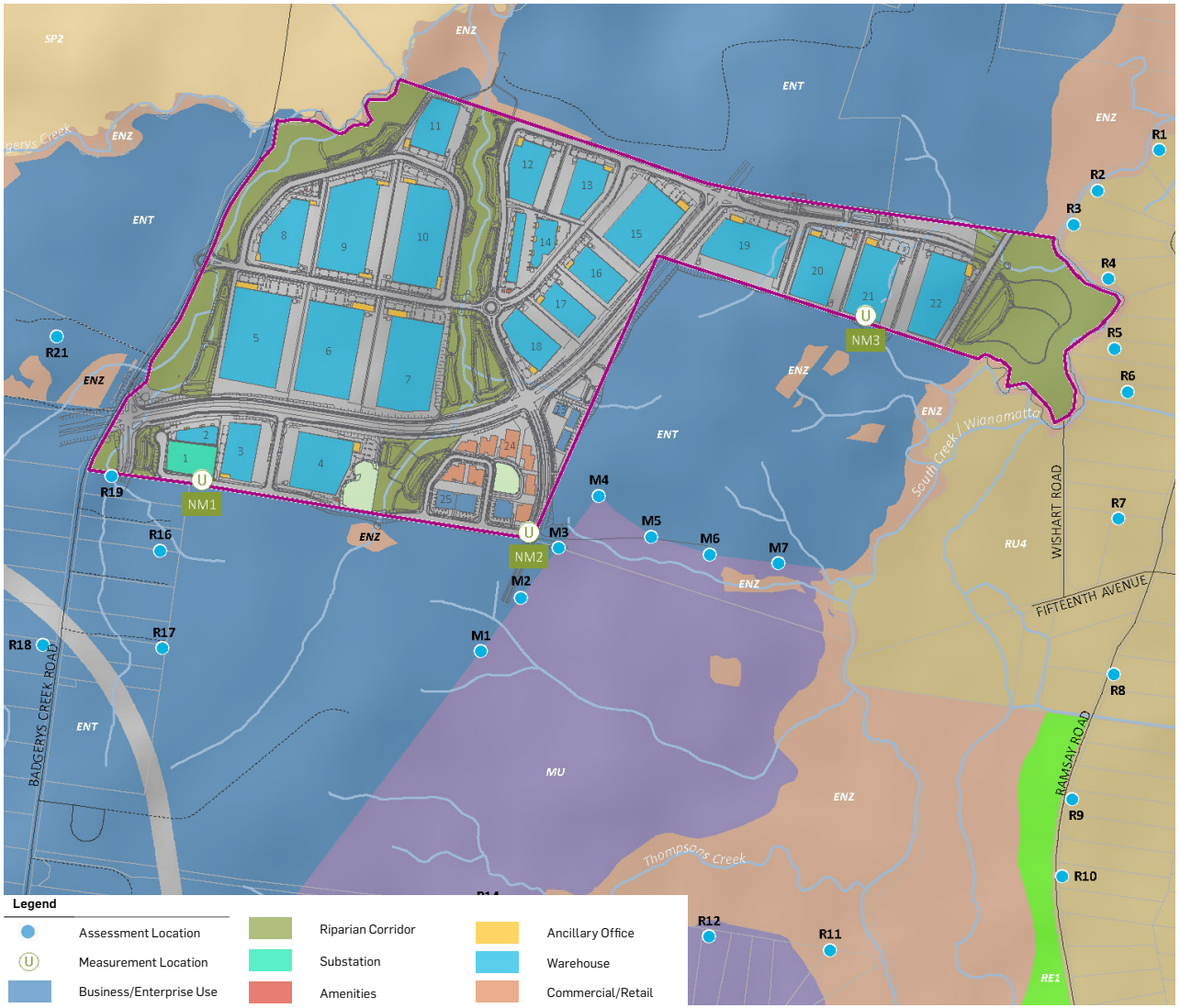


Figure 37 Monitoring and Assessment Locations

Source: EMM

- Consider restriction of hours of use where retail/ hospitality are in close proximity to sensitive receivers (mixed use on ladholding to the south-east).

3. For new buildings and changes of use of existing buildings to be complying development, a Noise Report must be prepared by a qualified acoustic consultant and provided to the registered certifier which verifies that:

a. The proposed development meets the specified noise allowances established for the relevant lot set out in Table 7, Table 8 and Table 9.

b. Compliance with the allowances for the relevant lot is to be demonstrated through the preparation of a Noise Report for proposed lot which is to accommodate the intended use of the site including:
   - Hours of use
   - Vehicle movements (heavy and light)
   - External logistics activities – fork trucks, tele handlers, other external mobile plant and equipment
   - Internal activities including space averaged noise levels, building construction and potential for noise breakout from building structure (walls roof) or open doors
   - Fixed mechanical plant to service warehouse, climate controlled facilities and ancillary offices.

c. The Noise Report must demonstrate through noise modelling (utilising a noise modelling program such as iNoise, CadnaA, SoundPLAN) that the noise allowances outlined in Table 7, Table 8 and Table 9 for the relevant lot as identified by assessment locations identified at Figure 37 and Table 6, considering all envisaged site activities for:
   - Day, evening and night operational assessment periods
   - Review potential for sleep disturbance impacts on Rossmore and Kemps Creek and future mixed-use development to the south at residential building facades
   - Consider requirements of Fact Sheet C of the Noise Policy for Industry for annoying noise characteristics
   - Consider requirements of Fact Sheet D noise enhancing weather conditions
   - Provision of noise management plan (NMP) for the specific lots to ensure continued compliance with the allocated noise lot allowances.

d. The Noise Report shall be prepared by suitably qualified and experienced acoustic practitioner (e.g. a member of the Australian Acoustical Society, the Institution of Engineers, the Association of Australasian Acoustical Consultants, or a person with other appropriate professional qualifications).

4. Where lots are amalgamated, the noise assessment for the development must not exceed the average noise allowance level for the combined lots.

Table 6 Noise Planning Assessment Locations

Assessment location	NCA	Zone	Coordinates	
			Eastings	Northings
R1	NCA1 – East – Residential	MGA Grid 56	293420	6246666
R2	NCA1 – East – Residential	MGA Grid 56	293242	6246549
R3	NCA1 – East – Residential	MGA Grid 56	293173	6246451
R4	NCA1 – East – Residential	MGA Grid 56	293273	6246295
R5	NCA1 – East – Residential	MGA Grid 56	293291	6246093
R6	NCA1 – East – Residential	MGA Grid 56	293328	6245970
R7	NCA1 – East – Residential	MGA Grid 56	293302	6245605
R8	NCA1 – East – Residential	MGA Grid 56	293288	6245158
R9	NCA1 – East – Residential	MGA Grid 56	293169	6244798
R10	NCA1 – East – Residential	MGA Grid 56	293140	6244577
M1	NCA2 – South East – Mixed Use – Future Development	MGA Grid 56	291465	6245224
M2	NCA2 – South East – Mixed Use – Future Development	MGA Grid 56	291581	6245378
M3	NCA2 – South East – Mixed Use – Future Development	MGA Grid 56	291689	6245519
M4	NCA2 – South East – Mixed Use – Future Development	MGA Grid 56	291805	6245669
M5	NCA2 – South East – Mixed Use – Future Development	MGA Grid 56	291955	6245552
M6	NCA2 – South East – Mixed Use – Future Development	MGA Grid 56	292124	6245500
M7	NCA2 – South East – Mixed Use – Future Development	MGA Grid 56	292323	6245475
R11	NCA3 – South / Southwest / West – Residential / Enterprise	MGA Grid 56	292470	6244363
R12	NCA3 – South / Southwest / West – Residential / Enterprise	MGA Grid 56	292123	6244402
R13	NCA3 – South / Southwest / West – Residential / Enterprise	MGA Grid 56	291863	6244426
R14	NCA3 – South / Southwest / West – Residential / Enterprise	MGA Grid 56	291484	6244473
R15	NCA3 – South / Southwest / West – Residential / Enterprise	MGA Grid 56	290430	6244497
R16	NCA3 – South / Southwest / West – Residential / Enterprise	MGA Grid 56	290540	6245513
R17	NCA3 – South / Southwest / West – Residential / Enterprise	MGA Grid 56	290546	6245233
R18	NCA3 – South / Southwest / West – Residential / Enterprise	MGA Grid 56	290201	6245242
R19	NCA3 – South / Southwest / West – Residential / Enterprise	MGA Grid 56	290400	6245727
R20	NCA3 – South / Southwest / West – Residential / Enterprise	MGA Grid 56	289816	6245503
R21	NCA3 – South / Southwest / West – Residential / Enterprise	MGA Grid 56	290243	6246129

Table 7 NCA1 Noise Allowances - Residential (Rural)

Lot	Noise Allowance at the receiver, $L_{Aeq,period}$*		
	Day	Evening	Night
Lot 1 - Substation	19	19	19
Lot 2	24	19	14
Lot 3	30	25	20
Lot 4	33	28	23
Lot 5	34	29	24
Lot 6	34	29	24
Lot 7	34	29	24
Lot 8	31	26	21
Lot 9	34	29	24
Lot 10	33	28	23
Lot 11	29	24	19
Lot 12	29	24	19
Lot 13	29	24	19
Lot 14	33	28	23
Lot 15	31	26	21
Lot 16	27	22	17
Lot 17	28	23	18
Lot 18	29	24	19
Lot 19	31	26	21
Lot 20	28	23	18
Lot 21	29	24	19
Lot 22	29	24	19
Lot 23	27	22	17
Lot 24	31	26	21
Lot 25	27	22	17
TOTAL	**45**	**40**	**35**

* Note: for $L_{Aeq,15min}$ a 3 dB allowance may be added in accordance with the procedures of the Npfl

Table 8 NCA2 Noise Allowances - Mixed Use (Urban)

Lot	Noise Allowance at the receiver, $L_{Aeq,period}$*		
	Day	Evening	Night
Lot 1 - Substation	18	18	18
Lot 2	34	24	19
Lot 3	40	30	25
Lot 4	43	33	28
Lot 5	44	34	29
Lot 6	44	34	29
Lot 7	44	34	29
Lot 8	41	31	26
Lot 9	43	33	28
Lot 10	43	33	28
Lot 11	39	29	24
Lot 12	39	29	24
Lot 13	39	29	24
Lot 14	43	33	28
Lot 15	41	31	26
Lot 16	37	27	22
Lot 17	38	28	23
Lot 18	39	29	24
Lot 19	40	30	25
Lot 20	38	28	23
Lot 21	39	29	24
Lot 22	39	29	24

Table 9 NCA3 Noise Allowances - Commercial

Lot	Noise Allowance at the receiver, $L_{Aeq,period}$*
	All periods
Lot 1 - Substation	24
Lot 2	39
Lot 3	45
Lot 4	48
Lot 5	49
Lot 6	49
Lot 7	49
Lot 8	46
Lot 9	48
Lot 10	48
Lot 11	44
Lot 12	44
Lot 13	44
Lot 14	48
Lot 15	46
Lot 16	42
Lot 17	43
Lot 18	44
Lot 19	45
Lot 20	43
Lot 21	44
Lot 22	44
Lot 23	45
Lot 24	46
Lot 25	43
TOTAL	**60**

* Note: for $L_{Aeq,15min}$ a 3 dB allowance may be added in accordance with the procedures of the NPfI

6.11.2 Air Quality

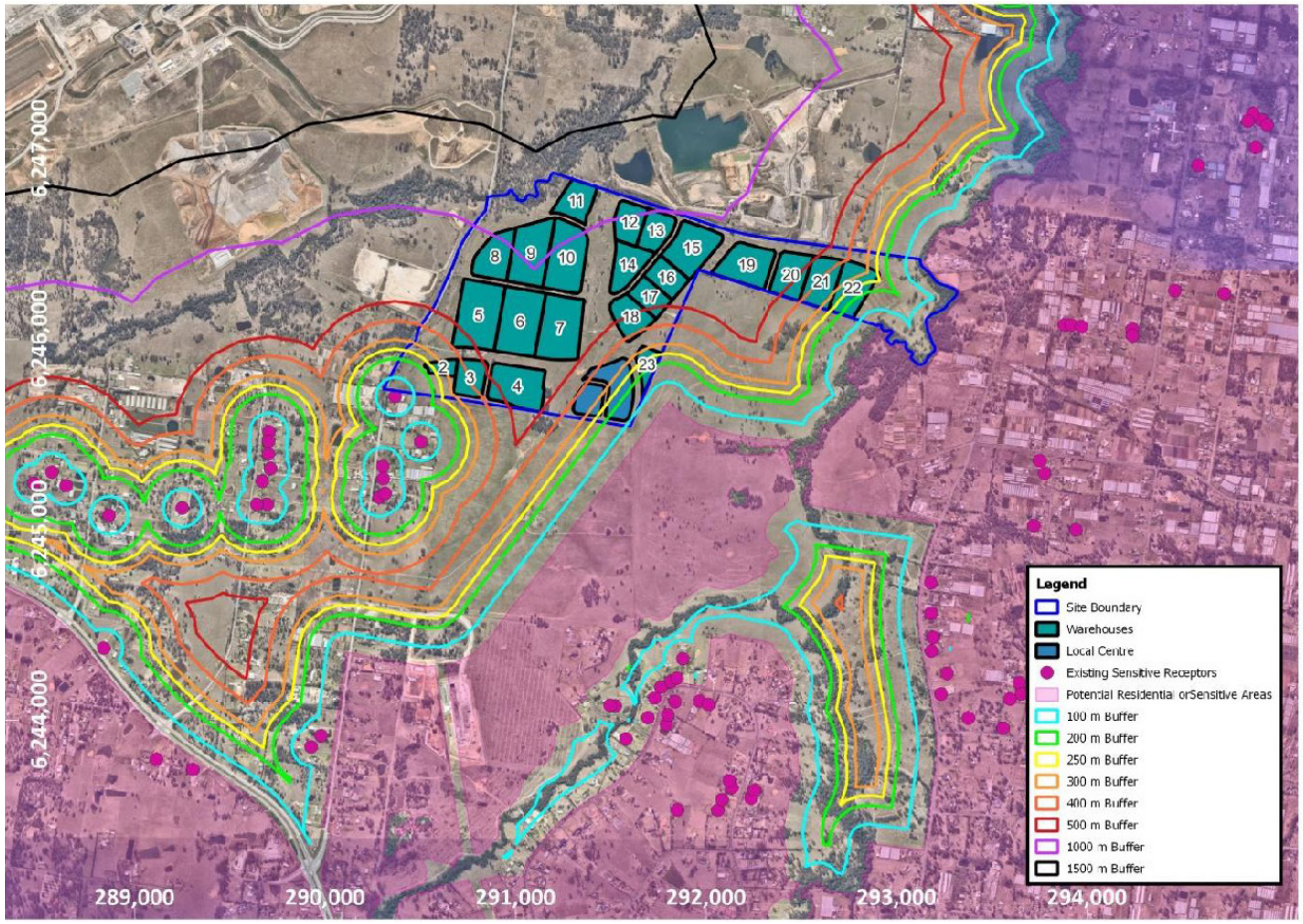
Additional Control

1. To ensure there are no air quality impacts to existing sensitive receptors, as identified in Figure 38, future complying development for industry uses (which excludes warehouse and distribution centres and commercial premises) must comply with the recommended separation distances in Figure 38 and Table 10.

Table 10 Potential Future Infustries and their recommended locations

Activity Type	Recommended Separation Distance	Potential Locations
Abrasive blasting	100	WH2 – WH23
Plaster and plaster article manufacture	200	WH2 – WH21
Motor body works		
Transport vehicles depot		
Coffee roasting	250	WH3 – WH21
Retreading tyres	300	WH3 – WH20
Bakeries	500	WH6 – WH16 WH19
Oil or fat processing		
Food processing		
Seafood processing		
Ceramic works		
Glass or glass fibre manufacturing		
Foundries – metal melting or casting		
Scrap metal recovery		
Spray painting		
Galvanising		
Wood processing works		
Foam products manufacturing		
Fibre-reinforced plastic manufacturing		
Printing		

Source: SLR



Note - Final placement of stormwater infrastructure and extent of related retaining walls will be subject to Sydney Water detailed design.

Retaining walls will be located outside of road reserves and designed not to encroach into the structural zone of influence of the road carriageway, the verge, or any utilities within the verge.

Figure 38 Recommended Separation Distances for Various Activities
Source: SLR

6.11.3 Waste Management

Additional Control

1. In accordance with good practice waste management, the following specific procedures is to be implemented for development within the Master Plan, where appropriate:
   - On-site source separation to ensure efficient recycling
   - Concrete, tiles and bricks reused or recycled off-site
   - Steel recycled off-site, and all other metals recycled where economically viable
   - Framing timber recycled off-site
   - Windows, doors and joinery off-site, where possible
   - All glass that can be economically recycled will be recycled
   - All solid waste timber, brick, concrete, rock that cannot be reused or recycled will be taken to an appropriate facility for treatment to recover further resources or for disposal to landfill in an approved manner
   - Re-use of materials on-site where possible
   - Separate waste bins for recyclable and non-recyclable general waste
   - Assess excavation spoil for contamination status and beneficial re-use
   - Retain used crates for storage purposes unless damaged • Recycle cardboard, glass and metal waste
   - Provide sufficient space for storage of garden waste and other waste materials on-site
   - Dispose of all asbestos, hazardous and/or intractable waste in accordance with SafeWork NSW and NSW EPA requirements
   - All used crates will be stored for reuse unless damaged
   - Deliver batteries to drop off-site recycling facility, and
   - Where source separation is utilised, materials are to be kept uncontaminated to guarantee the highest possible re-use value.
2. Contaminated materials including fill materials and soils must be assessed by an appropriately qualified and experienced environmental consultant for remediation and management options.
3. All asbestos and other hazardous waste must be handled according to appropriate legislation and regulation including the Work Health and Safety Regulation 2011 and disposed of in accordance with the SafeWork NSW and relevant EPA requirements.
4. Any waste requiring off-site management must be classified in accordance with Waste Classification Guidelines Part 1: Classifying Waste (EPA, 2014) and transported to a facility lawfully authorised to receive, re-use and dispose of that waste

7

MOVEMENT

7.1 Active Transport Network

The proposed Active Transport Strategy provides an interconnected pedestrian-oriented network to maximise the site accessibility in addition to the road network and the Local Centre.

The proposed network along the riparian corridors and open spaces connects the site to its natural features whilst preserving the environmental character of the riparian corridors.

The proposed network and active transport response achieves greater permeability for pedestrians and cyclists traversing the site and along the landscape corridors. The Master Plan considers existing permeability opportunities under the proposed Master Plan layout and also future permeability opportunities as the Aerotropolis evolves in future development stages.

Additional Control

1. The Active Transport corridors within the riparian corridors are to be delivered in accordance with the alignments shown in Active Transport Network Map in Figure 39. This corridor is to be delivered as a shared path for pedestrians and cyclists.
2. The Active Transport corridor within the central riparian corridor is to pass through the ERR via an underpass to ensure continuity.
3. The Active Transport corridors along primary arterial roads (ERR and BMLR) are to be delivered in accordance with the alignments shown in the Active Transport Network Map in Figure 39. This corridor is to be delivered as a shared path for pedestrians and cyclists.
4. Pedestrian crossing is to be delivered at the key intersections as shown in the Active Transport Network Map in Figure 39.

Additional Control (cont.)

1. The current layout does not allow road permeability within the blocks for safety and security reasons. However, in the future there could be opportunities to create mid-block road connections if there is a demand for commercial buildings instead of warehouses. These mid-block connections will allow additional permeability through the site. Refer to indicative future legacy road connections within the Active Transport Network Map in Figure 39. The provision for mid-block connections must not impact warehouse operations and access arrangements within the site.

Legend

- Site Boundary
- Active Transport Network - Shared Path (On Road)
- Active Transport Network - Shared Path (Off Road)
- Active Transport Network - Foot Path (On Road)
- Active Transport Network - Foot Path (Off Road)
- Active Transport Network - Cycleway (On Road)
- ERR Bridge
- Future ERR Underpass
- Planned Signalised Intersection
- Potential Opportunities for Future Connections(Indicative Only)
- Open Space / Riparian Corridor / Basins

Note: In Figure 39, on road is defined as cycle paths situated within the road reserve, and off road is defined as cycle paths outside of the road rerseve.

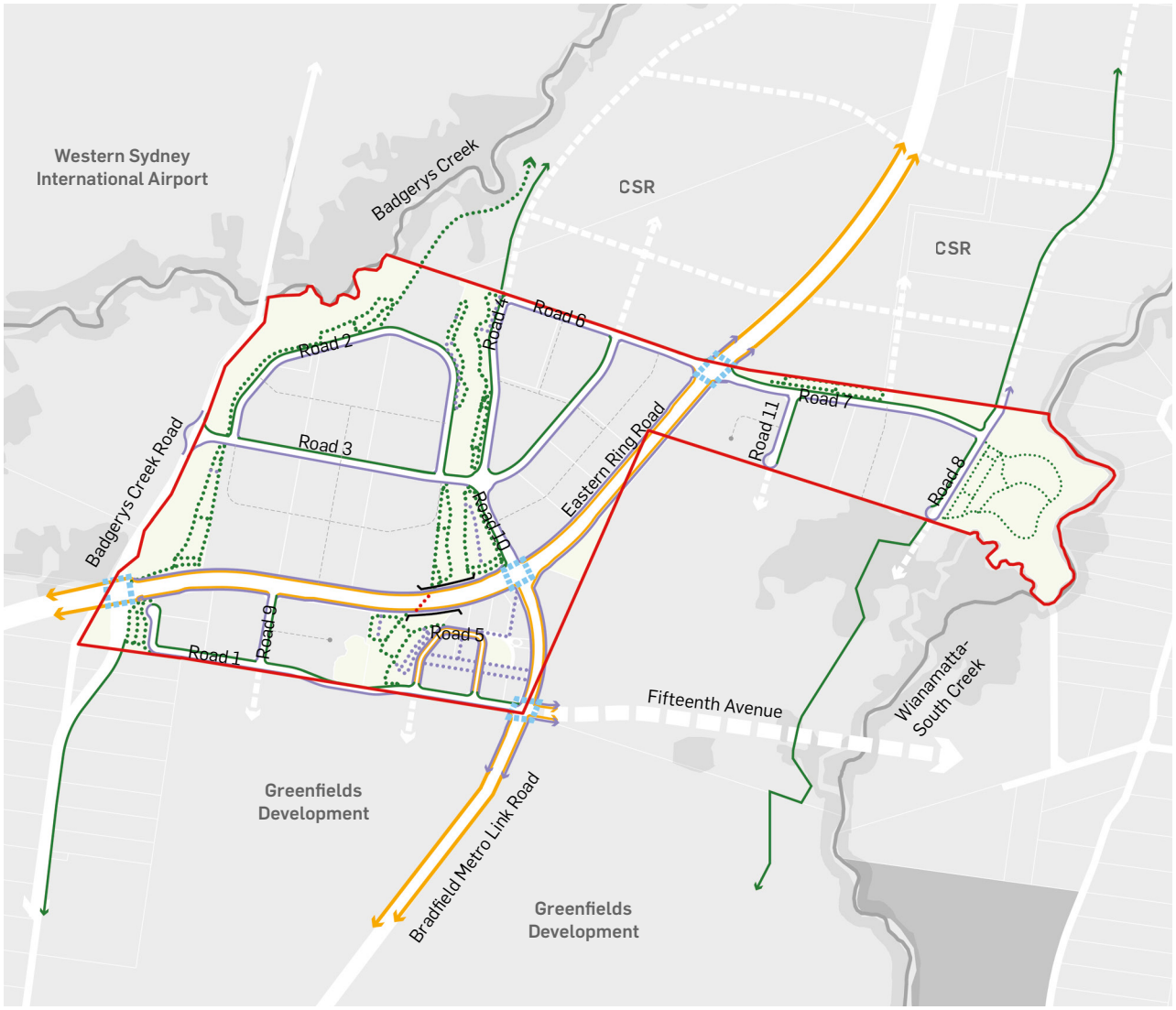


Figure 39 Active Transport Network Map
Source: Urbis

7.2 Public Transport Network

The proposed public transport network along the ERR, Fifteenth Avenue and BMLR enhances the site connectivity to its surroundings. It enhances the pedestrian accessibility to within 400-800m walking catchment throughout the site.

The location and layout of bus stops at the intersection of Bradfield Metro Link Road and Fifteenth Avenue will be subject of further investigation by TfNSW to ensure passenger interchange is facilitated between multiple bus routes.

Additional Control

1. The Rapid Public Transport Corridor and Local Bus Corridor is to be delivered in the site in accordance with the Public Transport Plan in Figure 40.
2. Potential local bus stops are to be located at suitable distances to ensure evenly distributed walking catchments across the estate.

Legend

- Site Boundary
- Rapid Public Transport Corridor
- Local Bus Corridor
- Potential Local Bus Stops
- 400m/800m Radius from Potential Local Bus Stops
- Open Space / Riparian Corridor / Basins

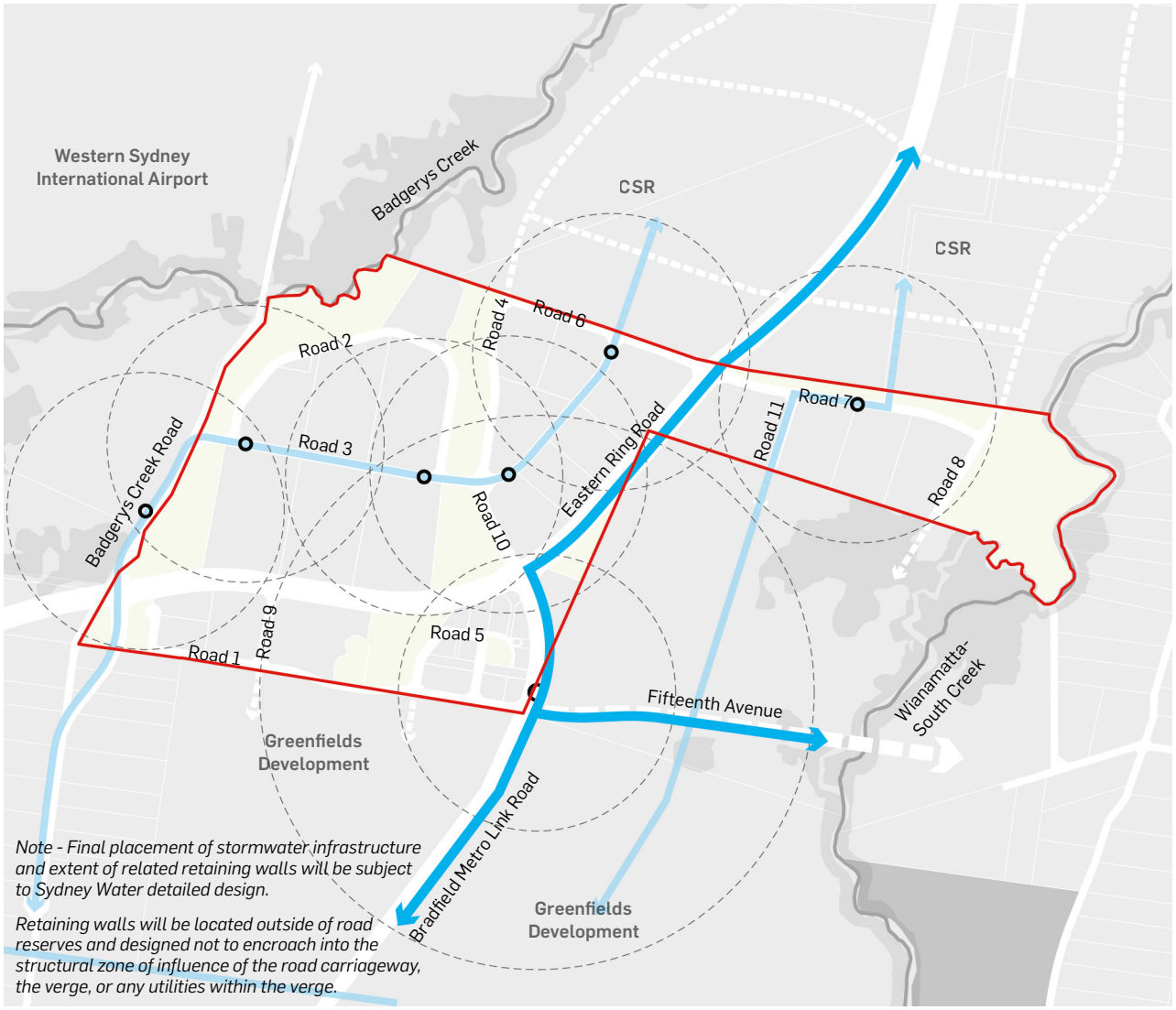


Figure 40 Public Transport Plan

Source: Urbis

7.3 Streetscape Master Plan

Figure 41 identifies the Streetscape Masterplan as identified in the Public Domain and Landscape Strategy prepared by for the Master Plan.

Additional Control

1. The streetscape design is to consider the following design objectives from the Public Domain Landscape Strategy (https://www.planningportal.nsw.gov.au/draftplans/made-and-finalised/ipg-badgerys-creek-road-master-plan):
   - Create a safe and easily accessed path network along all roads that can be utilised for all users.
   - Ensure continuous tree canopy is achieved on both sides of the street.
   - Ensure Trees are passively irrigated to promote healthy trees and optimise canopy cover.
   - Provide for deep soil planting within the streetscape
   - Provide rest stops along road corridors that provide amenity and shade for pedestrians.
   - Ensure Wildlife mitigation risks have been considered in the landscape design.
2. The streetscape design is to be delivered in accordance with the Streetscape Master Plan in Figure 41 .

Legend

- Site Boundary
- Eastern Ring Road (60m wide)
- Bradfield Metro Link Road (45m wide)
- Local Industrial Road (24m wide)
- Collector Road (25.6m wide)

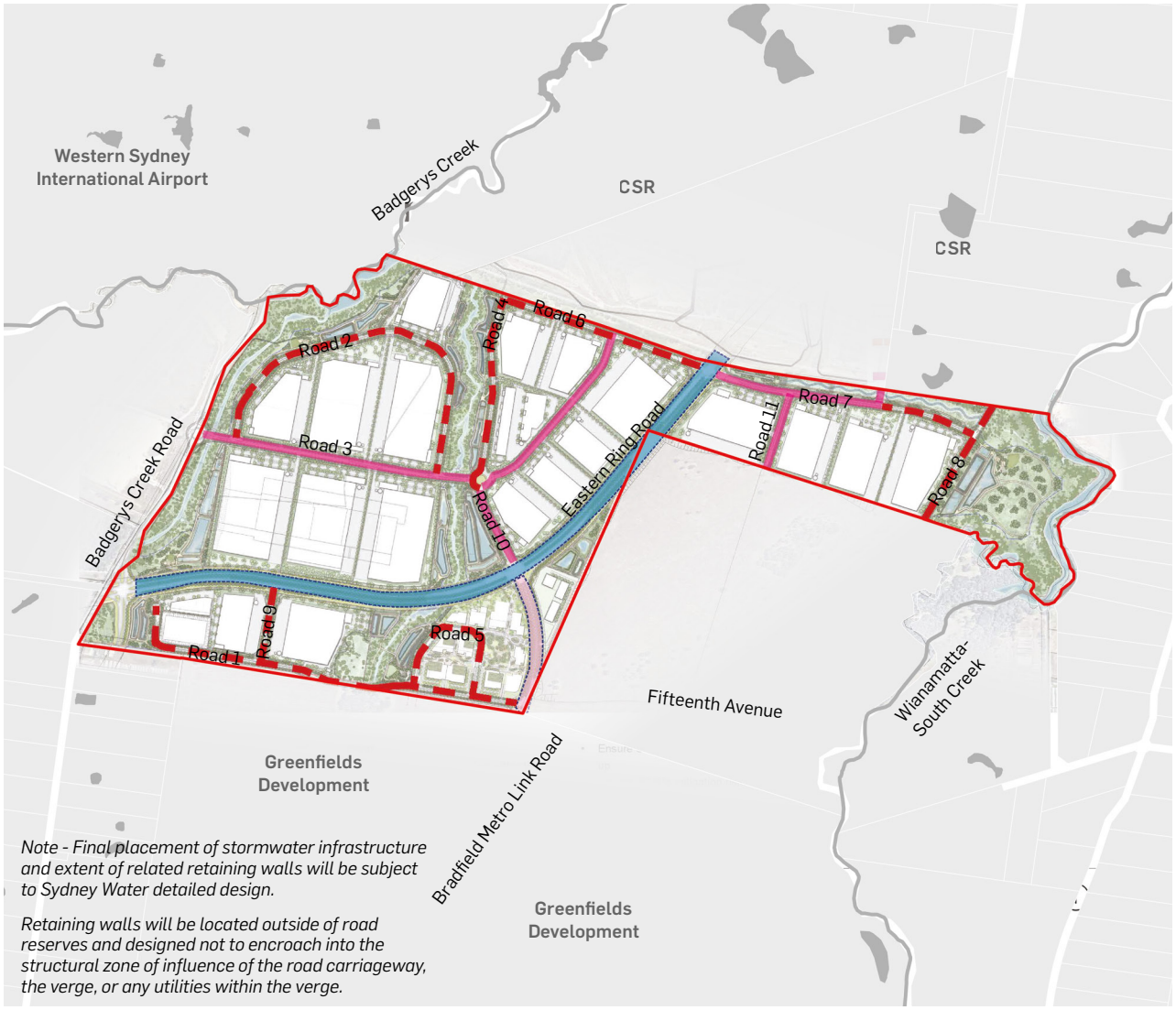


Figure 41 Streetscape Master Plan

7.4 Road Network

The proposed road network maximises the connectivity of the site internally and to its surrounding context.

The proposed realignment of the Eastern Ring Road (ERR) and Bradfield Metro Link Road (BMLR) has been coordinated with adjoining landowners to the north and south of the site. The section of the ERR which traverses through the CSR site may be subject to future design and approvals as part of a separate application.

Section 7.4.1 to Section 7.4.5 below provides typical indicative road cross-sections for the proposed road typologies within the Master Plan. These typical street cross-sections for ERR and other main roads are indicative only and subject to separate detailed design and approval in future development stages.

Additional Control

1. The roads within the Master Plan will be designed and developed to a level of service required by Liverpool Council and TfNSW (subject to the relevant authority) that ensures safety requirements and delivers a public benefit.
2. All road corridors and the applicable road typologies are to be delivered in accordance with the alignment within the Road Network Map in Figure 42.
3. Industrial Roads within the Master Plan and Local Roads within the Local Centre are to be delivered in accordance with the alignment within the Road Network Map in Figure 42.
4. Signalised and planned intersections are to be delivered in accordance with the indicative location identified in the Road Network Map in Figure 42.
5. Left-in-left-out intersections are to be delivered in accordance with the indicative location identified in the Road Network Map in Figure 42.
6. Roundabouts are to be delivered in accordance with the indicative location identified in the Road Network Map in Figure 42.
7. Left-in-left-out access for Road 09 onto the Eastern Ring Road is temporary until other road access is available. The cul-de-sac for Road 09 is to be in place when Road 09 is constructed, with line marking to indicate the temporary left-in-left-out access. When other access is available, Road 09 temporary left-in-left-out will be closed and operate as the cul-de-sac.
8. Lots with multiple road frontages must consider access for pedestrians to these roads to achieve greater permeability and shorter active transport trips. TfNSW must be consulted during site design phases with regards to pedestrian site access points. The consultation must occur prior to any issuance of an Aerotropolis certificate. A record of consultation must be provided to the Planning Secretary (or their delegate) as part of any application for the certificate.

Legend

- Site Boundary
- Primary Arterial Road - ERR
  ERR is a primary arterial road with rapid bus services and a road width of 60m.
- Primary Arterial Road - BMLR and Fifteenth Avenue
  BMLR will provide connections from the site to the south including the Bradfield Centre with rapid bus services.
  Fifteenth Avenue will provide connections from the site to Liverpool in the east. The western part will be a strategic transit corridor and will not be available for the general traffic.
- Sub-arterial Road
  Badgerys Creek Road connects the site to the Western Sydney International Airport (WSI).
- Collector Road
  Collector roads facilitate connections from the site to the arterial road, catering the local bus services.
- Riparian Collector Road
  Riparian Collector Road connects the eastern portion of the site to ERR along the riparian corridor.
- Local Centre Road
  Local Road with a width of 25m within Local Centre
- Industrial Road
  Industrial Road with a width of 24m within the site for all movements.
- Planned Signalised Intersection
- Left in-Left out Intersection (closed to ERR in the long-term)
- Roundabout
- Pedestrian Access
- Open Space / Riparian Corridor / Basins

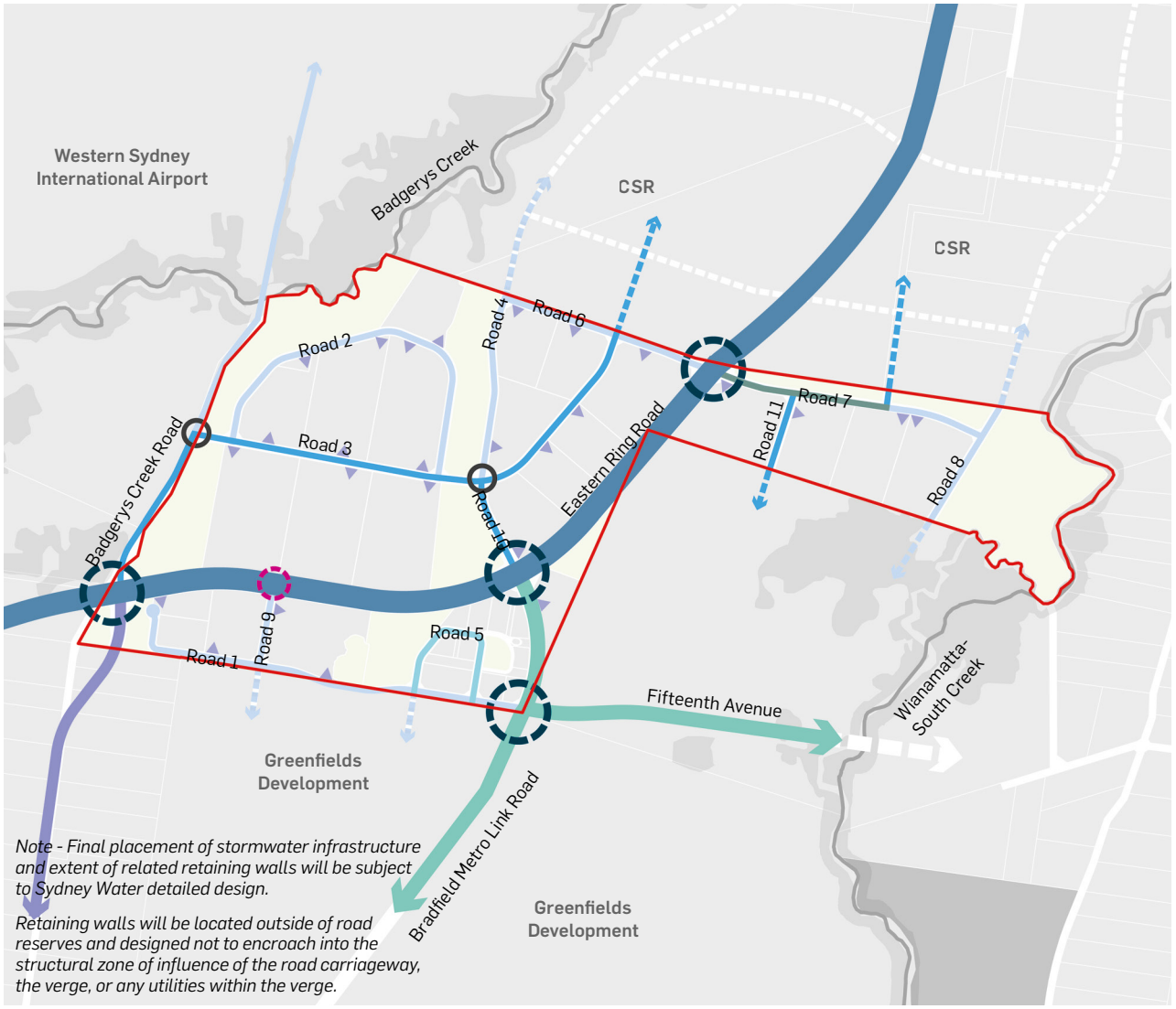


Figure 42 Road Network Plan
Source: Urbis

7.4.1 Typical Street Section

Eastern Ring Road

Road design for the Eastern Ring Road (ERR) identified within the Badgerys Creek Road Master Plan is to be consistent with the typical section shown in Figure 43 below.

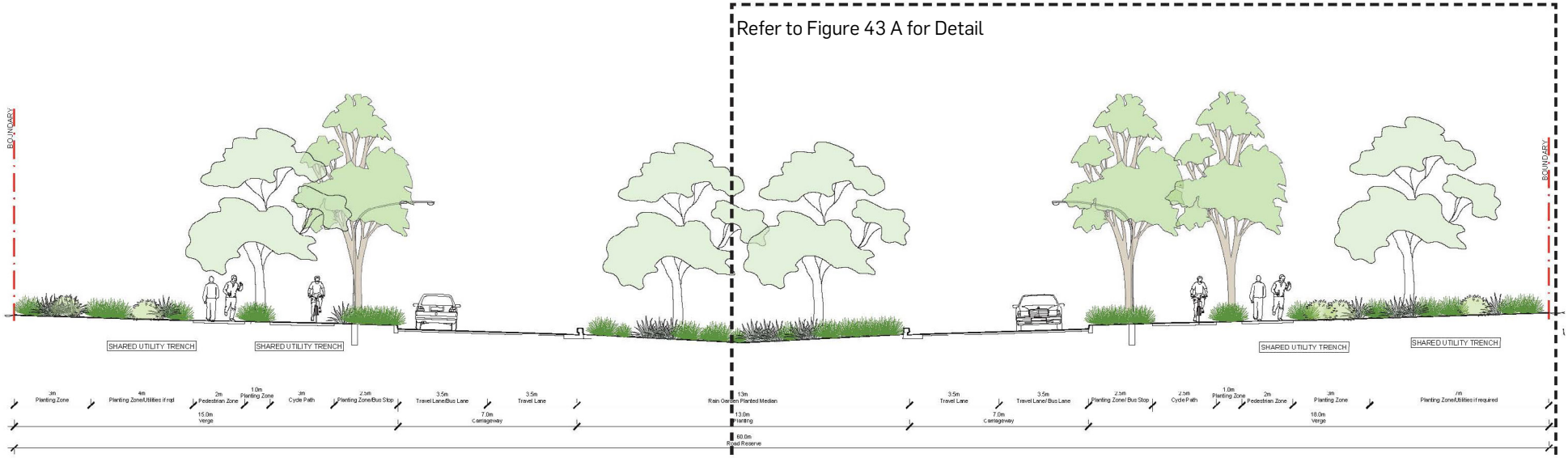


Figure 43 Typical Street Section - ERR

Source: Site Image

Indicative Only - Subject to Detailed Design by TfNSW

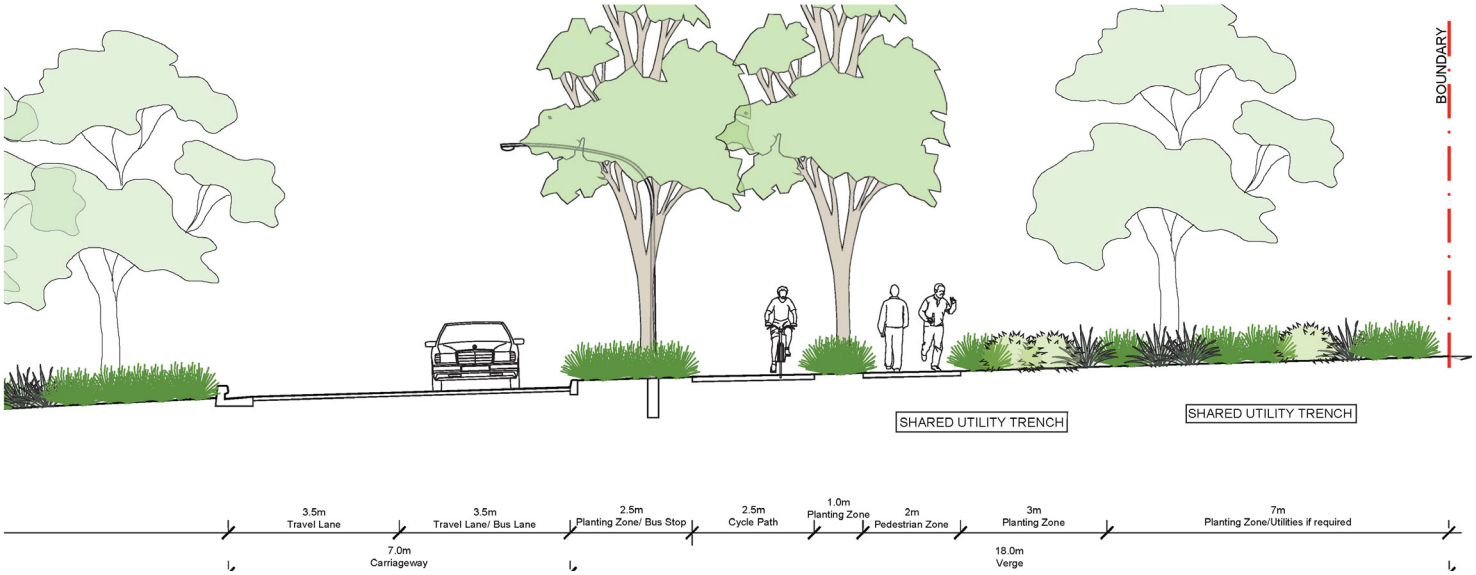


Figure 43 A Typical Street Section (Detail) - ERR

Source: Site Image

Indicative Only - Subject to Detailed Design by TfNSW

7.4.2 Bradfield Metro Link Road

Road design for the Bradfield Metro Link Road identified within the Badgerys Creek Road Master Plan are to be consistent with the typical arrangements shown in Figure 44 below.

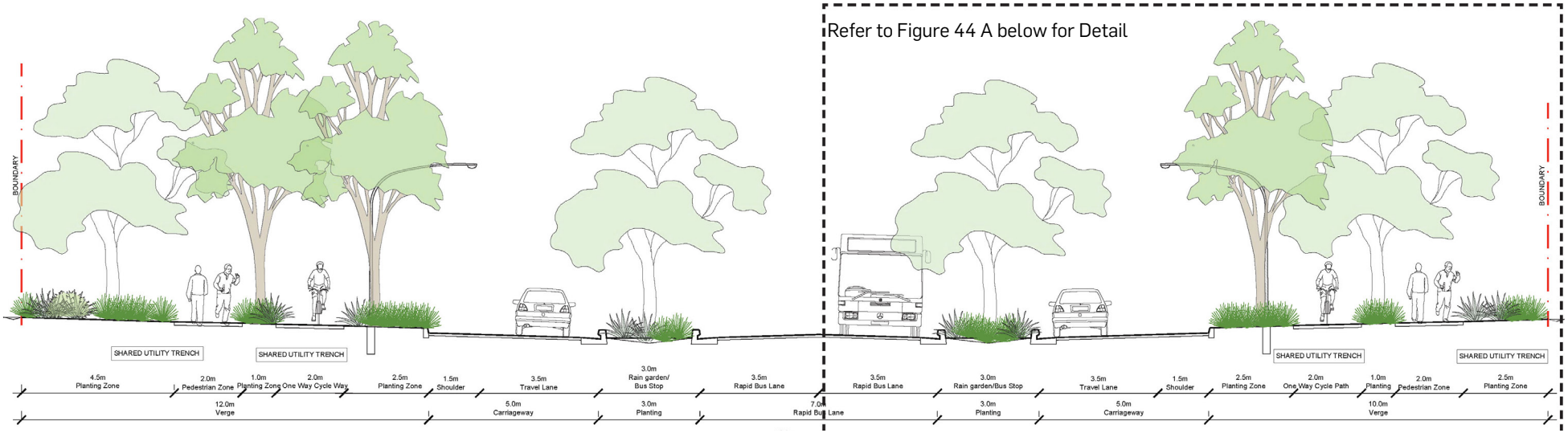


Figure 44 Typical Street Section - BMLR

Source: Site Image

Indicative Only - Subject to Detailed Design by TfNSW

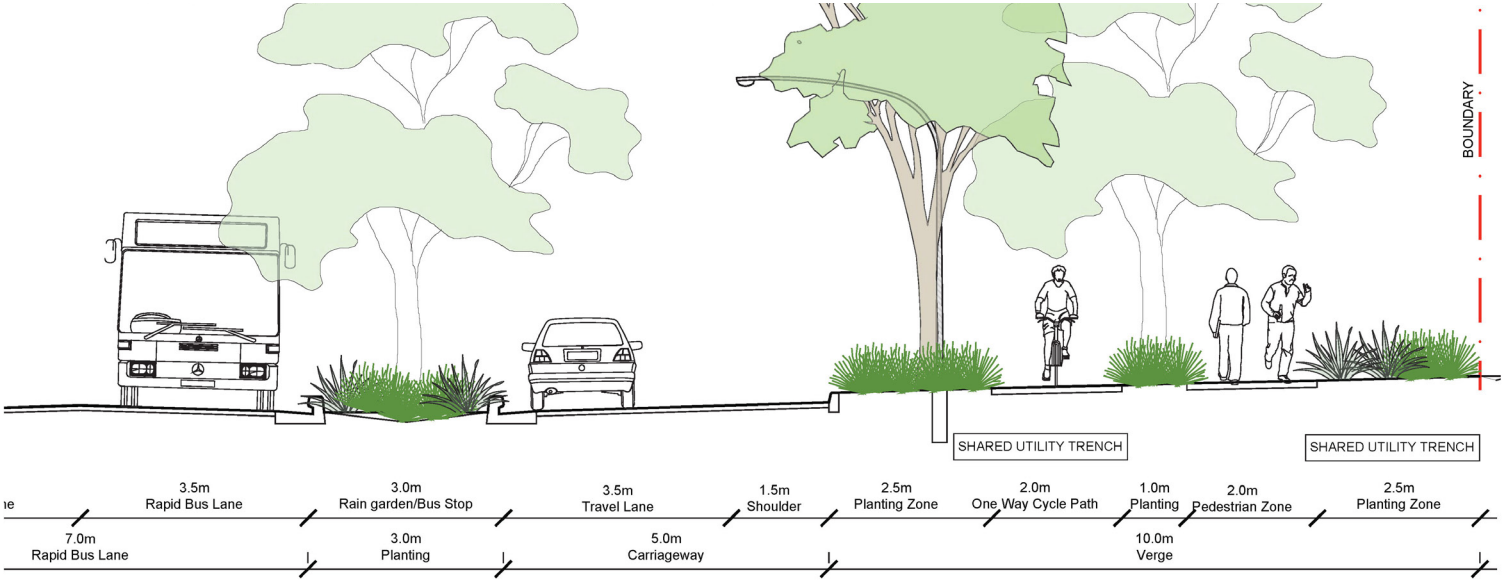


Figure 44 A Typical Street Section (Detail) - BMLR

Source: Site Image

Indicative Only - Subject to Detailed Design by TfNSW

7.4.3 Collector Road

Road design for the Collector Roads identified within the Badgerys Creek Road Master Plan are to be consistent with the typical arrangements shown in Figure 45 below.

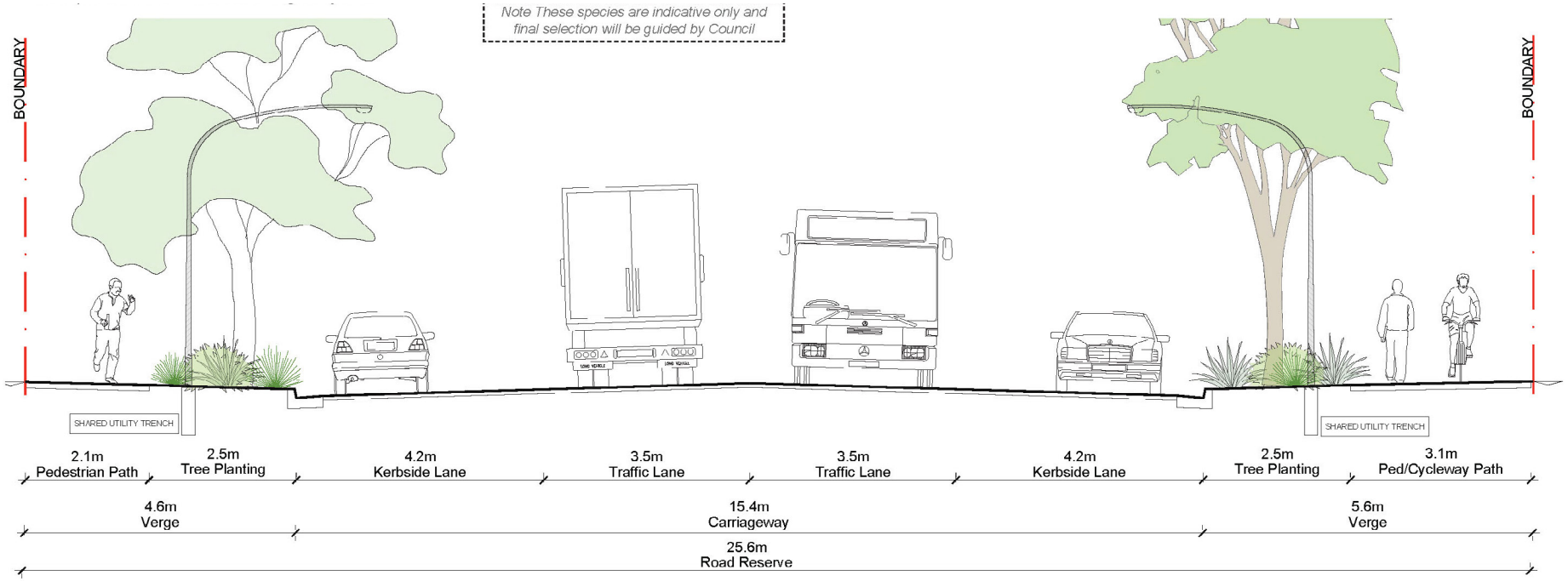


Figure 45 Typical Street Section - Collector Road

Source: Site Image

Indicative Only - Subject to Detailed Design by Council

7.4.4 Typical Street Section - Local Industrial Road

Road design for the Local Industrial Roads identified within the Badgerys Creek Road Master Plan are to be consistent with the typical arrangements shown in Figure 46 below.

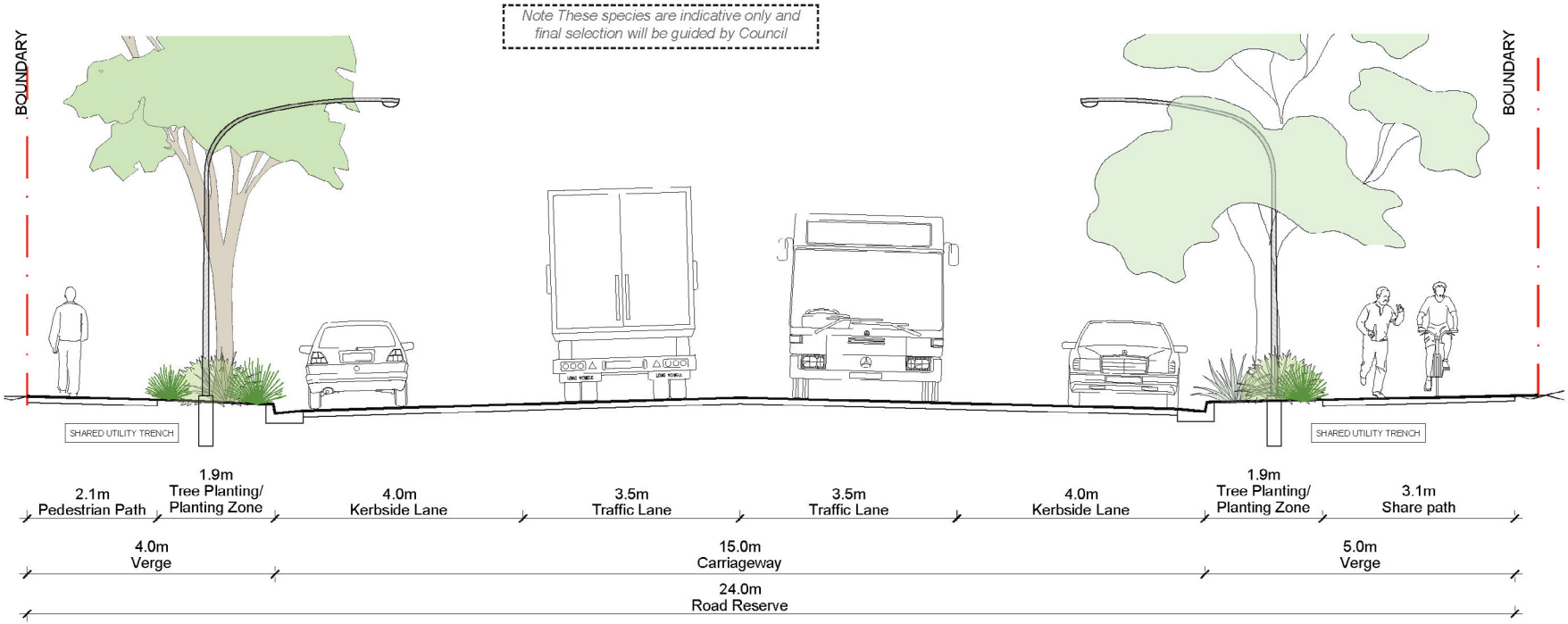


Figure 46 Typical Street Section - Local Industrial Road

Indicative Only - Subject to Detailed Design by Council

Source: Site Image

7.4.5 Typical Street Section - Local Centre Road

Road design for the Local Centre Roads identified within the Badgerys Creek Road Master Plan are to be consistent with the typical arrangements shown in Figure 47 below.

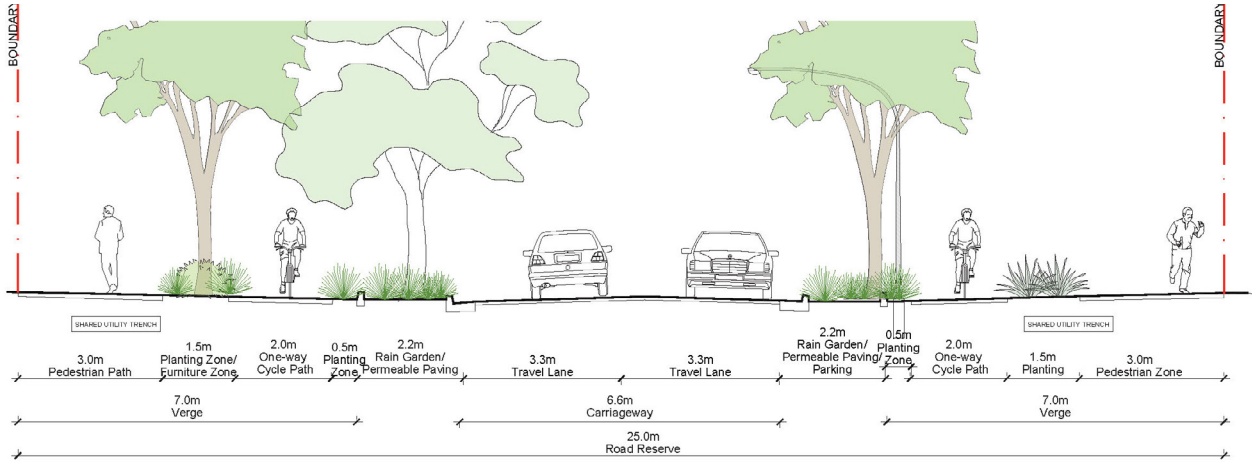


Figure 47 Typical Street Section - Local Centre Road

7.4.6 Typical Street Section - Riparian Collector Street

Indicative Only - Subject to Detailed Design by Council

Figure 48 Typical Street Section - Riparian Collector Street

Source: Site Image

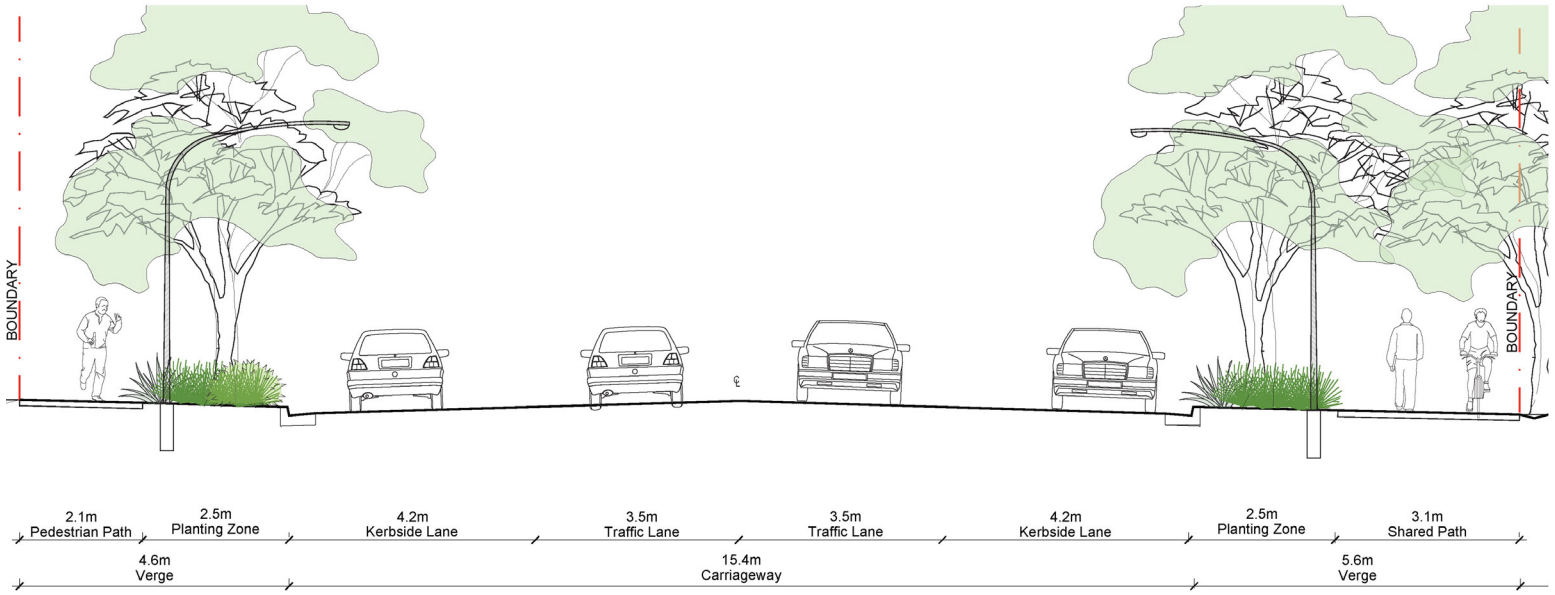


Figure 48 A Typical Street Section (Detail) - Riparian Collector Street

Indicative Only - Subject to Detailed Design by Council

Source: Site Image

7.4.7 Road Network within and adjacent to the future Local Centre

Additional Control

1. For Development Applications and Complying Development on the site identified as "Local Centre" (future Stage 7 – refer Staging Plan at Section 11), prior to seeking development approval under the development approval pathway on the site identified as "Local Centre" (future Stage 7), the proponent will first need to undertake a comparative analysis, with reduction factors and methodology to be agreed with TfNSW prior to commencing the analysis. Transport modelling will also be required to assess the site and road network impacts for selected trip generation rates.

7.4.8 Road Design for Arterial and Sub-Arterial Roads

This section sets out alternative benchmark solutions to those set out in the DCP in Section 2.6 (PO1, PO2 and PO9) for road design for arterial and sub-arterial roads.

Alternative Benchmark Solution

1. Road design for Primary Arterial Roads, Primary Arterial Roads (Rapid Bus) and Sub arterial roads within the Badgerys Creek Road Master Plan is to be designed in accordance with Figure 42 to Figure 44A in Section 7.4 of the Master Plan.
2. Temporary access to Lot 23 within the Badgerys Creek Road Master Plan can be provided off BMLR through a left-in, left-out access arrangement. Access to Lot 23 will be further investigated if access becomes available through adjoining lands. Access via adjoining allotments is to be considered in the first instance.
3. Direct vehicle access to properties from Aerial or Sub-Arterial roads is not permitted, except for Lot 23 where temporary access will be required until alternative access becomes available through adjoining lands. Development of Lot 23 shall consider options for current and future access from adjoining lands and any temporary access granted shall be removed when other access becomes available. Approval for the temporary access must be obtained from the relevant roads authority.
4. Heavy vehicle access and staff and visitor parking access can be provided through the same driveway for Lot 2 and Lot 14 within the Master Plan (refer to Figure 33), only.
5. Swept turning paths are to be provided for HRV and single articulated vehicles (20m), except for the Local Centre which will be designed for the largest design vehicle.

7.4.9 Development for Enterprise and Industry

This section sets out alternative benchmark solutions to those set out in the DCP in Section 3.2(PO2 and PO3) for development for enterprise and industry.

Additional Control

1. Where loading areas within the Badgerys Creek Road Master Plan front a road or riparian corridor a 6m (for roads) and 5m setback (for riparian corridors) must be provided to ensure natural screening.
2. Loading and unloading areas within Lot 2 and Lot 14 of the Master Plan will have heavy vehicle and staff/ visitor parking using the same driveway, however staff/ visitor parking areas must be separated from the loading and unloading areas.

7.4.10 Non-Residential Development in Centres

This section sets out alternative benchmark solutions to those set out in the DCP in Section 4.1.1(PO1), Section 4.2.2(PO2) and Section 4.2.5(PO1) for non-residential development in centres.

Additional Control

1. Development within the local centre of the Badgerys Creek Road Master Plan is to comply with the following permissible awning projections:
   - Laneway- 2.5m from the Property boundary
   - Promenade- 3.5m from the Property Boundary
   - Easement Road- 3m from the building line
   - Bradfield Metro Link Road- 3.5m from the building line
2. Awnings and and support / structural elements must not project into the road.

Alternative Benchmark Solution

1. Podiums are setback 3m from the property boundary fronting existing and new streets, or
2. Building setbacks within the local centre are to be delivered in accordance with Figure 79 (proposed building setbacks for the local centre in the Local Centre Indicative Plan)

7.4.11 Travel Plan

This section sets out additional controls for the Master Plan in relation to traffic matters when obtaining an complying development certificate.

Additional Control

1. Prior to the issue of the first complying development certificate a Stage 1 Travel Demand Management (TDM) Strategy for industrial development (Stages 1-6) must be prepared by the proponent and endorsed in writing by TfNSW.
2. The TDM Strategy must include tailored strategies for each land use within the Master Plan site, aiming to minimise the reliance on private vehicle travel and promote sustainable transport options. Where multiple land uses are permissible within the zone, the strategies must be based on the land use(s) expected to generate the highest trip volumes.
3. Prior to the issue of the first complying development certificate for the Local Centre (Stage 7) a Stage 2 TDM Strategy for the Local Centre must be prepared by the proponent and endorsed in writing by TfNSW.
4. Each complying development application for new buildings and additions must include a Travel Plan prepared in accordance with the relevant TfNSW endorsed TDM Strategy.

7.4.12 Requirement for update to TMAP in regard to Complying Development

This section sets out additional controls for the Master Plan in relation to traffic matters prior to obtaining a complying development certificate.

Additional Control

1. For development under complying development on land at the Site which exceeds at total of 407,920m^2 GFA, or within 5 years from the date of the approval of the Master Plan, the Transport Management and Accessibility Plan (TMAP) and associated modelling is to be updated and provided to TfNSW for review and endorsement prior to additional floorspace being developed under complying development.
2. For development under complying development on land at the Site which exceeds at total of 507,000m^2 GFA:
   - A comprehensive addendum to the TMAP is to be prepared, which includes transport modelling as agreed with TfNSW in terms of model methodology. Endorsement of the updated TMAP by TfNSW is to be demonstrated prior to the application for an Complying DevelopmentAerotropolis Certificate for the development.

7.4.13 Complying Development on land in the Local Centre

This section sets out additional controls for the Master Plan in relation to complying development on land in the Local Centre.

Additional Control

1. Where development is proposed under the complying development on a site identified within the Local Centre, prior to the first complying development certificate being issued for new floorspace within a building, the applicant must first undertake traffic modelling at the rate of 10.7/100m^2 with reduction factors in accordance with TfNSW Guide to Traffic Generating Development, or as otherwise agreed with TfNSW. This information must be provided to the registered certifier.

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8 BLUE AND GREEN INFRASTRUCTURE

8.1 Blue Green Strategy

There are three open space corridors within the site which are integral to the design of the Master Plan. The Wianamatta-South Creek and Badgerys Creek corridors are major landscape elements which define the Western Parkland City, connecting the precincts within the Aerotropolis. The open space corridors reflect the riparian areas within the site and celebrate the significance of these culturally significant landscape corridors.

This Master Plan incorporates a well-connected active transport network which connect all areas within the site to the open space and riparian corridors.

The Blue Green Strategy for the Master Plan, as illustrated in Figure 49, delivers a range of open space areas consisting of:

- 0.7 hectares of open space within the Local Centre.
- 44.6 hectares of area comprising riparian corridors, biodiversity basins and other open spaces along the riparian corridors.
- 9.5 hectares as passive open space along the riparian corridors including the encroachment area of the outer 50% of riparian corridors.

Table 11 details the types of green and blue infrastructure provided within the site.

Additional Control

1. The Blue Green Strategy within the Master Plan is to be delivered in accordance with Figure 49.
2. Riparian corridors within the Master Plan are to be designed and delivered to ensure the enhancement of in-stream key habitat features and connectivity between ponds to promote continuous fish passage where possible, in accordance with the Vegetation Management Plan (https://www.planningportal.nsw.gov.au/draftplans/made-and-finalised/ipg-badgerys-creek-road-master-plan).
3. Open space, including mapped HBV and areas within the riparian corridors not identified as a stormwater basin, is to be designed and delivered in line with the Staging Plan in Figure 108 and managed by IPG in accordance with the Vegetation Management Plan until dedication is made to a public authority.

Table 11 Indicative Green and Blue Infrastructure Summary

TOTAL GREEN & BLUE INFRASTRUCTURE	AREA (HA)	%
Usable Area	10.2	5.5%
Local Park	0.7	
Passive Open Space along Riparian Corridors (incl. Amenity Areas, and Pedestrian and Cycle path)	9.5	
Non Usable Area	35.46	19.3%
Vegetated area along Riparian Corridors (including HBV vegetation)	26.06	
Biodiversity Basins	9.4	
Total	**45.66**	24.8%
Site Area	**184**	

Source: Site Image

Legend

- Site Boundary
- Riparian Corridor
- Proposed Local Park
- HBV Vegetation
- Integrated Stormwater Basins
- Environmental Land in surroundings
- Major Creeklines - Badgerys Creek & Wianamatta-South Creek
- Creeklines
- Strahler Stream Order
- Central Line of riparian corridors to define the inner and outer 50% of riparian corridors

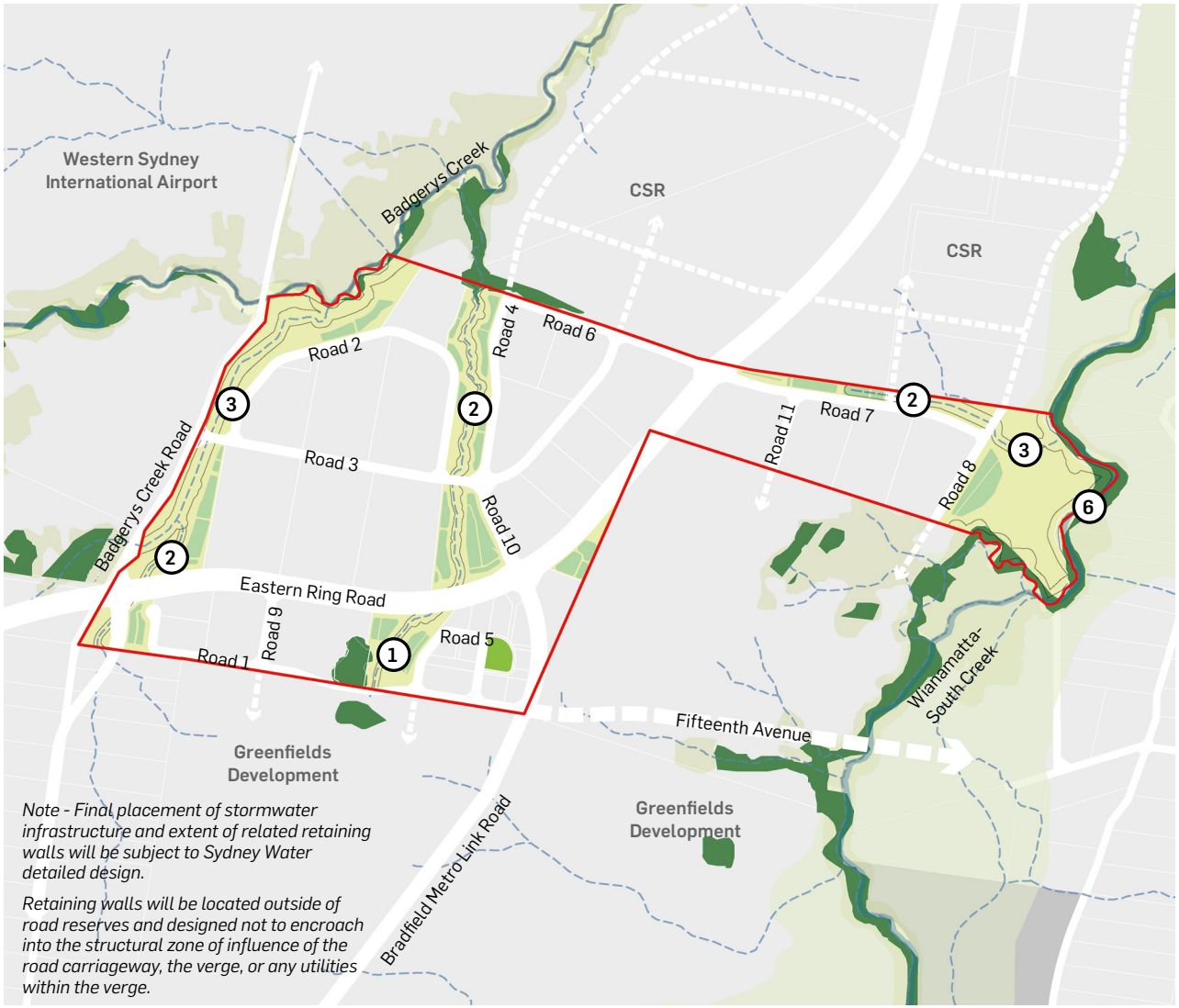


Figure 49 Blue Green Strategy

Source: Urbis

8.2 Landscape Master Plan Typologies

Figure 50 identifies the various landscape typologies across the site as outlined in the Public Domain and Landscape Strategy prepared by Site Image. This includes the following locations:

- Riparian Corridors
- Streetscape
- Local Centre
- Industrial Estate (Also known as Enterprise and Industry Locations)

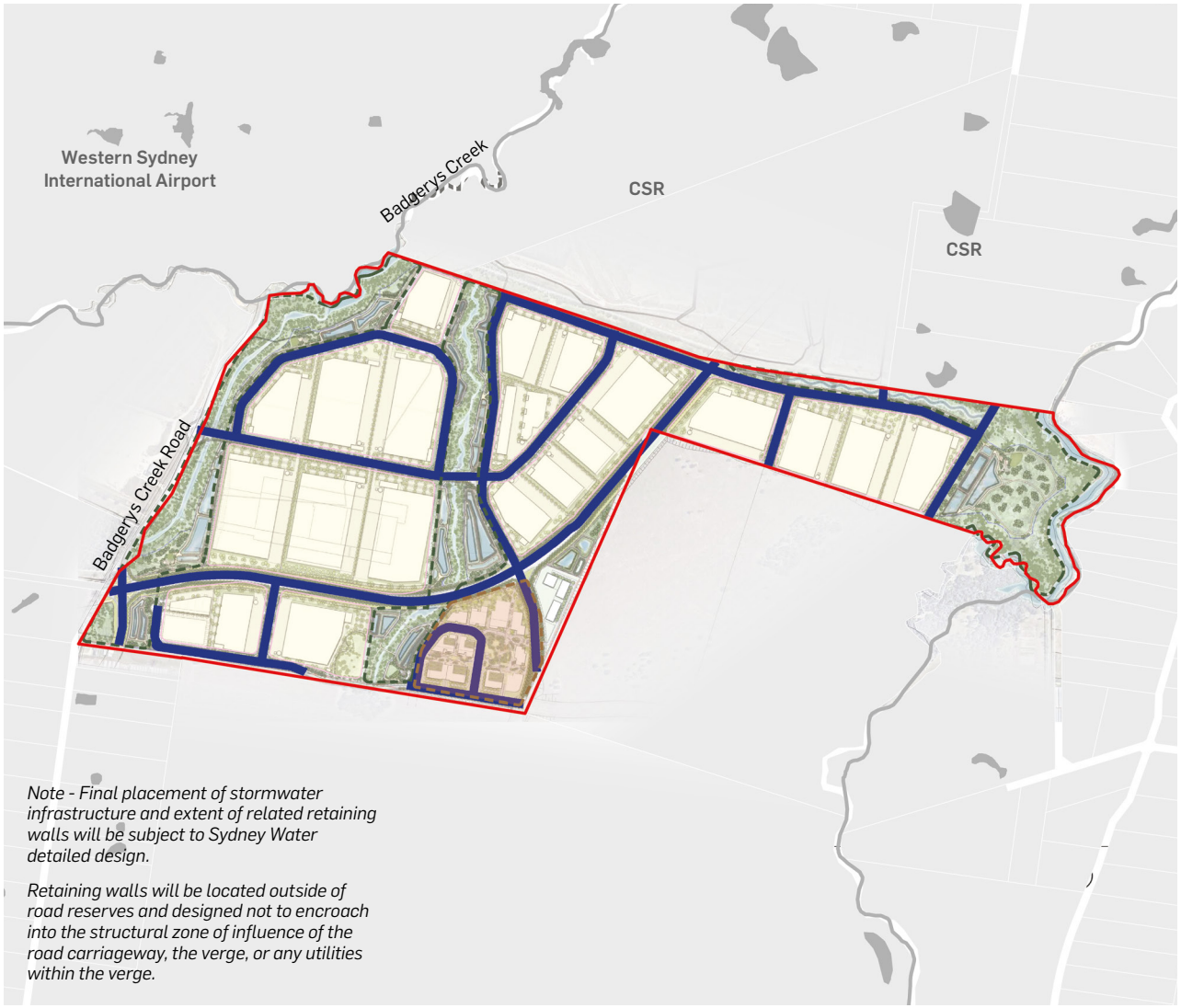


Figure 50 Landscape Masterplan Typologies

Source: Site Image

8.3 Open Space

This Master Plan is informed by a Landscape Master Plan which seeks to establish landscape principles and controls over and above the DCP provisions. Refer to Figure 51 for the Landscape Master Plan.

Objectives

The Master Plan is underpinned by the following landscape objectives:

- To respond to Country and to consider the guiding Designing with Country principles in Section 5.3.
- To deliver green and blue grids that enhance ecology, biodiversity, and canopy coverage.
- To deliver a balanced landscape approach that creates inviting spaces for people and restore natural habitats, whilst mitigating the wildlife hazards and bird-strike issues that may present a risk to the operation of the airport.
- To deliver sufficient deep soil targets within industrial lots to ensure sufficient tree canopy cover can be achieved.
- To ensure enterprise buildings are supported by sufficient on-lot landscaping to mitigate the urban heat island effect.

Figure 51 Landscape Plan

Source: Site Image

The key open spaces within the Badgerys Creek Road Master Plan comprise of the following:

Table 12 Key Open Spaces

Open Space Typology	Design Elements		
Riparian Corridors			
The Riparian Corridors play an important role in strengthening the value of the sites biodiversity and offering high quality public amenity that connects to the broader open space network in the Aerotropolis. The three corridors offer different experiences for users based on site constraints and opportunities.	 Public Amenity	 Active transport network	 Riparian activation
Local Centre			
The Local Centre provides a variety of different services that are enhanced by landscape interventions. The local centre park provides a central hub for education, such as the sharing of stories of the two creeks and the context of the broader site. A grove of existing trees within the park will be partially retained and bolstered with additional shrub and ground cover planting to help promote a bio-diverse ecosystem. Sightlines through the park will highlight views of the surrounding natural landscape	 Laneways	 Built form Landscaping	 Community Amenity

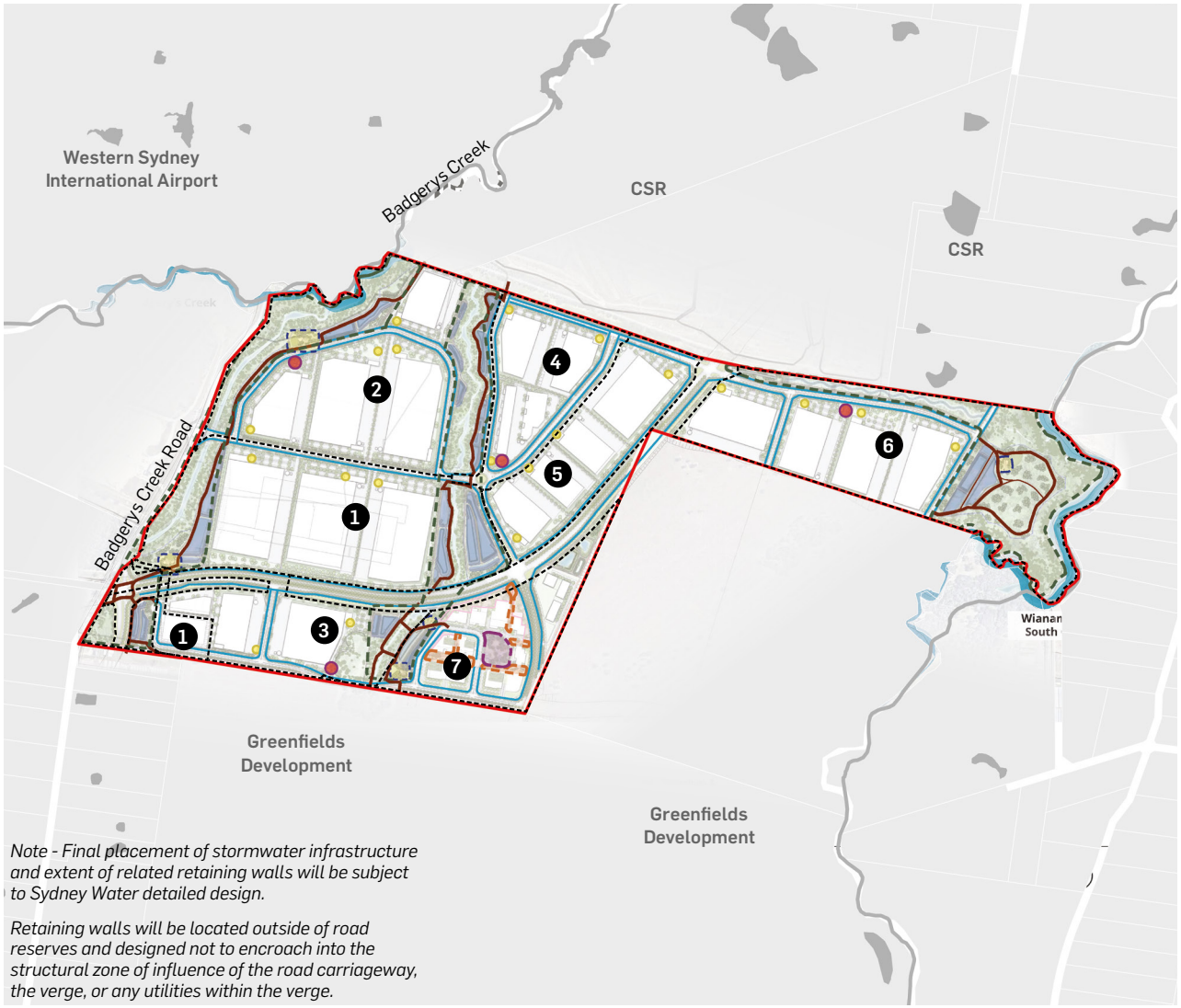
Open Space Typology	Design Elements
Streetscape	
The Streetscape along all road types is an integral component of the public domain design. Road corridors play an important role in combating the heat island effect and offer a shaded and connected pedestrian network which makes traveling through the site comfortable for users. Additionally the streetscape utilises storm water for passive irrigation of street trees to promote healthy trees, optimise canopy cover and contribute to streetscape and amenity.	 Street trees  Setback planting
Industrial Estate Landscaping	
The On Lot Landscape design will pay a critical role in providing amenity and outdoor communal areas for workers as well as offering public retail amenity in some locations. Additionally the on lot landscaping will focus on canopy coverage, softening the built form and mitigating urban heat build up.	 Community Areas  Passive recreation  Water sensitive urban design

8.3.1 Open Space Delivery Plan

Open space within the Master Plan consists of a number of defining public domain elements including the three riparian corridors, public open space areas within the local centre and also all on-lot landscaping across the estate. The delivery of open space within the Master Plan is underpinned by the Open Space Delivery Plan in Figure 52 and the controls below.

Additional Control

1. Open Space within the Master Plan is to be delivered generally in accordance with the Open Space Delivery Plan in Figure 52.
2. On-lot public amenity nodes are to be delivered generally in accordance with the Open Space Delivery Plan in Figure 52.
3. The Local Centre Park is to be delivered within the central core of the Local Centre, in accordance with the Open Space Delivery Plan in Figure 52.
4. Design elements and design functions within each of the open space areas identified within the Open Space Delivery Plan is to be delivered with consideration to the Open Space Delivery Schedule in Figure 52.



Legend

- Site Boundary
- Riparian Corridors
- Riparian Corridor Amenity Areas
- Riparian Active Transport Corridor
- Local Centre Laneways/ Promenade
- Local Centre Park
- Local Centre Setbacks
- Pedestrian and Cycleways along Road Corridors
- On Lot Communal Outdoor Areas
- On Lot Public Amenity Nodes
- # Stage Number
- Staging Boundaries

Figure 52 Open Space Delivery Plan

Source: Site Image

Open Space Typology	Design Elements	Design Function	Indicative Imagery
Riparian Corridors **43ha** **23% of Site Area**	• Vegetated Riparian Corridors offset from edge of bank (vegetated area based on stream order) • Boundary and interface treatment • Wetland Basins and Storage Ponds • Accessible open space for public use • **Note: Most of the Riparian corridor areas can be accessed by the public. Amenity areas are allocated spaces with BBQ, play elements etc**	• Restore dilapidated existing streams and re-establish riparian corridors to provide native habitat and increase biodiversity in line with parkland priority areas intent. • Utilise the corridors to enhance the sites canopy coverage . • Utilise storage ponds and wetland basins as not only WSUD elements but design features that help to reinforce the importance of the water landscape and WSUD elements.	
Riparian Corridor Amenity Areas **1.2ha** **0.6% of Riparian Corridors**	• Flexible use managed turf areas adjacent to amenity zones • BBQ and dining/ seating facilities • Viewing decks • Flexible community spaces • Outdoor Gym areas • Nature play areas	• To provide amenity for everyday site users (workers) and the wider community that is easily reached from key junctions and roads • Amenity areas that are surrounded by the natural environment to reinforce the importance of a connection to the sky and country. • Flexible Gathering spaces for the wider community to utilise for intimate gatherings or large scale events	
Active Transport Corridor **1.2ha** **0.6% of Riparian Corridors**	• 4m Wide cycleway/ Pedestrian paths through corridors • Naturalised grassland/ pastoral style planting around cycleway	• Provide active transport infrastructure for pedestrians and cyclists to easily access riparian corridors and utilise the space for active recreation and circulation through the site • Provide safe and equitable ramps and stair access with high visibility to encourage use of riparian corridors	
Local Centre Laneways/ Plaza Space **1ha** **0.5% of Site Area**	• Through Site Links/ laneways • Setback planting • Green roofs • Communal areas • Connection with Country • Plaza spaces • Alfresco dining and activated edges • Tree lined vistas	• Laneways to be Pedestrianised and prioritise place-making • Laneways to provide both active and passive amenity • Combating urban heat buildup through large areas of soft landscaping and green space • Offering outdoor amenity in an urban setting • Breaking up the scale of the built form • Encouraging walkability	

Figure 53 Open Space Delivery Schedule
Source: Site Image

8.4 Riparian Corridors

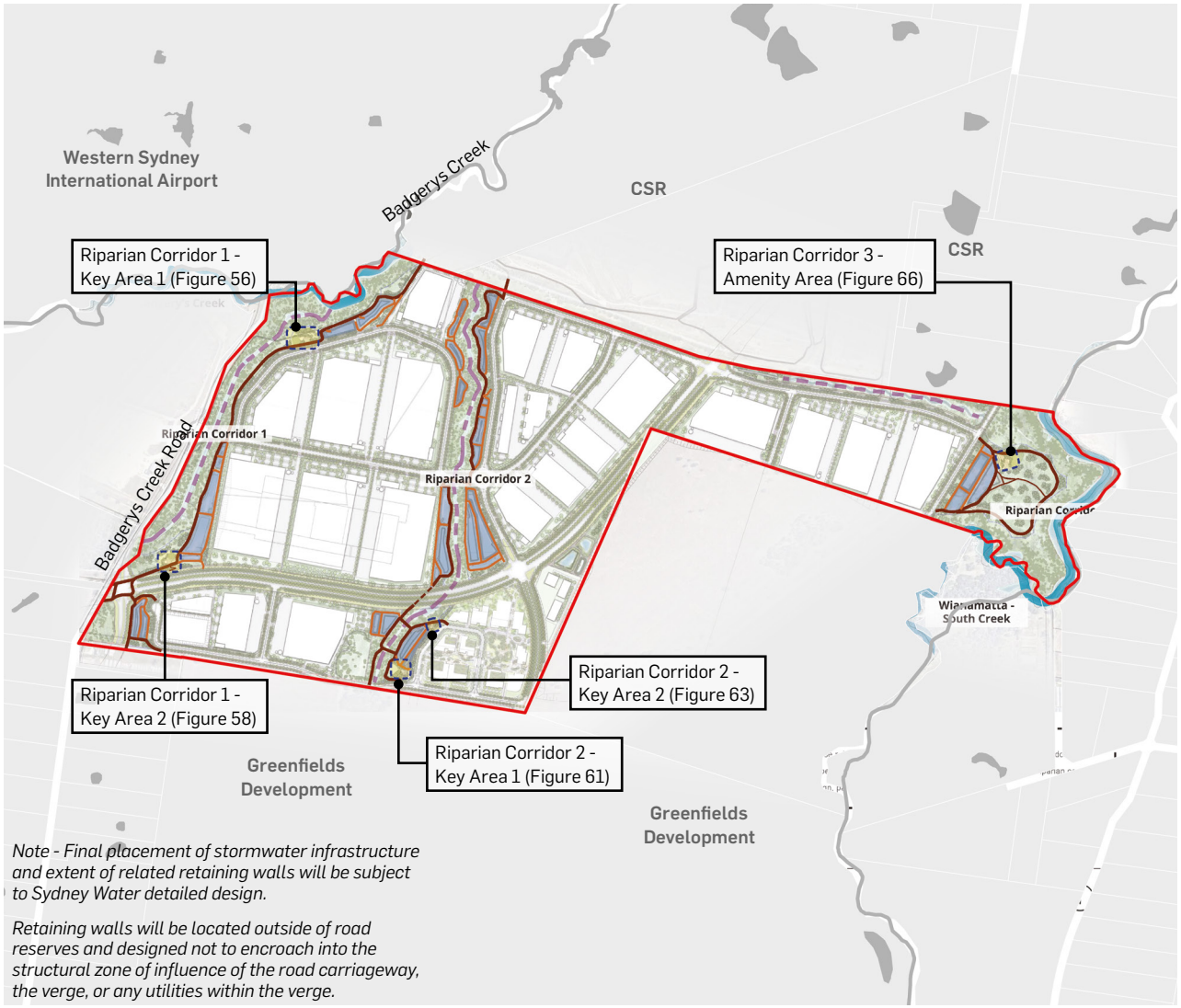
This section provides design principles and key design elements considered as part of the riparian corridor design within the Badgerys Creek Road Master Plan. Figure 54 outlines the proposed riparian corridors which define the Badgerys Creek Road Master Plan.

Objectives

- To deliver riparian corridors and all public domain areas that are publicly accessible.
- To support active transport within the riparian corridors.
- To enable the integration of stormwater infrastructure to improve water quality.

Principles

1. Riparian Corridors within the Master Plan are to be designed in accordance with the following principles:
   - Conserve and manage existing vegetation and contribute to the increase of habitat and tree canopy cover within the Aerotropolis.
   - Provide safe, accessible and inviting active transport networks to cater for local travel, ensuring movement routes link to key local destinations such as services, transport, public spaces and natural corridors.
   - Protect and enhance native vegetation communities, threatened ecological communities, significant tree habitat and canopy, while appropriately mitigating risks from natural hazards.
   - Landscaping contributes to the Parkland vision and the overall objective of Recognise Country of the Western Parkland City.
   - Incorporate WSUD features and provide for the infiltration of water, minimise run-off and assist with storm water management subject to also satisfactorily addressing salinity and contribute to the health of street trees and plantings.
   - Provide a mix of canopy trees, shrubs, and ground covers to manage effects of urban heat.
2. Riparian corridors are to be designed to support some of the following design elements:
   - Cycleways and path networks
   - Small Amenity Nodes for passive use
   - Large Amenity nodes for Active use and Community gathering
   - Open green space
   - Rehabilitation of Watercourse
   - Re-vegetated Areas
   - Water Sensitive Urban Design Elements including Basins, Pond networks
   - Nature Play.
   - For flexible use/active use i.e. sports
   - Adequate solar access for riparian corridor areas adjoining the local centre.



Legend

- Site Boundary
- 4m Wide Active Transport Corridor
- Gravel Maintenance Access paths (Publicly accessible)
- Existing 4th Order Stream
- Rehabilitated watercourse (1st, 2nd, 3rd Order Streams)
- Proposed Basin
- Open Space Key Area / Amenity node

Figure 54 Riparian Corridor Plan

Source: Site Image

8.4.1 Riparian Corridor 1 – Western Corridor

Riparian Corridor 1 is located on the Western edge of the site with Badgerys Creek Road running along the entirety of the Corridor. Two large amenity areas are located in central, easily accessible locations connected by a 4m cycleway from North to South. The rest of the corridor will be dedicated to re-vegetating the edges of the existing watercourse (as per a Vegetation Management Plan) and providing storage basins and wetland ponds to treat the storm water runoff.

Additional Control

1. Key Area 1 within Riparian Corridor 1 is to be designed in accordance with the principles and elements provided in Figure 56 and Figure 57.
2. Key Area 2 within Riparian Corridor 1 is to be designed in accordance with the principles and elements provided in Figure 58 and Figure 59.

Legend

- 01 Pedestrian Connection across Road 3
- 02 Pedestrian Connection to Eastern Ring Road
- 03 Amenity Area 1 (including Seating, BBQ, Shade cover, Open space, outdoor exercise, interaction with Wetland)
- 04 Amenity Area 2 (large covered BBQ/ dining facility, flexible space to facilitate community events/ educational activities)
- 05 Managed turf areas for flexible use/ sports
- 06 Areas revegetated to VMP by ecologiest
- 07 WSUD Basins - Refer to Civil report for further detail
- 08 Natural Watercourse/ Stream

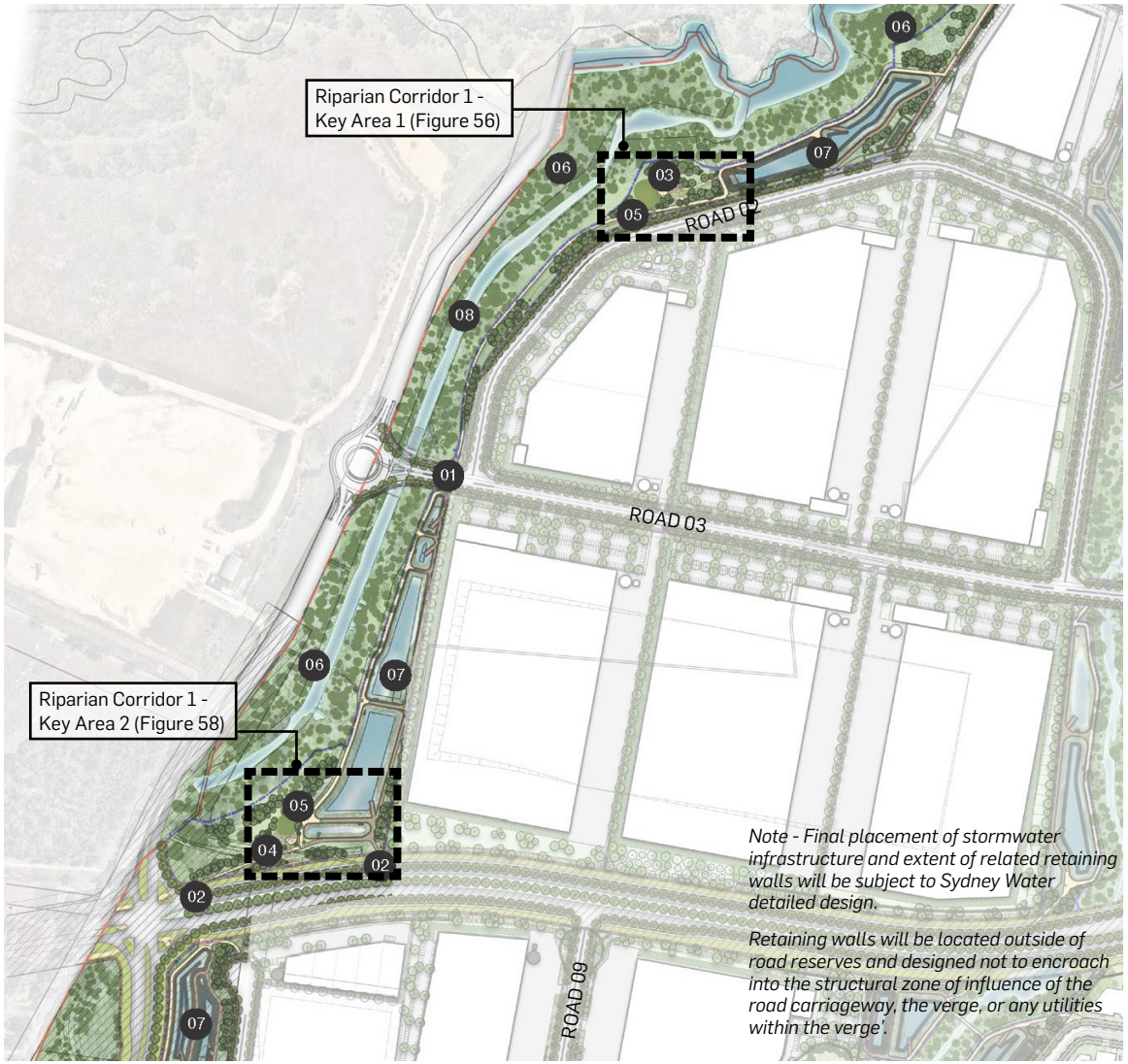


Figure 55 Riparian Corridor 1
Source: Site Image

Riparian Corridor 1 – Key Area 1

Legend

01 Natural Watercourse/Stream

02 Riparian planting to VMP. Refer to planting strategy and Documentation package for further detail

03 Considered planting approach around amenity area. Refer to planting strategy

04 4m wide cycleway/ active transport corridor

05 Large managed Turf Area Suitable for Sport or Events

06 Outdoor Gym equipment

07 BBQ/Dining zone

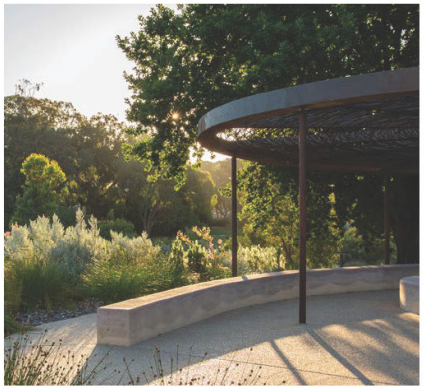
08 Large flexible use area for community use/ events

09 Viewing deck overlooking wetland basin

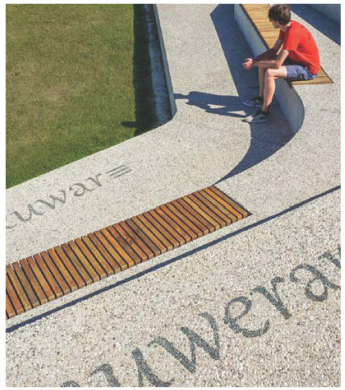
10 Wetland Basin with WSUD planting. Refer to Civil drawings for WSUD details

11 Safe access to amenity area from Road 2

Figure 56 Riparian Corridor 1 - Key Area 1



Natural and local material selection



Integration of language and way-

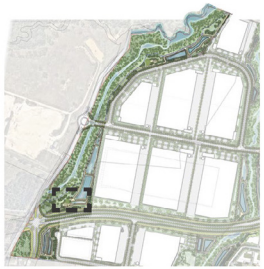
BBQ and seating amenity

Outdoor gym equipment

Viewing deck overlooking wetland basin

Figure 57 Riparian Corridor 1 - Design Elements
Source: Site Image

Riparian Corridor 1 – Key Area 2



Legend

01 Natural Watercourse/Stream

02 Riparian planting to VMP. Refer to planting strategy and Documentation package for further detail

03 Ramp and stair access to corridor from Eastern Ring Road

04 4m wide cycleway/ active transport corridor

05 Large managed Turf Area Suitable for Sport or Events

06 Informal path/ maintenance access around basins. An opportunity for people to interact with water

07 BBQ/ Dining zone

08 Large flexible use area for community use/ events

09 Viewing deck overlooking storage pond

10 Wetland Basin with WSUD planting. Refer to planting strategy

11 1:4 Batter to Eastern Ring Road. Refer to planting strategy

Figure 58 Riparian Corridor 1 - Key Area 2

Large open lawns for gathering/ active

Integration of language and way-

BBQ and seating amenity

Stair access to Eastern Ring

Viewing deck overlooking storage pond

Figure 59 Riparian Corridor 1 - Design Elements *Source: Site Image*

8.4.2 Riparian Corridor 2 – Central Corridor

Design Elements

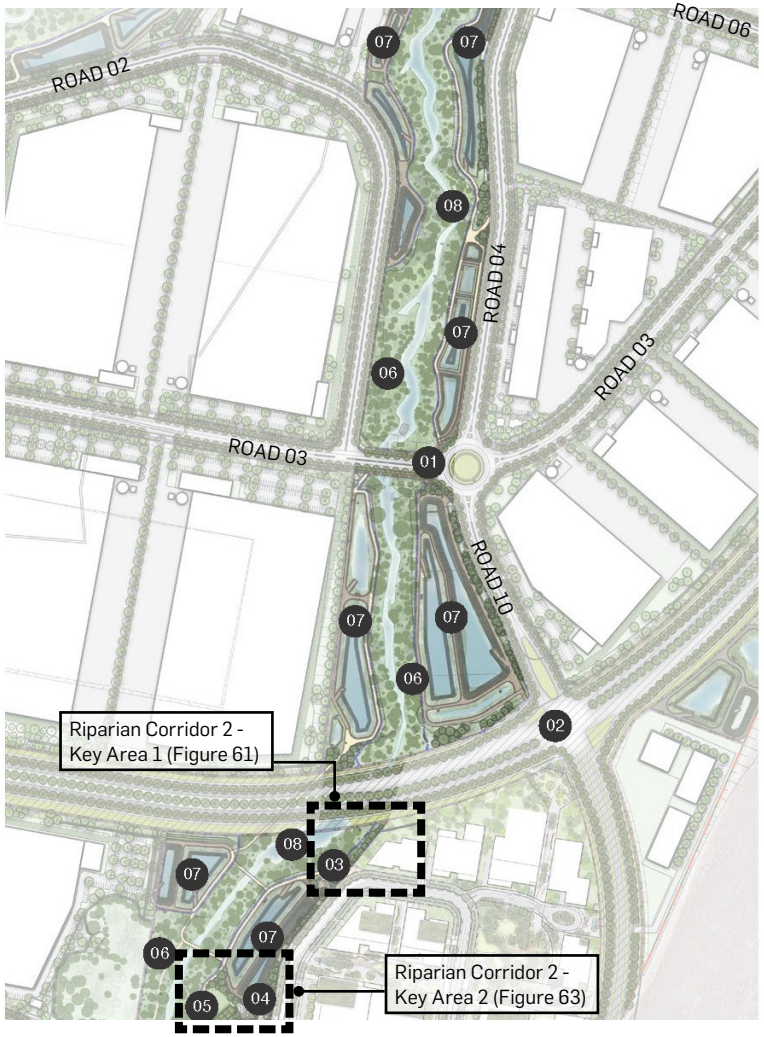
Riparian Corridor 2 runs along the central spine of the site and provides large areas of amenity and shareway for site users. Similarly to Riparian Corridor 1, the amenity areas are consolidated to key junction points that are easily accessible and sit, where possible, outside the inner 50% of the riparian corridors. These zones will offer varied program including BBQ and outdoor dining facilities, open managed lawn areas for flexible use, multi-use sports courts, a children's playground and viewing decks that interact with wetland ponds and the watercourse. The rest of the corridor will be dedicated to re-vegetating the edges of the existing watercourse and providing storage basins and wetland ponds to treat the storm water runoff.

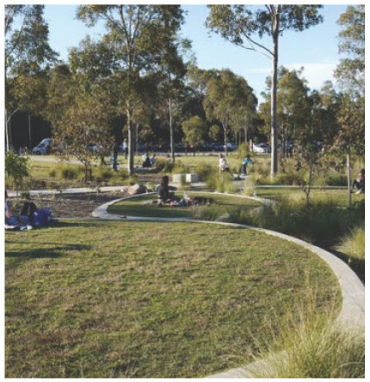
Additional Control

1. Key Area 1 within Riparian Corridor 2 is to be designed in accordance with the principles and elements provided in Figure 61 and Figure 62.
2. Key Area 2 within Riparian Corridor 2 is to be designed in accordance with the principles and elements provided in Figure 63 and Figure 64.

Legend

01	Pedestrian Connection across Road 3
02	Pedestrian Connection to Eastern Ring Road
03	Small Amenity Node (turf space, gym amenity node, gathering)
04	Large Amenity Node (large covered BBQ/ dining facility, flexible space to facilitate community events/ educational activities)
05	Large Turf Areas Suitable for Sports or Events
06	Riparian Corridor Planting
07	Wetland Basins and Storage Ponds
08	Pedestrian connection under Eastern Ring Road





Note - Final placement of stormwater infrastructure and extent of related retaining walls will be subject to Sydney Water detailed design.

Retaining walls will be located outside of road reserves and designed not to encroach into the structural zone of influence of the road carriageway, the verge, or any utilities within the verge.

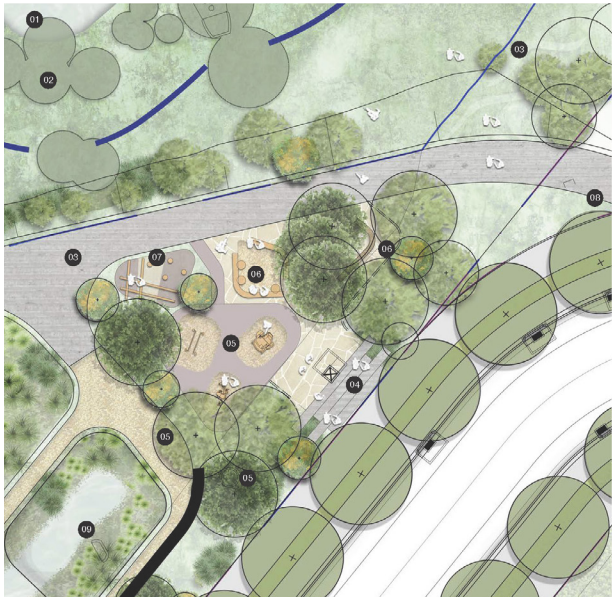
1:7,500 @ A4

0 20 40 60 80 100 120

Figure 60 Riparian Corridor 2

Source: Site Image

Riparian Corridor 2 – Key Area 1



Legend

01 Natural Watercourse/ Stream

02 Riparian planting to VMP. Refer to planting strategy and Documentation package for further detail

03 4m wide cycleway/active transport corridor & connection to Local Centre

04 Bleacher stairs to be used for access, exercise and/or seating

05 Outdoor gym / exercise area with fixed equipment

06 Passive seating zone

07 Balance and climbing exercise zone

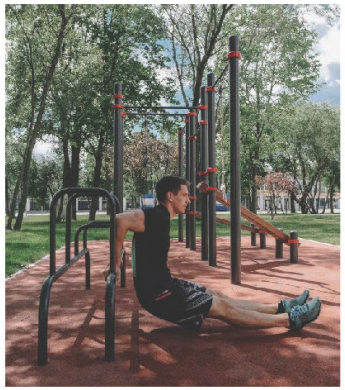
08 Visual connection and way-finding elements directing users to amenity zones

09 WSUD Basins - Refer to civil documentation

Figure 61 Riparian Corridor 2 - Key Area 1

Bleacher stairs for flexible use and informal

Integration of language and way-



Outdoor exercise node

Access to Commercial Centre

Passive seating amenity

Figure 62 Riparian Corridor 2 - Design Elements

Source: Site Image

Riparian Corridor 2 – Key Area 2

Legend

01 Natural Watercourse/Stream

02 Riparian planting to VMP. Refer to planting strategy and Documentation package for further detail

03 Access to Local Road/Local Centre

04 4m wide cycleway/active transport corridor

05 Wetland Basin/Storage Pond

06 Walkway along wetland basin

07 Large BBQ/Amenity zone

08 Large managed turf area for flexible use/active use i.e. sports

09 Children's play area including climbing equipment, water-play, nature play and interpretive play

10 Visual connection and way-finding elements directing users to amenity zones

11 Potential sports courts area

Figure 63 Riparian Corridor 2 - Key Area 2

Large open lawns for gathering/recreation

BBQ and seating amenity

Inclusion of water play areas

Integrated nature play elements

Amenities integrated with basin areas

Figure 64 Riparian Corridor 2 - Design Elements

Source: Site Image

8.4.3 Riparian Corridor 3 – Central Corridor

Design Elements

Riparian Corridor 3 sits at the north west corner of the panhandle of the site. Wianamatta South Creek serves as a culturally significant and sacred space for the local indigenous community. As such the importance of riparian restoration and the harmonious coexistence between nature and community drives the design.

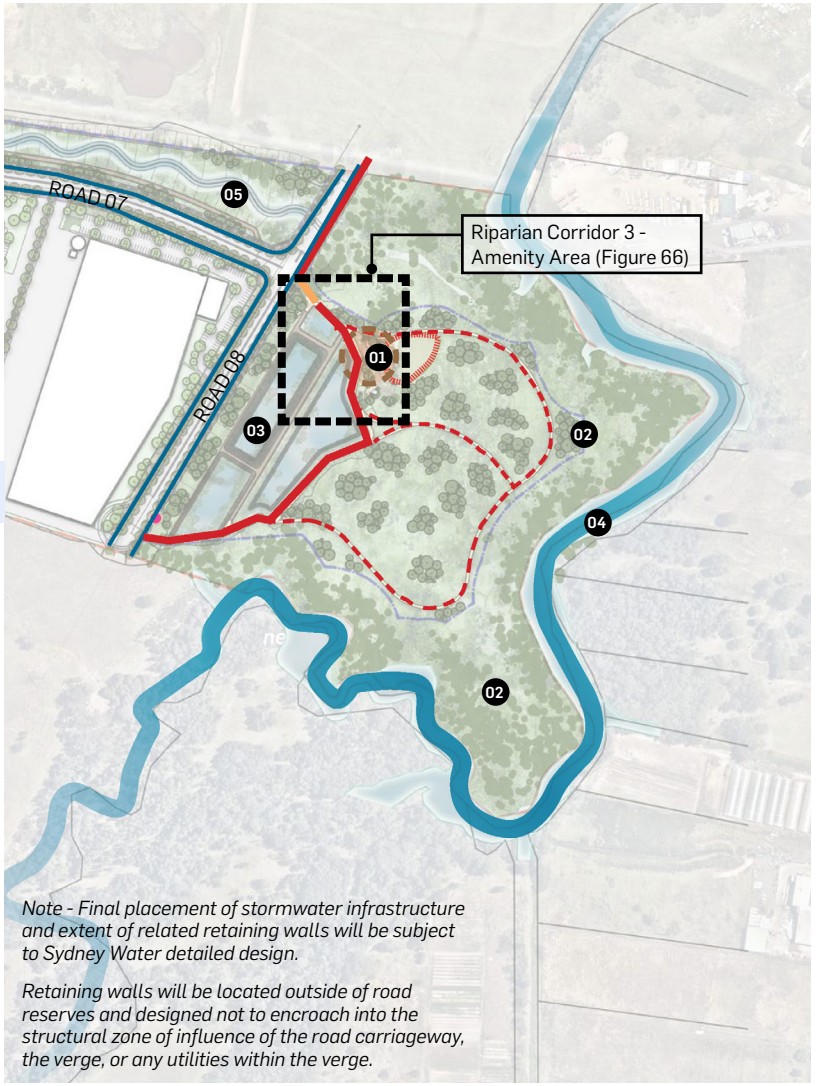
The amenity node serves as a meeting place, where site users and the broader community come together to learn, share, and celebrate. The flexible community space in the amenity area could serve as a space where workshops are held to educate people on riparian restoration techniques and the cultural importance of Wianamatta (meaning mother) creek.

Additional Control

1. The Amenity Area within Riparian Corridor 3 is to be designed in accordance with the principles and elements provided in Figure 65, Figure 66 and Figure 67.

Legend

01	Large Amenity node (large covered BBQ/ dining facility, flexible space to facilitate community events/ educational activities)
02	Re-vegetated Areas/ Riparian zones
03	Storage Ponds/Wetland Basins
04	Wianamatta South Creek
05	Riparian Street
	4m Share way through riparian corridor
	Secondary accessways through riparian corridors
	Pedestrian links along industrial roads
	Ramp Access into corridors
	Stair Access
	Open space Area/ flexible lawn (maintained)
	Amenity node



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0 20 40 60 80 100 120

Figure 65 Riparian Corridor 3

Source: Site Image

Riparian Corridor 3 – Amenity Area

Legend

01 Natural Watercourse/ Stream

02 Riparian planting to VMP. Refer to planting strategy and Documentation package for further detail

03 Access to corridor from Industrial Road

04 4m wide cycleway/ active transport corridor

05 Large managed turf area for flexible use/ active use i.e. sports

06 Viewing deck with seating and incorporated educational sig-nage that informs users about Winamatta - South Creek

07 BBQ area

08 Community garden area with a focus on educating users about cultural and endemic planting

09 Passive garden space

Figure 66 Riparian Corridor 3 - Amenity Area

Large open lawns for gathering/ active

Integration of language and way-

BBQ and seating amenity

Community gardens

Use of natural materials for informal seating

Figure 67 Riparian Corridor 3 - Design Elements *Source: Site Image*

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8.5 Stormwater and Drainage

8.5.1 Overarching Stormwater and Basin Strategy

The overarching stormwater and basin strategy within the Master Plan is to adopt landscape-led engineering design solutions. It is acknowledged that the importance of landscaping is to soften engineering features such as stormwater and drainage which are also important for the site to function efficiently and sustainability.

Proposed basins are designed along the riparian corridors and within the proposed open spaces. The encroachment to the outer 50% of the riparian corridors by the designed biodiversity basins is illustrated in Figure 68.

This section provides design principles and alternative benchmark solutions relating to stormwater and drainage within the Master Plan. It should be noted that in all other instances where no principles and alternative benchmark solutions have been provided, the DCP applies.

Principles

The design of stormwater and drainage infrastructure within the Master Plan is to be designed in accordance with the following principles:

1. Where retaining walls are visible from pedestrian paths within corridors, softer and/or natural materials are to be used such as gabion cages or sandstone walls or vegetated batters
2. All storm water basins are to be vegetated as per Sydney Water Guidelines to ensure when dry, the basins appear to bleed into surrounding open space
3. Headwalls are to be located away from communal open space areas within corridors. Headwalls and culverts will be treated with soft landscaping where possible (refer to following page).
4. Any engineering elements required to achieve storm water treatment requirements will be located away from high visibility areas i.e. pits and pipes
5. Plant selection for basins and wetlands are to be in line with DCP requirements and Sydney Water Technical Guidelines
6. Sandstone Boulders to be used for larger culverts and sedges and native grasses are to be planted in between gaps and boulders. Refer to following pages for example details.

Additional Control

1. The stormwater infrastructure and basin catchment areas within the Master Plan are to be delivered in accordance with the Basin Catchment Plan in Figure 69.

Local stormwater drainage and WSUD infrastructure includes all stormwater pits, headwalls, pipes, gutters, swales and stormwater quality improvement measures within the local road reserves and designed to convey and treat stormwater runoff from catchments up to 15ha and for storms up to and including the 10% AEP.

Regional stormwater drainage and WSUD infrastructure includes all stormwater pits, headwalls, pipes, gutters, swales, open channels, natural waterways, stormwater quality improvement, stormwater quantity reduction and stormwater re-use measures within public parks, drainage reserves, and land to be dedicated to Sydney Water servicing catchments of 15ha and greater.

Legend

- Site Boundary
- Integrated Stormwater Basins
- Open Space / Retained vegetation / Local Park
- Creeklines
- Riparian Corridors
- Stream Order
- Central Line of riparian corridors to define the inner and outer 50% of riparian corridors

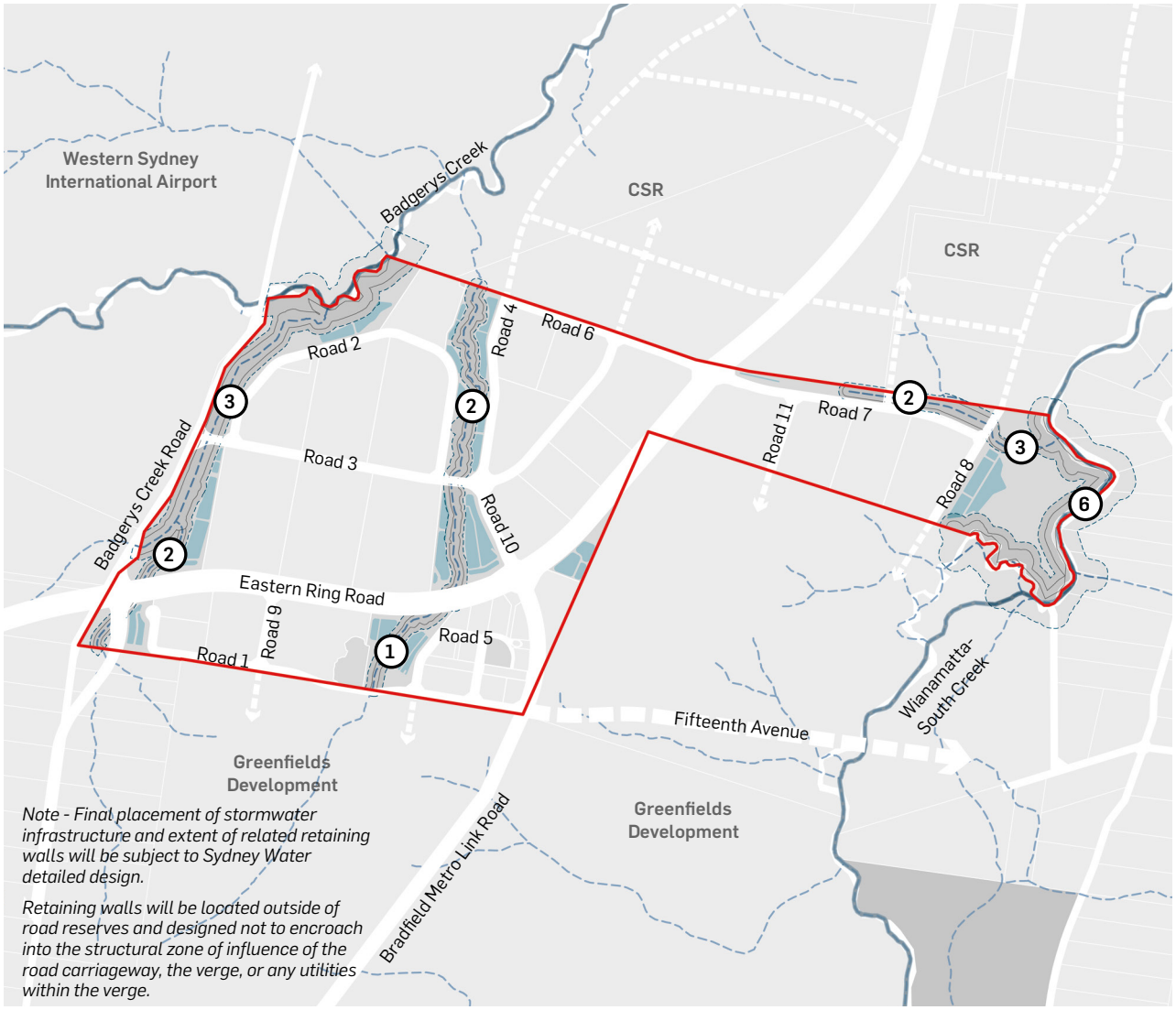
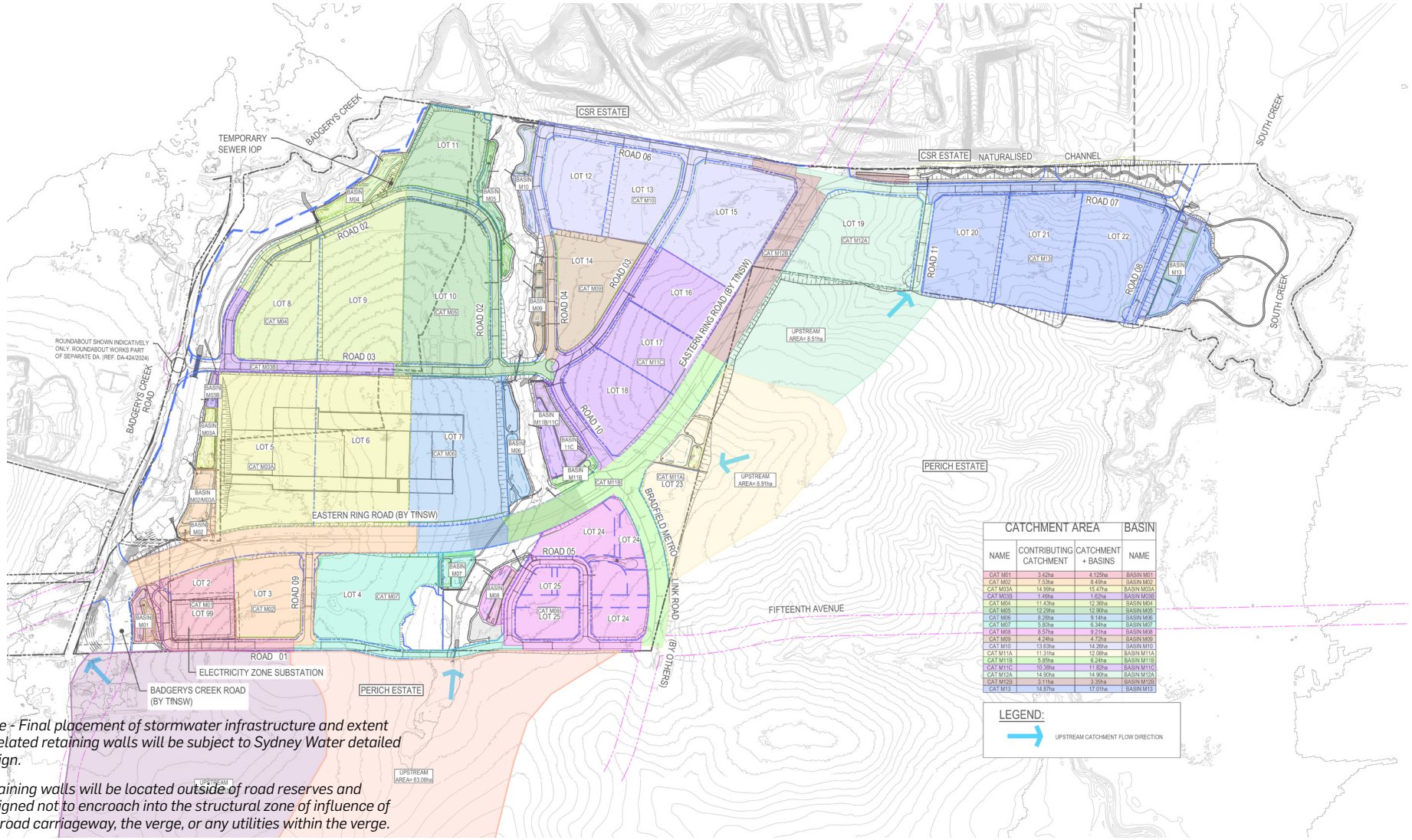


Figure 68 Stormwater and Basin Strategy

Source: Urbis



Note - Final placement of stormwater infrastructure and extent of related retaining walls will be subject to Sydney Water detailed design.

Retaining walls will be located outside of road reserves and designed not to encroach into the structural zone of influence of the road carriageway, the verge, or any utilities within the verge.

Figure 69 Basin Catchment Plan

Source: AT&L

1:13,500 @ A4

0 200 400 600 800

Figure 70 reproduces the Civil Works Site Plan prepared by AT&L which identifies the civil works proposed across the site. This plan is referred to within Section 11 of the Complying Development Code in Section 13 of this Master Plan.

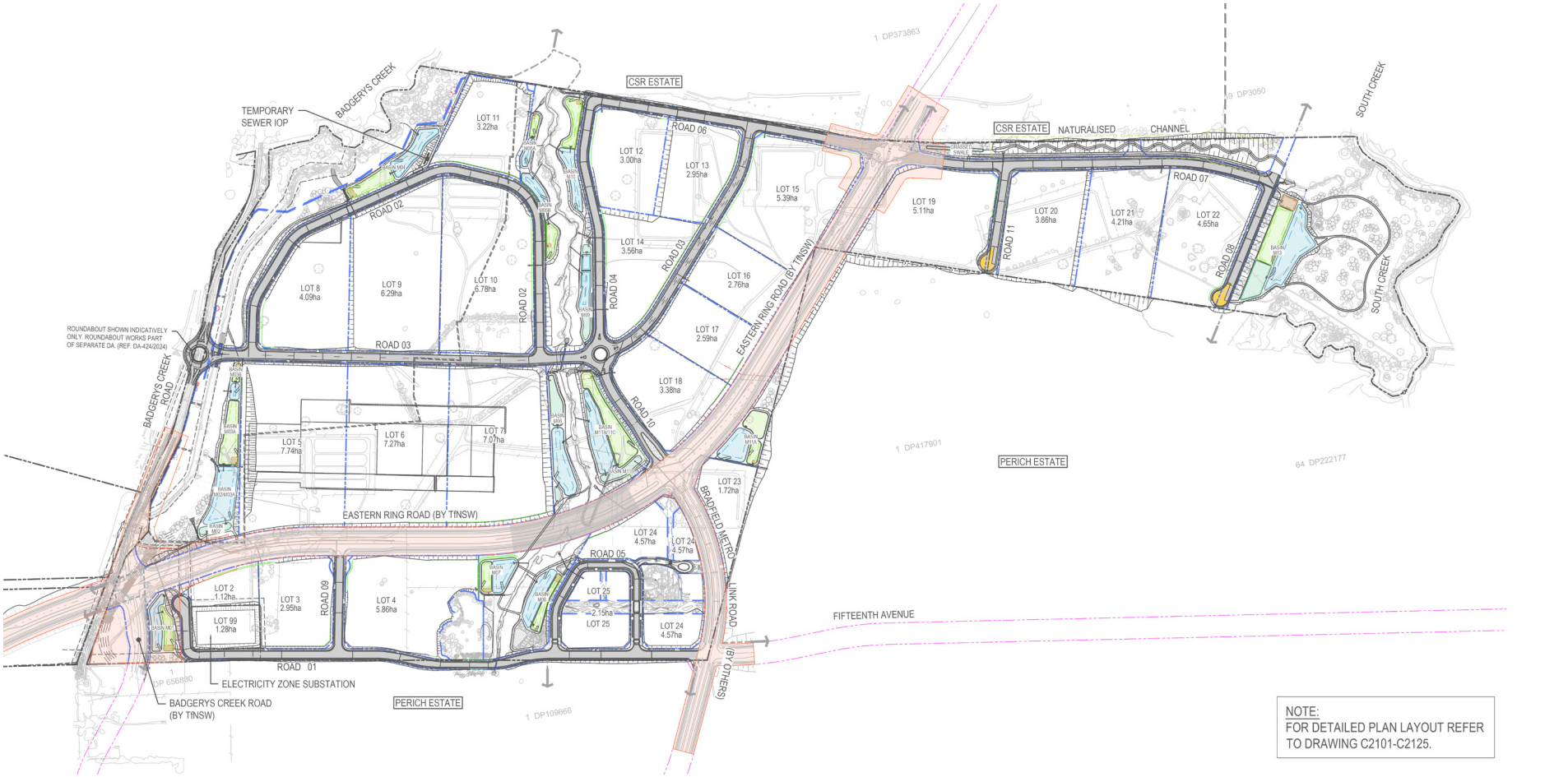


Figure 70 Civil Works Plan

8.5.2 Landscape Led Engineering Design Solutions

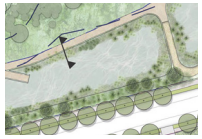
The sections below provide a series of design principles and benchmark solutions for landscape-led engineering elements such as riparian basin design and other riparian design elements including stormwater headwalls, culverts and active transport connections.

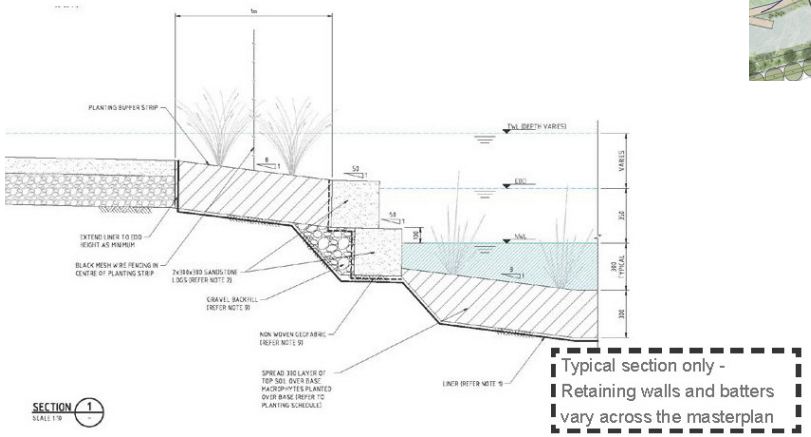
8.5.2.1 Riparian Basin Design

Stormwater basin design within the riparian corridors is to be designed in accordance with the principles and typical basin designs in Table 13 below.

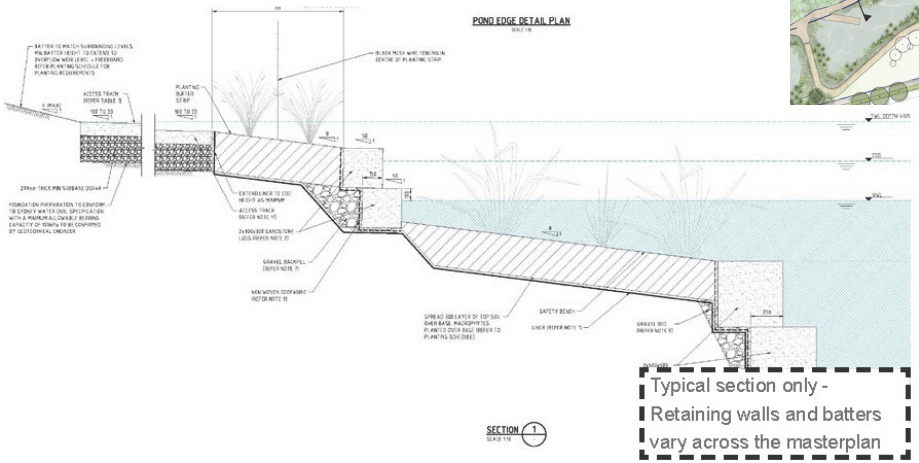
Table 13 Riparian Basin Design

	Wetland Basin Principles	Detention/Storage Pond Principles
Riparian Basin Design	• Sandstone logs to be installed to provide near vertical edge and minimise bird wading habitat pond edge • Temporary fencing to be installed within planting strip • Permanent pool depth in macrophyte zone to be less than or equal to 0.4 and an average of 0.3m deep to NWL	• Sandstone logs to be installed to provide near vertical edge and minimise bird wading habitat pond edge • Permanent fencing to be installed within planting strip. • Max. pond depth of 1.5m to NWL
Benchmark Solutions	• See Section below.	• See Section below.





Typical section only - Retaining walls and batters vary across the masterplan

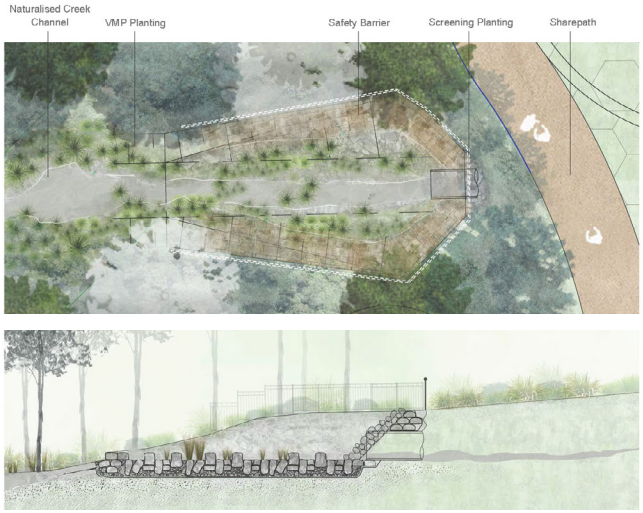
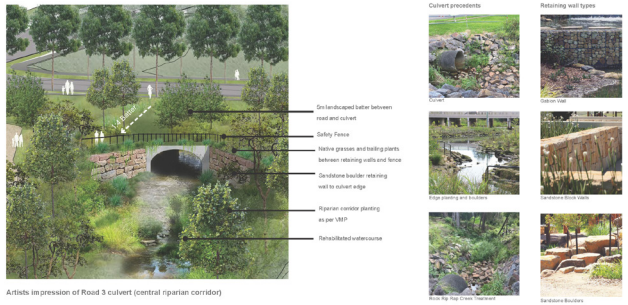


Typical section only - Retaining walls and batters vary across the masterplan

8.5.2.2 Other Riparian Design Elements

Other design elements within the riparian corridors including stormwater headwalls, stormwater culverts and active transport links are to be designed in accordance with the principles and typical basin designs in Table 13 below.

Table 14 Other Riparian Design Elements

Riparian Basin Design	Benchmark Solutions
Stormwater Headwalls	
In order to keep hard/ designed engineering elements outside the Vegetated Riparian Zone (VRZ), the wetlands, storage ponds and sediment basins sit on the edges of the riparian corridors (as visible in the Master Plan).	
Stormwater Culverts	
To ensure the existing levels within the riparian corridors are retained and batters are minimised, storm water culverts for the streams/ watercourses are proposed under Roadways. Through soft landscape and material selection, the visual impact of these culverts is reduced significantly.	
Active Transport	
There is to be an extensive active transport network that offers opportunity for resting nodes, place to engage with water elements, with generous path widths within the riparian corridors. Gravel Maintenance tracks and stormwater infrastructure are to be softened and screened as much as possible to reduce their visual impact and promote a pleasant user experience within a bushland setting.	

8.5.3 Water Sensitive Urban Design

This section sets out alternative benchmark solutions to those set out in the DCP in Section 2.3.1(PO1 and PO4) and Section 2.3.3(PO2) for water sensitive urban design.

Alternative Benchmark Solution

1. Within riparian corridor 3 of Badgerys Creek Road Master Plan, which is defined as the eastern corridor, along the Wianamatta-South Creek alignment (refer to Figure 54 Riparian Corridor of the Master Plan), Strahler stream order 2 corridors can be interrupted to support the delivery of land uses and a riparian street as anticipated under the Precinct Plan, provided stormwater modelling can achieve appropriate measures to mitigate reduced flows as a result of the breach.
2. Stormwater infrastructure can be located within land identified as non-certified land within the Master Plan if it can be demonstrated no adverse impacts to biodiversity can be achieved.
3. Active transport paths and supporting public domain amenities within the Central Riparian Corridor can encroach the inner 50% provided consistency with the riparian corridors objectives in the Vegetation Management Plan (VMP) (https://www.planningportal.nsw.gov.au/draftplans/made-and-finalised/ipg-badgerys-creek-road-master-plan) are maintained and achieved, in relation to ecological restoration and vegetation delivery. These encroachments relate to two indicative locations, identified in the VMP, which include a bridge crossings over the Central Riparian Corridor adjoining the local centre.

8.5.4 Flood Management

This section sets out alternative benchmark solutions to those set out in the DCP in Section 2.5.3(PO4) for flood management.

Alternative Benchmark Solution

1. Retain undisturbed soil networks within the eastern and western riparian corridors of the Badgerys Creek Road Master Plan, wherever vegetation is being retained.
2. Ensure instream works are delivered in accordance with the Vegetation Management Plan prepared for the Master Plan to achieve healthy soils that stabilise stream banks and mitigate soil erosion.
3. Soil preparation works is to improve the quality of substrate from its current condition, in order to support the revegetation, which will ultimately reduce run off and improve the soil's water infiltration.

8.5.5 Earthworks and Retaining Walls

This section sets out alternative benchmark solutions to those set out in the DCP in Section 2.18(PO2) for earthwork and retaining walls.

Alternative Benchmark Solution

1. For tiered retaining walls within the Master Plan, where each retaining wall tier element shall be no more than 2.0m, a 2.0m wide deep soil zone between retaining wall tiers, with suitable landscaping, is to be provided between each tier. The maximum cumulative height for tiered retaining walls must not exceed the maximum height of 6.0m, as per the DCP.
2. Retaining walls within any setback area (i.e. the edge of the road corridor boundary to the wall of the building) adjacent to the Eastern Ring Road, Badgerys Creek Road, Bradfield Metro Link Road or Fifteenth Avenue, are not to be more than 3 metres below ground level (existing) and not more than 2 metres above ground level (existing). Refer to the typical retaining wall interface along the Eastern Ring Road frontage in Figure 71 as a reference.

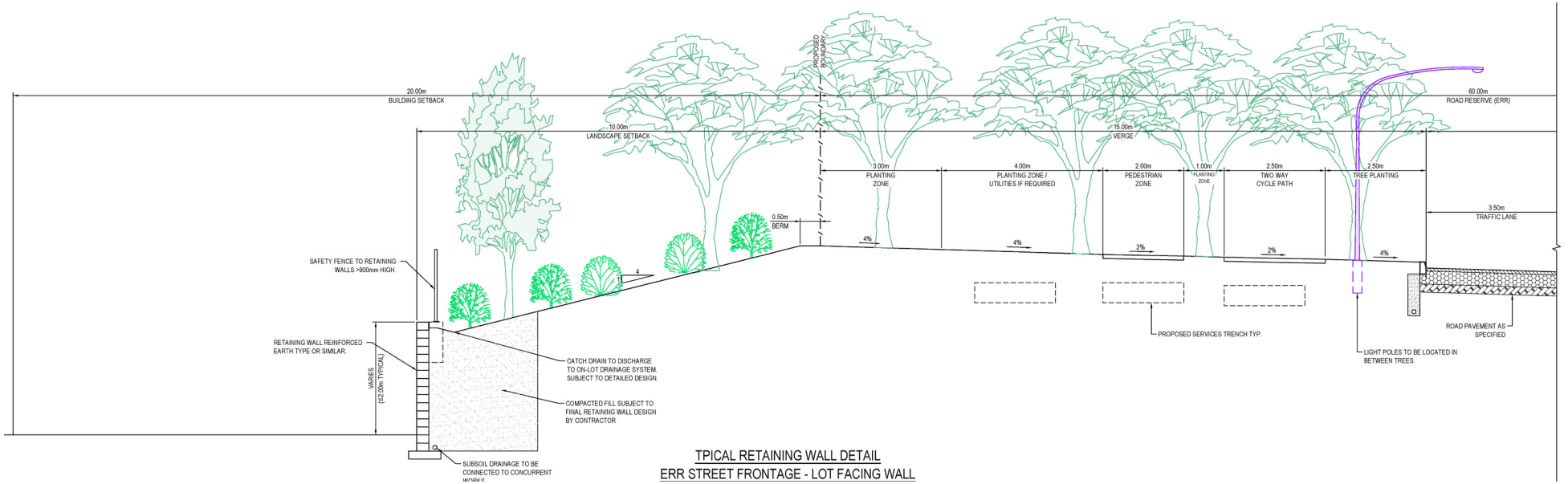


Figure 71 Typical Batter Detail - Eastern Ring Road Street Frontage

Source: AT&L

8.6 Landscaping for Enterprise and Industrial Developments

8.6.1 Industrial Estate Landscaping

Landscape design within different building typologies within the industrial estate is to be designed in accordance with the design principles provided in this section.

Principles

3. The entryway and frontage planting small and medium format lots are to provide for biodiverse understory planting.
4. Industrial estate lots to incorporate large canopy trees where possible to provide adequate shading to mitigate the urban heat island effect.
5. Industrial estate landscaping is to achieve a balanced approach between wildlife hazard and bird strike considerations with achieving a landscape-led design response.

Source: Site Image

Principles

Light Industrial Small Format Building

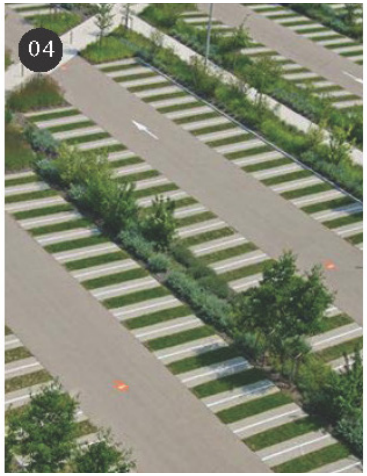
1. The small format lots may provide cafe/restaurant amenity areas for use by employees, while also offering public amenity areas for use by all. The lots are bolstered with feature planting at entryways with strong setback and frontage planting, as well as appropriate canopy coverage across the site.

Source: Site Image

Principles

Medium Industrial Format Building

1. Similar to the small format lots, the medium lots also may provide cafe/restaurant amenity areas. Nature amenity zones are also provided, being bolstered by the on-lot planting and canopy coverage. Car park areas utilise tree canopy coverage for natural shade amenity.



Source: Site Image

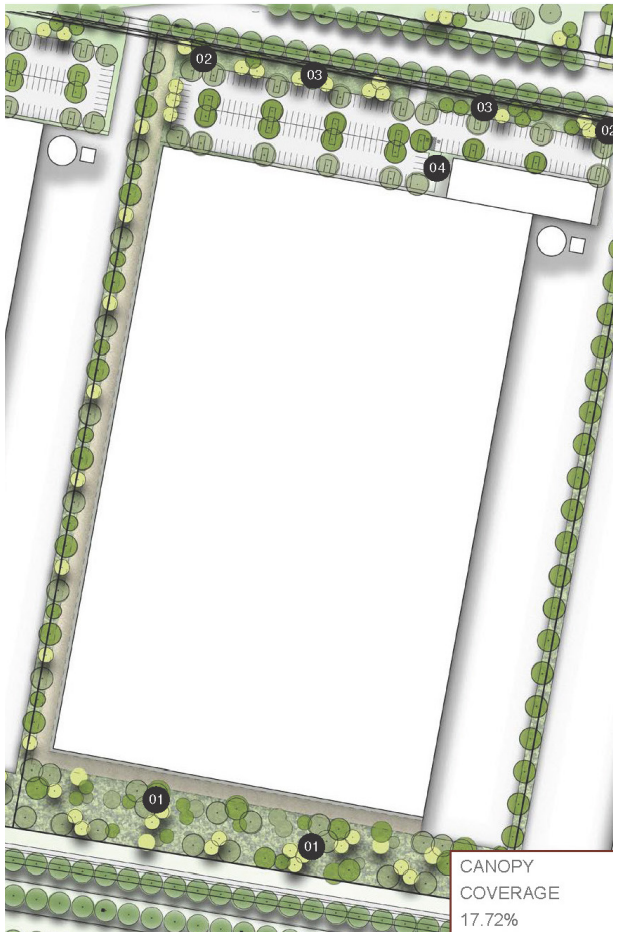
Source: Site Image

Principles

Large Format Industrial Building

1. The large lots utilise the available deep soil for areas of appropriate canopy coverage and setback planting to screen parts of the built form. Feature entry planting is utilised in conjunction with strong frontage tree planting. Similar to the previous lot sizes, large lots also feature public amenity rest stops.

Source: Site Image



Source: Site Image

8.6.2 Tree Canopy Cover and Deep Soil

The Master Plan achieves a total tree canopy coverage of 29.49% of the overall Master Plan area.

This section sets out alternative benchmark solutions for specific areas within the Master Plan to those set out in the DCP in Section 2.4.1(PO1), Section 2.4.5(PO1 and PO3) and Section 2.5.6(PO1) for canopy cover and deep soil and Section 3.3.5 for communal areas.

Alternative Benchmark Solution

1. On-lot development for enterprise and light industrial development within the Master Plan to achieve canopy cover target of at least 15% and a deep soil target of at least 15%.
2. Streetscape and road corridors to achieve a canopy cover target of at least 50%.
3. On-lot development within the local centre to achieve a canopy cover target of at least 30% and a deep soil target of at least 10%.

Additional Control

1. Street trees are to be planted at 8 -12m intervals (trunk to trunk) on all local streets.

8.6.3 Communal Area

This section sets out additional controls to those set out in the DCP in Section 3.3.5 for communal areas.

Additional Control

1. Communal areas must receive a minimum of 2 hours direct sunlight between 11am and 3pm on 21 June.
2. Where communal areas and ancillary offices within warehouse buildings are located at the south side of large industrial components, these areas and offices are to be positioned to maintain good easterly or westerly aspect for solar access.

8.6.4 Tree Planting

8.6.4.1 On Lot Planting Strategy

This section sets out additional provisions to the DCP for on-lot planting for industrial lots within the Master Plan. The purpose of these provisions is to provide further parameters around mitigating wildlife risk mitigation, whilst ensuring an appropriate amount of canopy coverage can still be delivered.

Additional Control

1. Boundary trees on-lot must be spread out with no interconnecting canopies.
2. Where on-lot planting for industrial lots is delivered, trees are to be planted in groups of no more than five (5). Although tree groups are spaced in higher densities than 5 trees every 100sqm, large gaps have been created in the Master Plan between trees to ensure it will not be a dense forest-like setback that appeals to larger birds.
3. On-lot tree planting is to contribute to the appropriate screening of developments from the public domain, whilst ensuring passive surveillance can be maintained from visible locations such as parking areas, pedestrian pathways or ancillary office interfaces.
4. Planting within the on-lot industrial development within the Master Plan is to be designed in accordance with the On-lot Planting Typologies in Figure 72 and the On-lot Planting Schedule in Figure 73 and Figure 76a.

8.6.4.2 Riparian Planting Strategy

Additional Control

1. Planting within the Riparian Corridors is to support WSUD elements, re-vegetate water courses encourage biodiversity and support amenity uses.
2. Selected species within development lots is to be selected from endemic plant community type, and basin planting is to be consistent the Regional Storm water Technical Design Guidelines (Mamre Road Precinct).
3. The Riparian Corridors will be planted as per the Vegetation Management Plan prepared by EcoLogical (https://www.planningportal.nsw.gov.au/draftplans/made-and-finalised/ipg-badgerys-creek-road-master-plan).
4. Planting within the riparian corridor of the Master Plan is to be designed in accordance with the Riparian Corridor Planting Typologies in Figure 72 and the Riparian Corridor Planting Schedule in Figure 73 and Figure 74.
5. Vegetation management zones (Figure 77) within the riparian corridors are to be delivered in accordance with Table 15 which specifies the planting densities for each management zone. Refer to Vegetation Management Plan (within the Biodiversity Management Plan) (https://www.planningportal.nsw.gov.au/draftplans/made-and-finalised/ipg-badgerys-creek-road-master-plan).

Planting Typologies

Figure 72 Riparian Corridor Planting Typologies
Source: Site Image

8.6.4.3 Species Selection

Riparian Corridor Planting Schedule

Non- Wildlife Attracting sp	Exotic	Swamp Oak Floodplain Forest	Cumberland Red Gum Riv Forest	Regional Stormwater Desi Guide	Aerotropolis DCP Species			Management Restrictio
						RIPARIAN CORRIDOR		
						Botanic Name	**Common Name**	**Mature Size (h x w) (m)**
						TREES		
■				■		*Angophora floribunda*	Rough-barked Apple	
■					■	*Acacia decurrens*	Black Wattle	10 x 4
				■	■	*Acacia implexa*	Hickory Wattle	10 x 6
■				■	■	*Acacia parramattensis*	Sydney Green Wattle	12 x 6
		■			■	*Alphitonia excelsa*	Red Ash	7 x 5
					■	*Backhousia citriodora*	Lemon Myrtle	8 x 4
			■		■	*Backhousia myrtifolia*	Grey Myrtle	6 x 3
■					■	*Brachychiton acerifolium*	Illawarra Flame Tree	30 x 12
		■			■	*Callistemon salignus*		10 x 5
■			■		■	*Casuarina cunninghamiana*	River Oak	12 x 6
■			■		■	*Casuarina glauca*	Swamp Oak	20 x 4
				■	■	*Corymbia maculata*	Spotted Gum	15 x 12
			■	■	■	*Eucalyptus amplifolia*	Cabbage Gum	28 x 8
					■	*Eucalyptus baueriana*	Blue Box	20 x 12
				■	■	*Eucalyptus crebra*	Narrow Leaf Red Ironbark	35 x 10
			■	■	■	*Eucalyptus elata*	River White Gum	40 x 8
				■	■	*Eucalyptus eugenioides*	White Stringybark	30 x 8
				■	■	*Eucalyptus fibrosa*	Red Ironbark	35 x 8
			■	■	■	*Eucalyptus moluccana*	Grey Box	30 x 8
				■	■	*Eucalyptus tereticornis*	Forest Red Gum	20 x 8
■		■			■	*Glochidion ferdinandi*	Cheese Tree	30 x 8
			■		■	*Melia azedarach*	White Cedar	12 x 8
				■	■	*Melaleuca decora*	Paperbark	10 x 5
		■			■	*Melaleuca ericifolia*	Swamp Paperbark	12 x 8
			■	■	■	*Melaleuca linarifolia*	Narrow-leaved paperbark	8 x 3
		■	■	■	■	*Melaleuca styphelioides*	Prickly Paperbark	9 x 8
■				■		*Tristaniopsis laurina*	Water Gum	5 x 8

Figure 73 Riparian Corridor Planting Schedule *Source: Site Image*

SMALL TREES		
Acacia spectabilis	Mudgee Wattle	6 x 4
Acacia binervia	Coast Wattle	2 x 3
Acacia pubescens	Downy Wattle	5 x 3
Leptospermum petersonii	Lemon Scented Tea Tree	5 x 3.4
Trema tomentosa	Peach bush	8 x 6
SHRUBS		
Acacia falcata	Sickle Wattle	
Acmena smithii	Lilly Pilly	
Atriplex nummularia	Old-man Saltbush	3 x 4
Breynia oblongifolia	Coffee Bush	3 x 1.5
Bursaria spinosa	Blackthorn	3 x 2
Correa alba	White Correa	1.5 x 1
Correa reflexa	Native Fuchsia	1.2 x 1
Daviesia ulicifolia		1.5 x 1
Dillwynia sieberi	Prickly-Parrot Pea	
Dodonea viscosa	Giant Hop Bush	2 x 1
Indigofera australis	Australian Indigo	2 x 1
Leptospermum patersonii	Lemon Scented Tea Tree	5 x 3
Ozothamnus diosmifolius	Rice Flower	
Pimelea glauca	Smooth Rice Flower	.6 x .6
Pultenaea parviflora	Sydney Bush-Pea	1.8 x 1
Westringia fruiticosa	Coastal Rosemary	2 x 1.5
GROUNDCOVERS AND GRASSES		
Carex appressa		1 x 1
Centella asiatica	Centella	
Chloris truncata	Windmill grass	0.5 x 1
Cheilanthes sieberi	Mulga Fern	
Chrysocephalum apiculatum	Yellow buttons	0.6 x 1
Cissus antarctica	Kangaroo Vine	.5 x 2
Clematis glycinoides var. Glycinoides	Guwalyari	
Commelina cyanea	Scurvyweed	Climber
Cymbopogon refractus	Barbed Wire Grass	1 x 1
Dianella caerulea	Flax Lily	.5 x .4
Dianella longifolia	Flax Lily	0.5 x 0.8
Dichelachne micrantha	Short Hair Plume Grass	0.2 x 1
Dichondra repens	Kidney Weed	0.3 x 2
Einadia hastata	Berry Saltbush	
Entolasia marginata	Panic Grass	.4 x .3
Echinopogon ovatus	Hedgehog Grass	0.2 x 0.3
Entolasia stricta	Wiry Panic	1.5 x 8

Source: Site Image

BASINS

Botanic Name	Common Name	Mature Size (h x w) (m)
GROUNDCOVERS AND GRASSES		
Baumea rubiginosa	Twig Rush	
Bolboschoenus caldwellii	Sea Club-rush	
Carex appressa		1 x 1
Dianella longifolia	Flax Lily	0.5 x 0.8
Eleocharis cylindrostachys	Common Spike-sedge	
Eleocharis sphacelata	Tall Spike-rush	
Ficinia nodosa	Knobby Club Rush	
Juncus usitatus	Common Rush	1.2 x 0.8
Lepironia articulata	Lepironia	
Lomandra filiformis	Wattle Mat Rush	1.2 x 1
Isolepis nodosa	Nobby Clubrush	1 x 0.8
Juncus usitatus	Common Rush	1.2 x 0.8
Schoenoplectus validus	River Club-rush	
Myriophyllum simulans	Amphibious Water-milfoil	
Philydrum lanuginosum	Woolly Waterlily	
Triglochin microtuberosa	Water Ribbons	

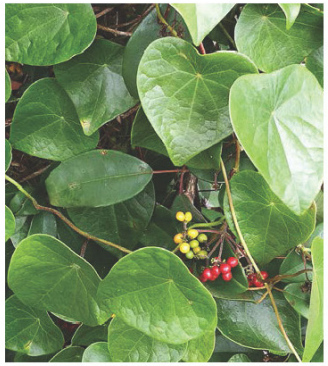
Breynia oblongifolia

Ozothamnus diosmifolius

Lomandra filiformis

Eleocharis cylindrostachys

Carex appressa



Stephania japonica

Commelina cyanea

Ficinia nodosa

Schoenoplectus validus

Philydrum lanuginosum

Figure 74 Riparian Corridor Planting Schedule

Source: Site Image

Industrial On Lot Planting Typologies

Figure 75 Industrial On Lot Planting Typologies *Source: Site Image*

Industrial On Lot Planting Schedule

ON LOT

Botanic Name	Common Name	Mature Size (h x w) (m)
TREES		
Acacia parramattensis	Sydney Green Wattle	12 x 6
Backhousia citriodora	Lemon Myrtle	8 x 4
Backhousia myrtifolia	Grey Myrtle	6 x 3
Brachychiton populneus	Kurrajong	20 x 10
Callistemon salignus		10 x 5
Callistemon viminalis	Bottlebrush	9 x 4.5
Casuarina glauca	Swamp Oak	20 x 4
Ceratopetalum gummiferum	NSW Christmas Bush	6 x 3
Flindersia australis	Crow's Ash	12 x 7
Elaeocarpus reticulatus	Blueberry Ash	15 x 5
Eucalyptus sclerophylla	Scribbly Gum	20 x 6
Fraxinus 'Urbanite'	Urbanite Ash	15 x 8
Hymenosporum flavum	Native Frangipani	10 x 6
Melia azedarach	White Cedar	12 x 8
Tristaniopsis laurina	Water Gum	
SHRUBS		
Bursaria spinosa	Blackthorn	3 x 2
Correa alba	White Correa	1.5 x 1
Correa reflexa	Native Fuchsia	1.2 x 1
Dodonea viscosa	Giant Hop Bush	2 x 1
Grevillea juniperina	Juniper Grevillea	.3 x 2
Indigofera australis	Australian Indigo	2 x 1
Kunzea ambigua	Australian Indigo	2 x 1.5
Leptospermum patersonii	Lemon Scented Tea Tree	5 x 3
Pultenaea parviflora	Sydney Bush-Pea	1.8 x 1
Sambucus gaudichaudiana	White elderberry	2 x 1.5
Westringia fruiticosa	Coastal Rosemary	2 x 1.5

Figure 76 Industrial On Lot Planting Schedule *Source: Site Image*

Industrial On Lot Planting Schedule

GROUNDCOVERS AND GRASSES		
Carex appressa		1 x 1
Cissus antarctica	Kangaroo Vine	.5 x 2
Cymbopogon refractus	Barbed Wire Grass	1 x 1
Dianella caerulea	Flax Lily	.5 x .4
Dianella longifolia	Flax Lily	0.5 x 0.8
Dichondra repens	Kidney Weed	0.3 x 2
Eustrephus latifolius	Wombat berry	3 x 2
Goodenia hederacea	Ivy Goodenia	.8 x 1
Hardenbergia violacea	Purple Coral Pea	.6 x .7
Hibbertia dentata	Trailing guinea flower	1 x 2
Hibbertia scandens	Climbing Guinea Flower	climber
Juncus usitatus	Common Rush	1.2 x 0.8
Lomandra filiformis	Wattle Mat Rush	1.2 x 1
Lomandra longifolia	Common Mat Rush	1.3 x 1.5
Lomandra multiflora		1.2 x 1
Microlaena stipoides var.stipoides	Weeping Grass	.2 x 1
Myoporum parvifolium	Creeping Boobiala	0.3 x 1
Pennisetum clandestinum	Kikuyu	1 x 1.2
Poa labillardieri	Tussock	1 x .5
Pratia purpurascens	Purpleroot	0.2 x 1
Solanum prinophyllum	Forest Nightshade	
Themeda australis	Kangaroo Grass	1 x 1.1
Viola hederacea	Native Violet	0.1 x 2
Wahlenbergia stricta	Tall Bluebell	0.6 x 0.7

Source: Site Image

Figure 76a Industrial On Lot Planting Schedule
Source: Site Image

Table 15 Revegetation Densities

Zone	Revegetation Area (m^2)	Revegetation Densities (m^2)				TOTALS
		Tree	Shrub	Herbs / Scramblers	Sedge / Grass	
MZ1: PCT4025 Low Flow	27,007	-	-	-	6.00	**162,043**
MZ2: PCT4025 Full Revegetation	148,064	1/50	1/10	1.00	3.00	**610,0243**
MZ3: PCT4025 Assisted Regeneration	33,325	1/50	1/10	1.00	3.00	**137,300**
MZ4: PCT4023 Assisted Regeneration	1,110	1/50	1/10	1.00	3.00	**4,571**
TOTALS	**209,506**	**3,650**	**18,250**	**182,499**	**709,539**	**913,938**

Source: Eco Logical Australia

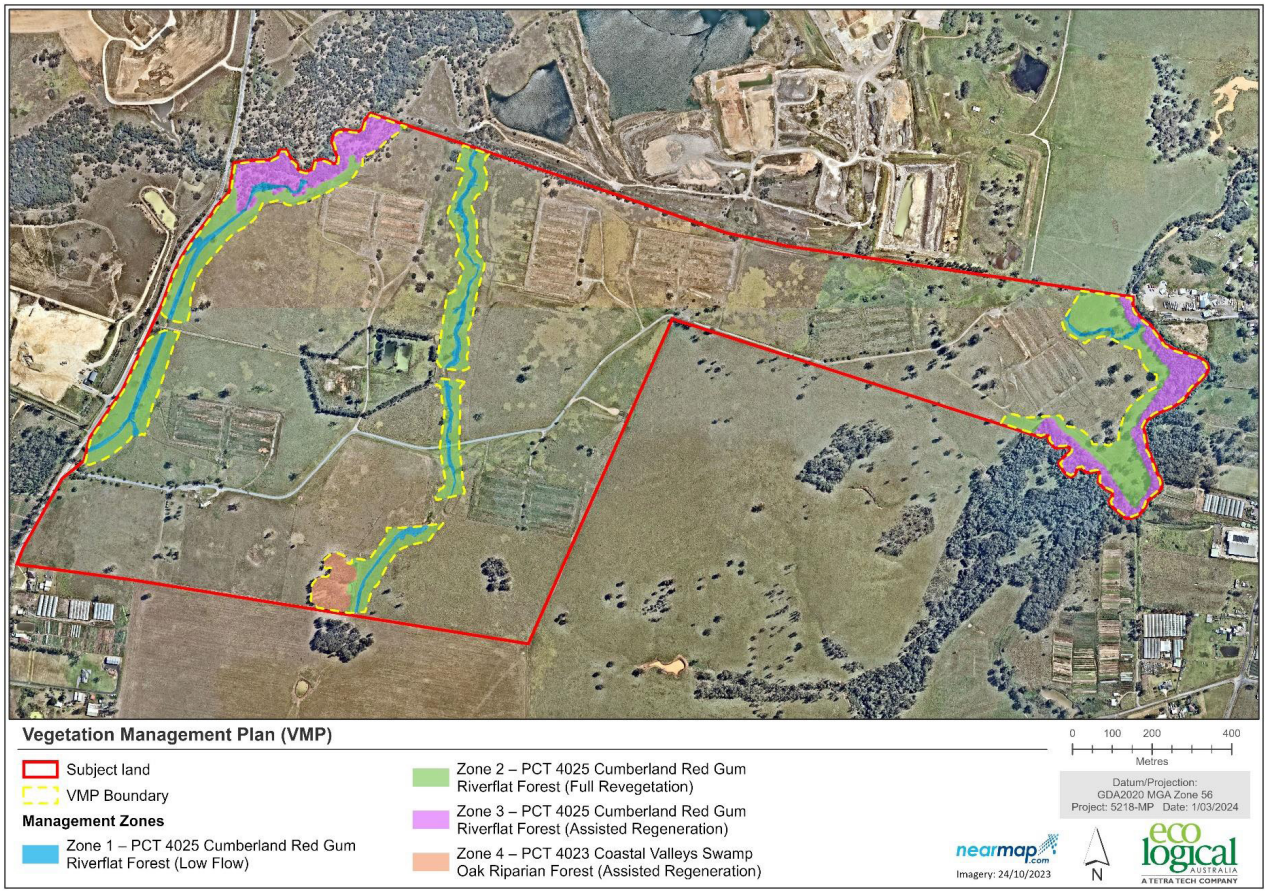


Figure 77 VMP Management Zones

Source: Eco Logical Australia

8.6.5 Inter Boundary Treatment

Additional Control

1. Inter boundary treatment between industrial lots within Master Plan is to be enhanced by landscaping. Figure 78 below provides an indicative approach to landscape treatment along the boundary.
2. Inter-lot boundary treatments utilise tree & shrub planting to help screen the retaining walls between lots.

Figure 78 Inter Boundary Treatment
Source: Site Image

8.6.6 Airport Safeguarding

This section sets out alternative benchmark solutions to those set out in the DCP in Section 2.10.3(PO2) for airport safeguarding.

Additional Control

1. Landscape species within the Badgerys Creek Road Master Plan are to be delivered in accordance with the planting strategy, planting typologies and species selection in Section 8.6.4 of the Master Plan.
2. On-lot and streetscape planting within the Master Plan is to be delivered in accordance with the Wildlife Risk and Exempt Species identified in Table 16.

Wildlife Risk and Exempt Species

Table 16 Wildlife Risk and Exempt Species

Common Name	Botanical Name	Dimensions (H x W) (m)
Myall Wattle	Acacia binervia	8 x 8
Black Wattle	Acacia decurrens	10 x 8
Parramatta Wattle	Acacia parramattensis	15 x 8
Boree Wattle	Acacia pendula	10 x 8
Willow Myrtle	Agonis flexuosa	10 x 5
Trident Maple	Acer buergerianum	6 x 6
Autumn Blaze Maple	Acer x freemanii 'Jeffersred' Autumn Blaze	13 x 10
Japanese Maple	Acer palmatum	4 x 4
Western Rosewood	Alectryon oleifolius	9 x 8
Native Quince	Alectryon subcinereus	10 x 6
Black Sheoak	Allocasuarina littoralis	10 x 4
Whitewood	Atalaya hemiglauca	10 x 5
Diamond-leaf Pittosporum	Auranticarpa rhombifolium	25 x 4
Illawarra Flame Tree	Brachychiton acerifolius	12 x 6
Kurrajong	Brachychiton populneus	20 x 6
Queensland Bottle Tree	Brachychiton rupestris	15 x 5
Black Cypress Pine	Callitris endlicheri	15 x 3
Oyster Bay Pine	Callitris rhomboidea	12 x 4
Mallee Pine	Callitris verrucosa	8 x 6
Weeping Bottlebrush	Callistemon viminalis	6 x 4
Moreton Bay Chestnut	Castanospermum australe	30 x 12
Belah Tree	Casuarina cristata	13 x 8
River Sheoak	Casuarina cunninghamiana	25 x 6
Swamp Sheoak	Casuarina glauca	20 x 6
NSW Christmas Bush	Ceratopetalum gummiferum	5 x 3
Hairy Lolly Bush	Clerodendrum tomentosum	10 x 4
Koda Tree	Ehretia acuminata	10 x 8
Crow's Ash	Flindersia australis	12 x 7
Urbanite As	Fraxinus 'Urbanite'	11 x 8
Wilga Tree	Geijera parviflora	15 x 7
Cheese Tree	Glochidion ferdinandi	30 x 10
Native Rosella	Hibiscus heterophyllus	6 x 4
Native Frangipani	Hymenosporum flavum	8 x 6
Jacaranda	Jacaranda mimosifolia	10 x 8
Golden Rain Tree	Koelreuteria paniculata	6 x 4
Crepe Myrtle	Lagerstroemia indica	8 x 6
Lemon-scented Teatree	Leptospermum petersonii	5 x 2
Sweet Gum	Liquidambar styraciflua	20 x 12
Muttonwood	Myrsine variabilis	12 x 10
Oak Tree	Quercus sp.	24 x 24
Deep Yellow-wood	Rhodosphaera rhodanthema	20 x 15
Weeping Lilly Pilly	Waterhousea floribunda	30 x 10

Source: Site Image

9 SUB-PRECINCTS AND CENTRES

9.1 Local Centre

9.1.1 Role and intent

The Local Centre will be a community-focused hub that offers the convenience of public and commercial services and an energising sense of civic and public connectivity, The built environment and public domain within the Local Centre is to support retail activation and pedestrian amenity within the Master Plan.

Additional Controls

1. The development of the local centre is to be delivered in accordance with the provisions within the Local Centre Indicative Plan in Figure 79.
2. Through site links and promenades are to be provided within the local centre to improve permeability and improve access to the local centre.
3. Potential landmark buildings within the local centre are to be delivered generally in accordance with the locations mapped in Figure 79.
4. Street frontage activation within the local centre to deliver a more vibrant and active ground plane, is to be delivered generally in accordance with the frontage mapped in Figure 79.
5. Minimum setbacks within the local centre are to comply with the minimum provisions in accordance with Figure 79.
6. The Local Park within the local centre must receive a minimum of 3 hours direct sunlight between 11am and 3pm on 21 June.
7. Development within the local centre is to support passive surveillance particularly along the laneways and riparian corridor interfaces, through measures such as the placement of windows, secondary entries, staff amenities and communal spaces.
8. Development within the local centre is to support clear sightlines connecting pedestrian routes to key public domain areas and the local park.

Legend

- Min. 0m Setback
- Min. 3m Setback
- Min. 6m Setback
- Min. 5m Setback above 3 Storeys
- Min. 20m Setback from ERR
- Through Site Link & Laneways
- Promenade
- Potential Landmark Building
- Street frontage will be activated with retail/cafés/restaurants
- Public Transport Route and Potential Stop
- Vehicle Access to Lots
- Primary Access to Lobby
- Public Open Space must receive a minimum of 3 hours direct sunlight between 11am and 3pm on 21 June
- Pedestrian and Cycleway Link

On- street parking integrated with planting and tree canopy.

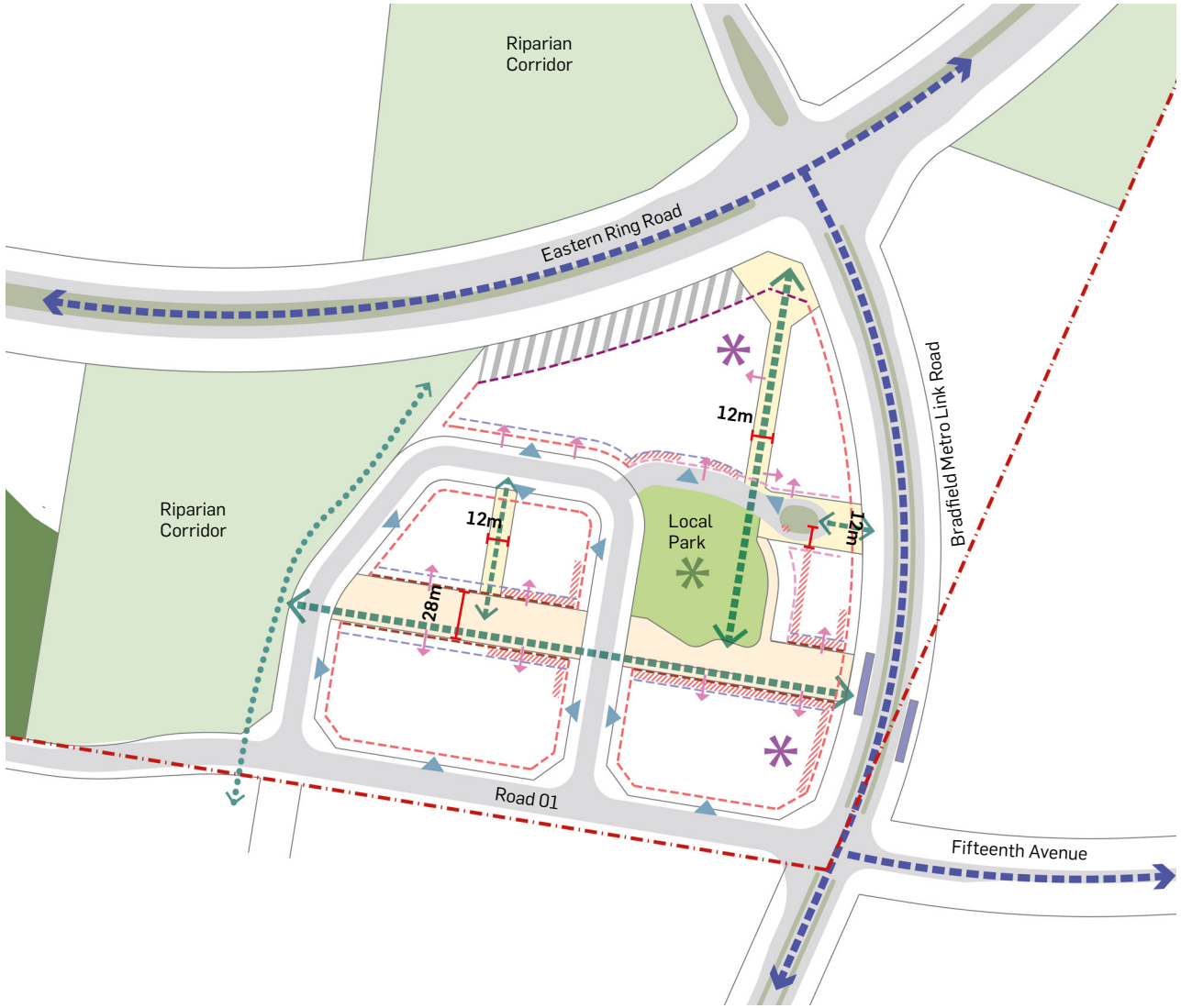


Figure 79 Local Centre Indicative Plan
Source: Urbis

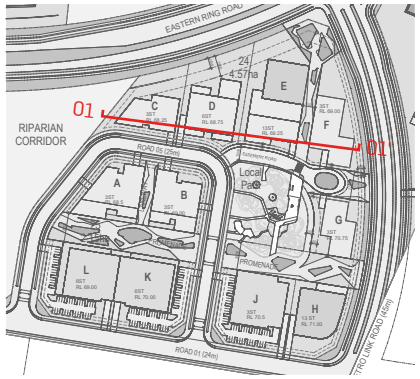
9.1.2 Street Sections

Additional Controls

1. Street design and frontages within the local centre is to be designed in accordance with the indicative street sections in Figure 80, Figure 81, Figure 82 and Figure 83.

Legend

- Commercial/ Retail Use
- Building Height Limit Line Measured from Existing Ground Line
- Existing Ground Line
- Proposed Level Line as per Civil Engineer's Detail



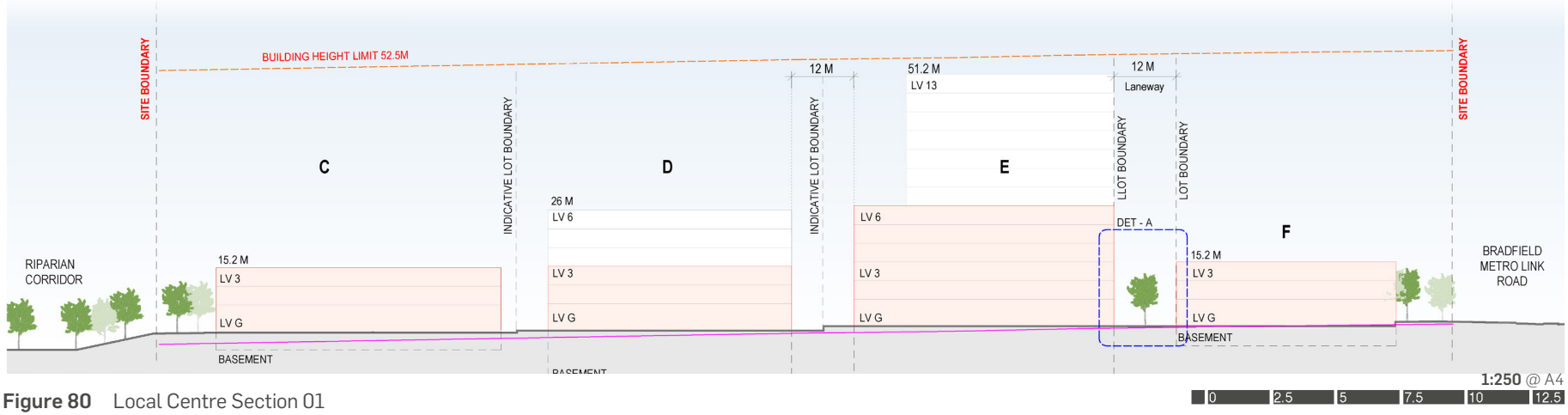


Figure 80 Local Centre Section 01

Source: SBA Architects

NOTE: All building heights are measured from the existing ground line.

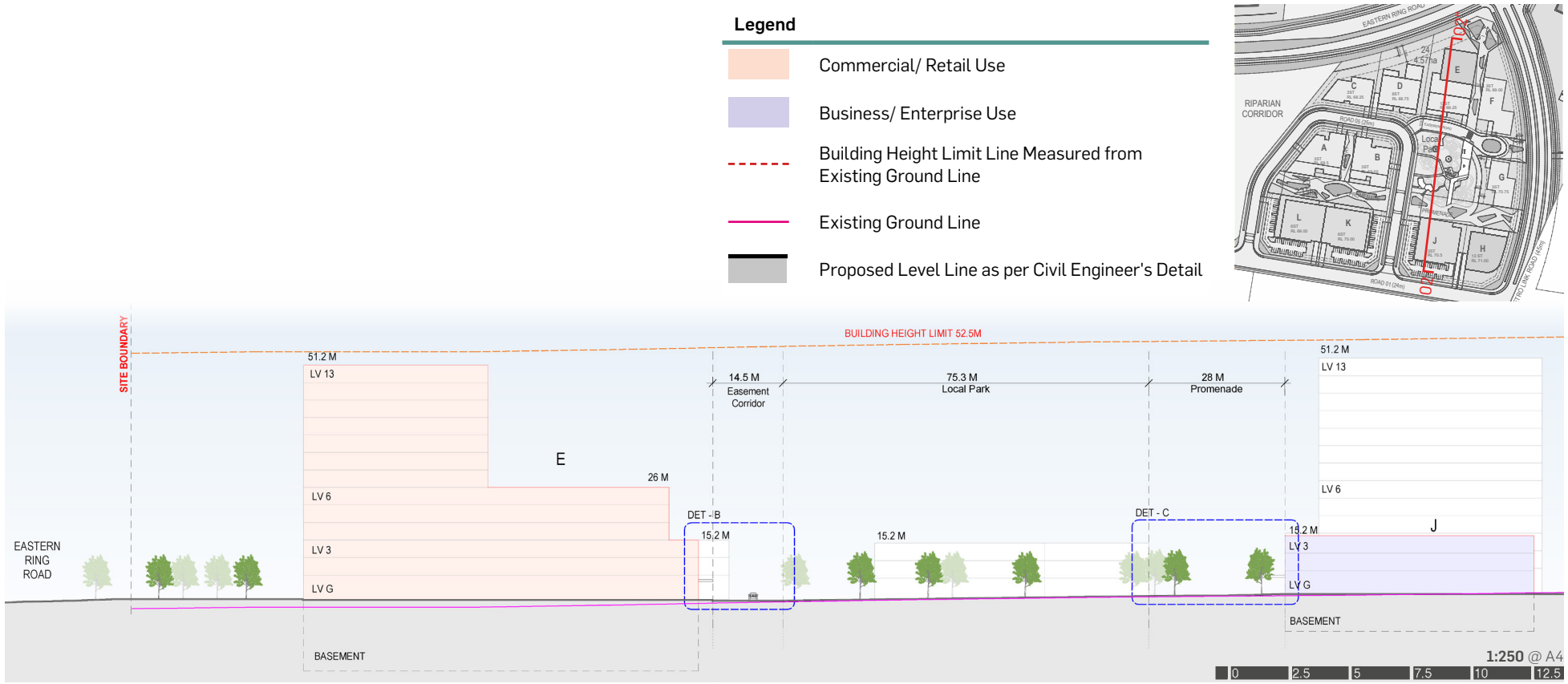


Figure 81 Local Centre Section 02

Source: SBA Architects

NOTE: All building heights are measured from the existing ground line.

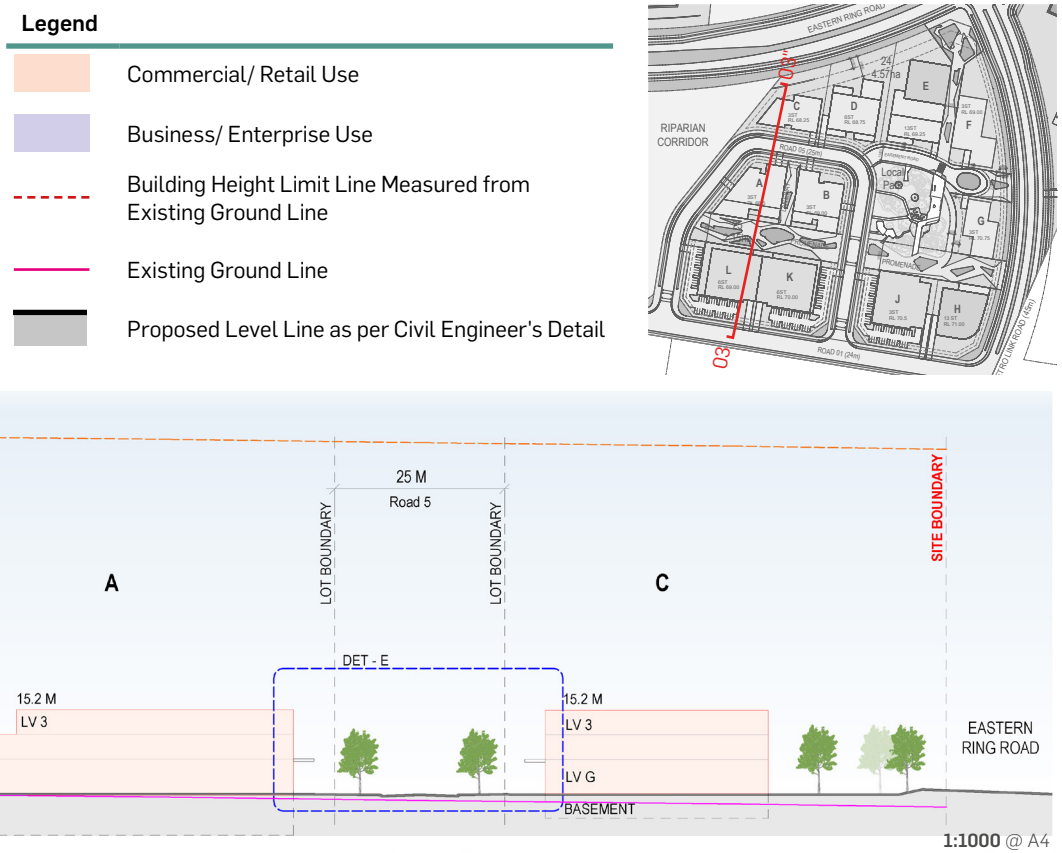
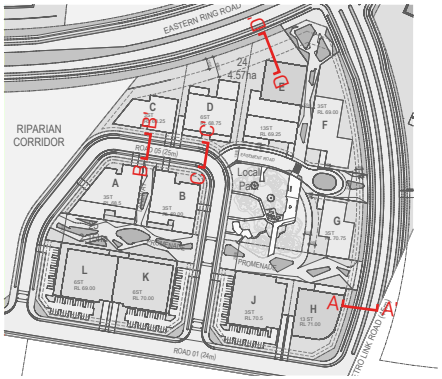


Figure 82 Local Centre Section 03
Source: SBA Architects

NOTE: All building heights are measured from the existing ground line.

Source: SBA Architects



Legend

- Carriageway
- Public Domain
- Building Footprint

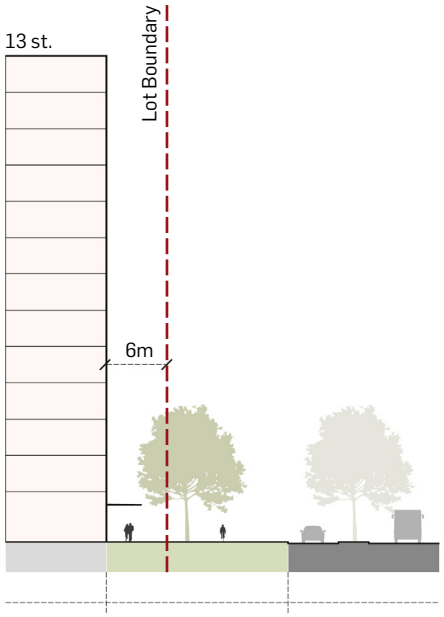


Figure 83 Local Centre Section A - A'
Source: Urbis

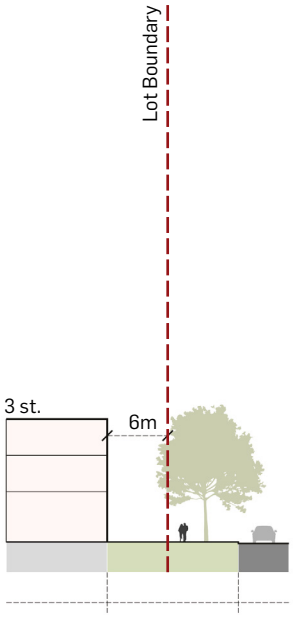


Figure 84 Local Centre Section B - B'

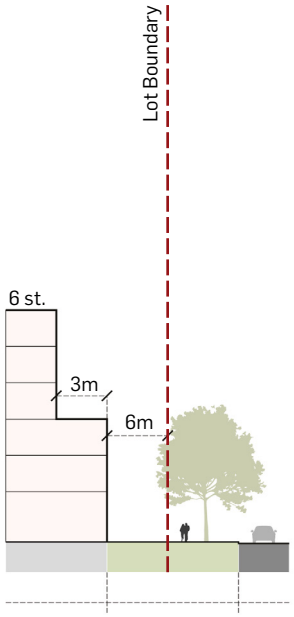


Figure 85 Local Centre Section C - C'

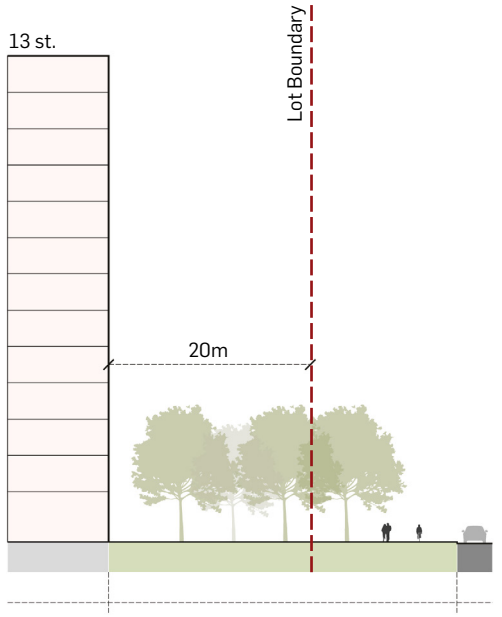


Figure 86 Local Centre Section D - D'

1:750 @ A4

0 10 20 30 40

9.1.3 Landscaping

The Local Centre landscape strategy looks to provide outdoor amenity spaces that maximise interaction with the natural landscape. The strategy aims to seamlessly integrate laneways, a local park, promenade/plaza areas, and smaller amenity zones within building forecourts and prioritise pedestrian movement. Nestled in the heart of the local centre, the park is a focal point/ meeting place for all site users, easily accessed and close to transport connections.

Objectives

- Create safe and well-connected pedestrian network to prioritise pedestrian and cycle movement.
- Promote inclusive design solutions for the public domain.
- Appropriate size and locations of the public domain with a range of diverse uses to meet daily needs and amenity.
- Prioritise shared uses of the public domain.

Additional Control

1. Landscape design within the local centre is to be designed in accordance with the principles and benchmark solutions in Table 17.
2. Planting within the local centre is to be designed in accordance with the Local Centre Planting Typologies in Figure 90 and the Local Centre Planting Schedule in Figure 91, Figure 91a and Figure 91b.
3. Ensure the mass planting within the local centre does not obstruct sightlines for drivers, cyclists, and pedestrians at the intersection.
4. Maintain a clear zone around the intersection with low or no vegetation, particularly near pedestrian crossings or roadways.

Figure 87 Illustrative Master Plan of Local Centre

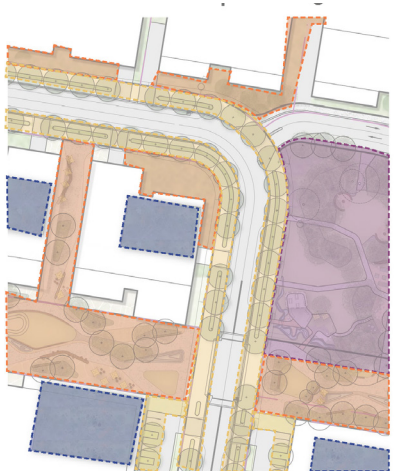
Source: Site Image

Table 17 Local Centre Landscape Elements and Design Principles

Local Centre Landscape Typology Principles	Typical Benchmark
Local Centre - Local Park Design Principles	
The Local Park is to form the focal point of the Local Centre and provide recreational amenity and communal gathering spaces for workers and visitors. The Local Park is to form a continuation of the east-west Promenade and promote a seamless pedestrian experience. The Local Park is to be supported by the retention of a portion of existing trees, where possible. This will contribute to canopy cover within the Local Centre and provide landscape amenity for workers and visitors.	Refer to Figure 165 in Section 14 Design Quality Strategy
Local Centre – Promenade Design Principles	
The Promenade is to form the central east-west axis of the Local Centre and is to be supported by active frontages to the north and south, complementing the commercial retail uses. The Promenade is to connect the Local Park to the central riparian corridor of the Master Plan. The Promenade will be supported by a range of materials and landscaping to enhance the pedestrian experience and provide varied amenities.	Refer to Figure 149 in Section 14 Design Quality Strategy
Local Centre – Planting Strategy	
Planting within the local centre is to be delivered in accordance with the Planting Schedule and Figure 91a.	

Figure 88 Local Centre - Local Park Design Elements
Source: Site Image

Figure 89 Local Centre - Promenade Design Elements
Source: Site Image



Legend

Low Maintenance Planting

Commercial open space planting will compliment amenity areas for staff and visitors planting will include low maintenance native species selected to contribute colour, texture and seasonal interest to the spaces.

Planting to Local Park

Planting within the park will feature canopy tree planting to compliment the stand of existing Corymbia as the parks centerpiece. Opportunities for traditional resource planting will also be explored.

Street Trees and Carpark Planting

The streetscape will feature a framework of street trees appropriate to the scale of streets and adjacent buildings. These will be complemented by an understorey of low massed native shrubs grasses and groundcovers. Canopy tree planting will provide shade cover across hardstand areas with low native understorey planting ensuring sightlines are maintained throughout the carpark.

Green Roofs/ Rooftop Planting

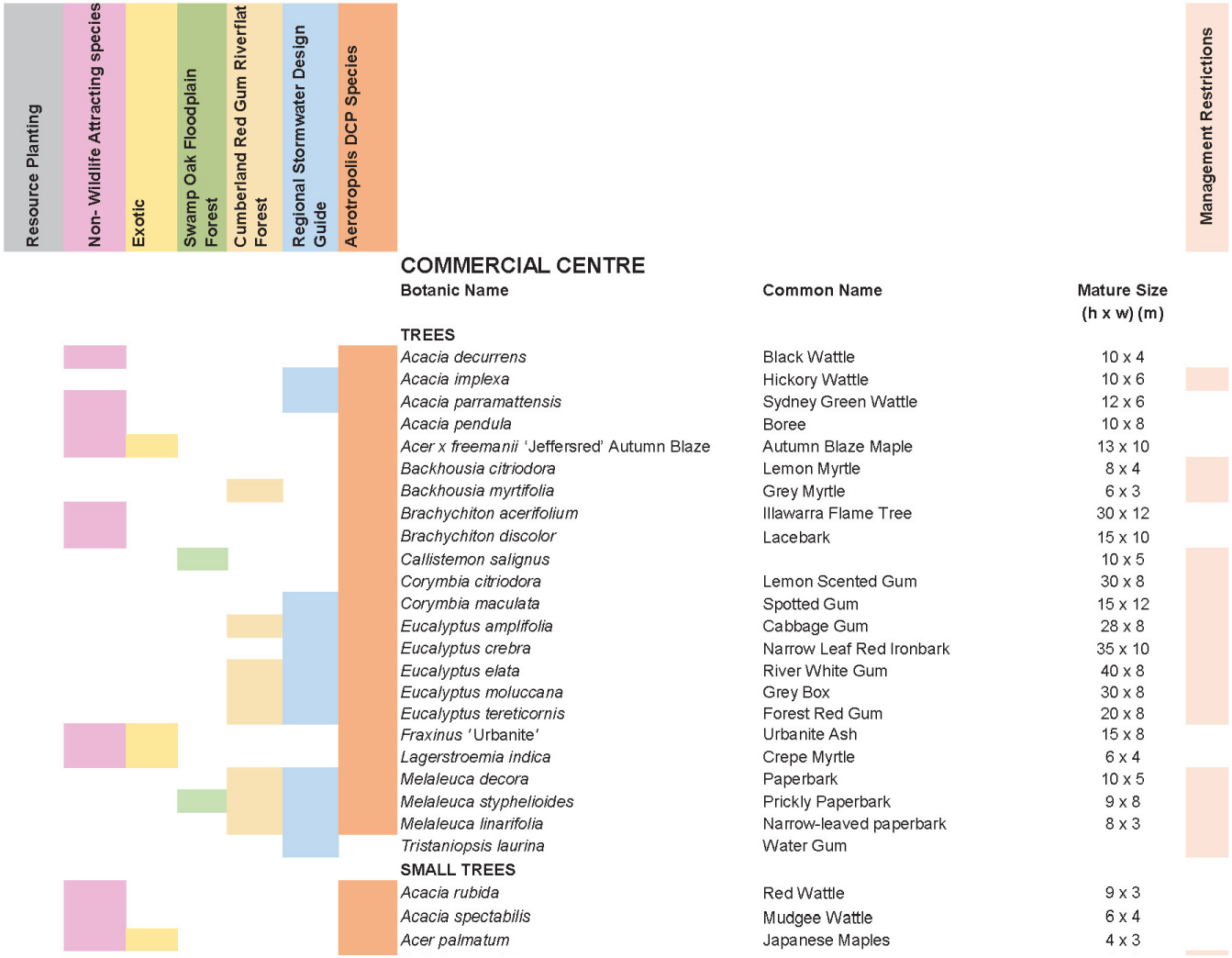
Rooftop planting will include resilient low water use species.

Figure 90 Local Centre Planting Strategy
Source: Site Image

Local Centre Planting Typologies

Figure 91 Local Centre Planting Typologies *Source: Site Image*

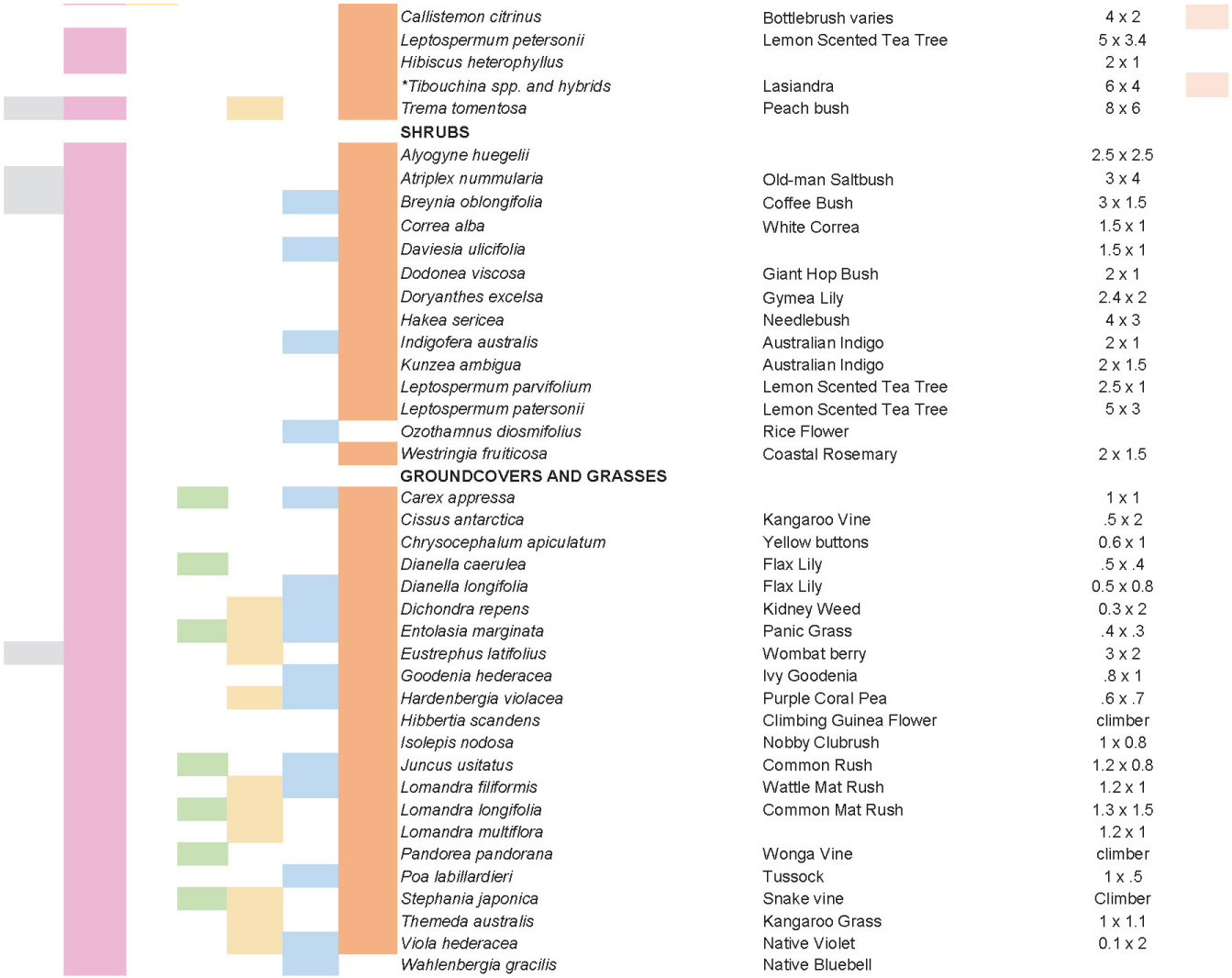
Local Centre Planting Schedule



COMMERCIAL CENTRE

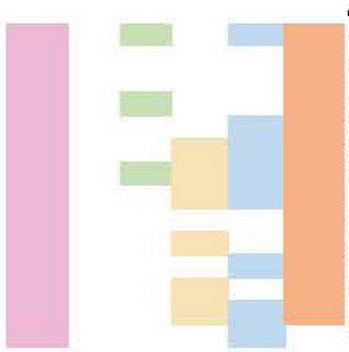
Botanic Name	Common Name	Mature Size (h x w) (m)
TREES		
Acacia decurrens	Black Wattle	10 x 4
Acacia implexa	Hickory Wattle	10 x 6
Acacia parramattensis	Sydney Green Wattle	12 x 6
Acacia pendula	Boree	10 x 8
Acer x freemanii 'Jeffersred' Autumn Blaze	Autumn Blaze Maple	13 x 10
Backhousia citriodora	Lemon Myrtle	8 x 4
Backhousia myrtifolia	Grey Myrtle	6 x 3
Brachychiton acerifolium	Illawarra Flame Tree	30 x 12
Brachychiton discolor	Lacebark	15 x 10
Callistemon salignus		10 x 5
Corymbia citriodora	Lemon Scented Gum	30 x 8
Corymbia maculata	Spotted Gum	15 x 12
Eucalyptus amplifolia	Cabbage Gum	28 x 8
Eucalyptus crebra	Narrow Leaf Red Ironbark	35 x 10
Eucalyptus elata	River White Gum	40 x 8
Eucalyptus moluccana	Grey Box	30 x 8
Eucalyptus tereticornis	Forest Red Gum	20 x 8
Fraxinus 'Urbanite'	Urbanite Ash	15 x 8
Lagerstroemia indica	Crepe Myrtle	6 x 4
Melaleuca decora	Paperbark	10 x 5
Melaleuca styphelioides	Prickly Paperbark	9 x 8
Melaleuca linarifolia	Narrow-leaved paperbark	8 x 3
Tristaniopsis laurina	Water Gum	
SMALL TREES		
Acacia rubida	Red Wattle	9 x 3
Acacia spectabilis	Mudgee Wattle	6 x 4
Acer palmatum	Japanese Maples	4 x 3

Figure 91a Local Centre Planting Schedule *Source: Site Image*



Callistemon citrinus	Bottlebrush varies	4 x 2
Leptospermum petersonii	Lemon Scented Tea Tree	5 x 3.4
Hibiscus heterophyllus		2 x 1
**Tibouchina spp. and hybrids*	Lasiandra	6 x 4
Trema tomentosa	Peach bush	8 x 6
SHRUBS		
Alyogyne huegelii		2.5 x 2.5
Atriplex nummularia	Old-man Saltbush	3 x 4
Breynia oblongifolia	Coffee Bush	3 x 1.5
Correa alba	White Correa	1.5 x 1
Daviesia ulicifolia		1.5 x 1
Dodonea viscosa	Giant Hop Bush	2 x 1
Doryanthes excelsa	Gymea Lily	2.4 x 2
Hakea sericea	Needlebush	4 x 3
Indigofera australis	Australian Indigo	2 x 1
Kunzea ambigua	Australian Indigo	2 x 1.5
Leptospermum parvifolium	Lemon Scented Tea Tree	2.5 x 1
Leptospermum patersonii	Lemon Scented Tea Tree	5 x 3
Ozothamnus diosmifolius	Rice Flower	
Westringia fruiticosa	Coastal Rosemary	2 x 1.5
GROUNDCOVERS AND GRASSES		
Carex appressa		1 x 1
Cissus antarctica	Kangaroo Vine	.5 x 2
Chrysocephalum apiculatum	Yellow buttons	0.6 x 1
Dianella caerulea	Flax Lily	.5 x .4
Dianella longifolia	Flax Lily	0.5 x 0.8
Dichondra repens	Kidney Weed	0.3 x 2
Entolasia marginata	Panic Grass	.4 x .3
Eustrephus latifolius	Wombat berry	3 x 2
Goodenia hederacea	Ivy Goodenia	.8 x 1
Hardenbergia violacea	Purple Coral Pea	.6 x .7
Hibbertia scandens	Climbing Guinea Flower	climber
Isolepis nodosa	Nobby Clubrush	1 x 0.8
Juncus usitatus	Common Rush	1.2 x 0.8
Lomandra filiformis	Wattle Mat Rush	1.2 x 1
Lomandra longifolia	Common Mat Rush	1.3 x 1.5
Lomandra multiflora		1.2 x 1
Pandorea pandorana	Wonga Vine	climber
Poa labillardieri	Tussock	1 x .5
Stephania japonica	Snake vine	Climber
Themeda australis	Kangaroo Grass	1 x 1.1
Viola hederacea	Native Violet	0.1 x 2
Wahlenbergia gracilis	Native Bluebell	

Source: Site Image



GREEN ROOF SPECIES		
Carex appressa		1 x 1
Cissus antarctica	Kangaroo Vine	.5 x 2
Chrysocephalum apiculatum	Yellowbuttons	0.6 x 1
Dianella caerulea	Flax Lily	.5 x .4
Dianella longifolia	Flax Lily	0.5 x 0.8
Dichondra repens	Kidney Weed	0.3 x 2
Entolasia marginata	Panic Grass	.4 x .3
Hardenbergia violacea	Purple Coral Pea	.6 x .7
Hibbertia scandens	Climbing Guinea Flower	climber
Lomandra multiflora		1.2 x 1
Poa labillardieri	Tussock	1 x .5
Themeda australis	Kangaroo Grass	1 x 1.1
Viola hederacea	Native Violet	0.1 x 2
Wahlenbergia gracilis	Native Bluebell	

Figure 91b Local Centre Green Roof/Rooftop Planting Typologies *Source: Site Image*

9.2 Local Park

The Local Park within the Local Centre provides a central hub for education, such as the sharing of stories of the two creeks and the context of the broader site. A grove of existing trees within the park will be partially retained and bolstered with additional shrub and ground cover planting to help promote a bio-diverse ecosystem. Sightlines through the park will highlight views of the surrounding natural landscape.

The lots are bolstered with feature planting at entryways with strong setback and frontage planting, as well as appropriate canopy coverage across the site.

Additional Control

1. The landscape plan in Figure 92 below is to assist with guiding the landscape design of the park.
2. The Local Park must be delivered within the Local Centre and is to form the central focal point of the Local Centre.
3. The location of the Local Park is to reinforce the cluster of trees which will largely be retained in its existing formation. The removal of trees is to be guided by the public domain outcome and the indicative landscape plan.
4. Opportunities for water features are to be explored within the local park to mitigate urban heat impacts within the local centre.
5. Seating, steps and landscape mounds should be considered along the edge of the local park to ensure an active streetscape interface, provided where suitable levels can be achieved.

Legend

01	Water Feature/ Creek Motif to the Northern Edge
02	Retention of Existing Trees
03	Communal Picnic Area
04	Nature Play Area
05	Flexible Area for Community Use
06	Passive Use Lawn Area
07	Arterial Pedestrian Connection
08	Boardwalk around Structural Root Zones
09	Mass Planting
10	Community Gardens
11	Continuation of plaza/ promenade

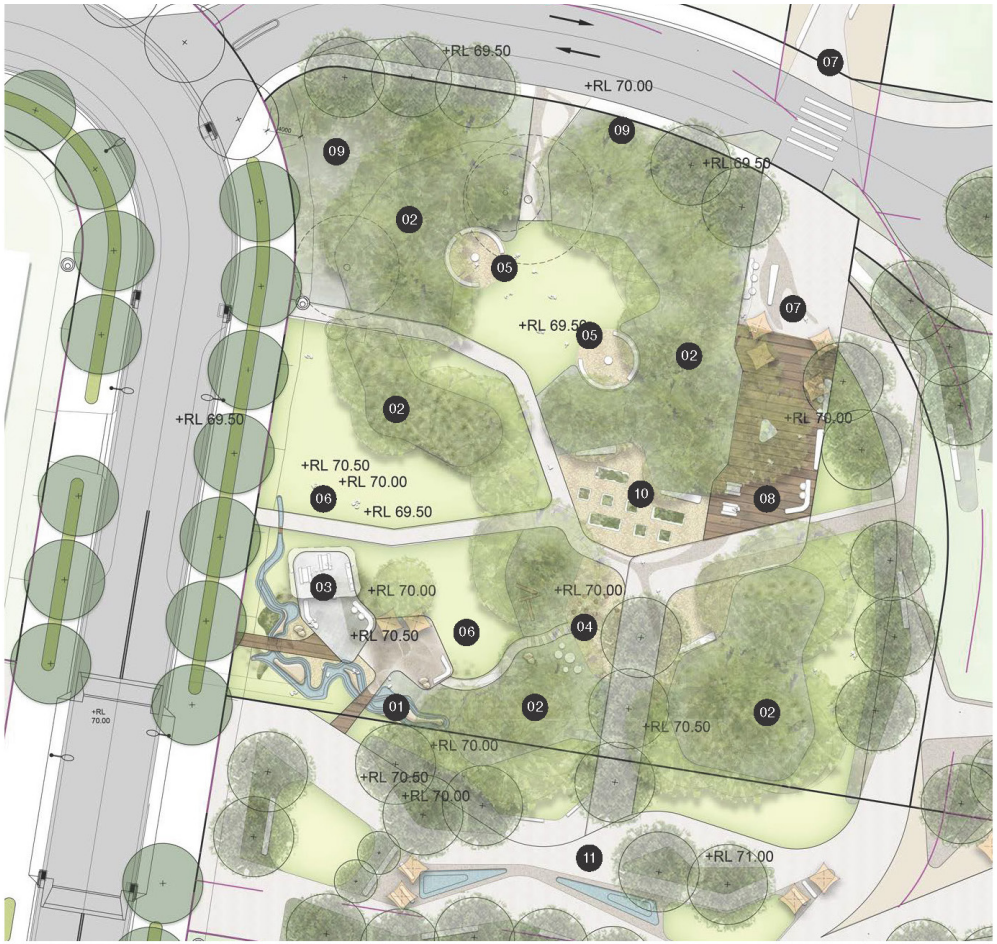


Figure 92 Detailed Local Park Plan

Source: Site Image

9.3 Amenity Nodes

Public amenity nodes identified within the Master Plan are to be designed in accordance with the objectives and controls within this section.

Public amenity nodes will be located within some industrial lots to provide smaller public restaurant/cafe offering in locations will allow all site users equitable amenity close to offices/ warehouses across the site.

The locations have been nominated based on the Connection with Country philosophy of taking advantage of key view to corridors and mountains.

Objectives

- To provide amenities for workers and visitors throughout the Master Plan to cater to day-to-day needs.
- To provide amenity catchments with the Master Plan that are accessible and well-located.

Additional Control

1. The indicative amenity nodes are to be provided in suitable locations as shown in Figure 93.
2. Figure 93 across provides an indicative design of an amenity node within an industrial and enterprise lot.
3. The design of amenity nodes is to be in accordance with the additional principles to the Centres Hierarchy provisions in Table 18 across.
4. An amenity node must not exceed a GFA greater than 250sqm.
5. The amenity nodes identified within the Structure Plan in Figure 5 will be provided concurrent with the staged delivery of the estate delivery in accordance with the Stages 1, 3, 4 and 6, as detailed in Section 11.1.
6. Amenity nodes must be designed to include publicly accessible spaces that are accessible to all.
7. Amenity nodes are to be visually distinct from the primary development and supported by amenities including public seating, shade structures and tree canopy provisions that contribute to the 15% lot canopy target.

Table 18 Amenity Node Principles – Centres Hierarchy

Centre type and Precinct	Role and Intent	Typical Uses	Transport Connectivity	Critical locational criteria
Amenity Node within Badgerys Creek Road Master Plan	Provide suitable amenity within the enterprise and industrial estate which cater to the immediate needs of workers	Smaller public restaurant/cafe offering in locations will allow all site users equitable amenity close to offices/ warehouses across the site.	High level of pedestrian accessibility from surrounding development. Amenity nodes can also be accessed by car. The provision of parking is required for the amenity node with 1 spaces per 25sqm of GFA.	Located in accessible and visible locations within the Badgerys Creek Road Master Plan. Located to serve all walking catchments within the Badgerys Creek Road Master Plan.

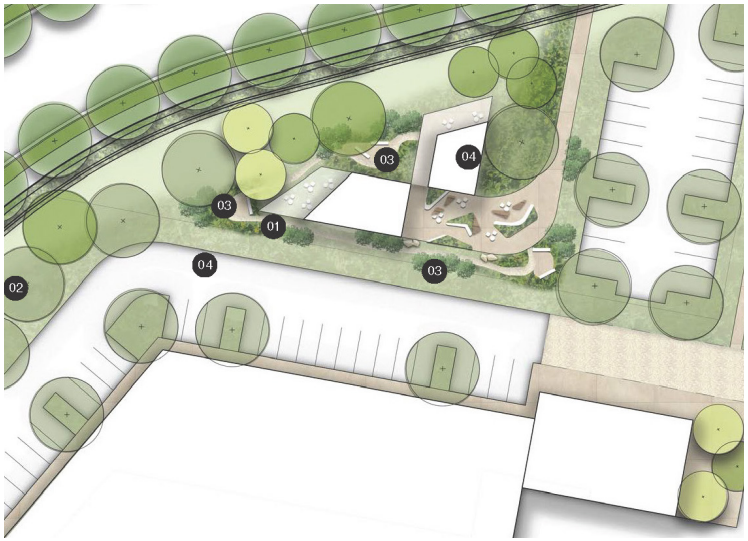
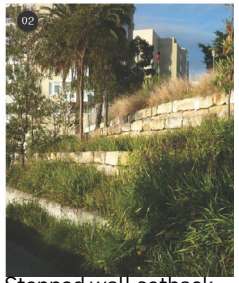
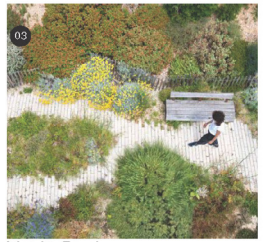


Figure 93 Public Amenity Node

Natural shade coverage



Stepped wall setback



Node Pathways

Picnic Amenity Shelters

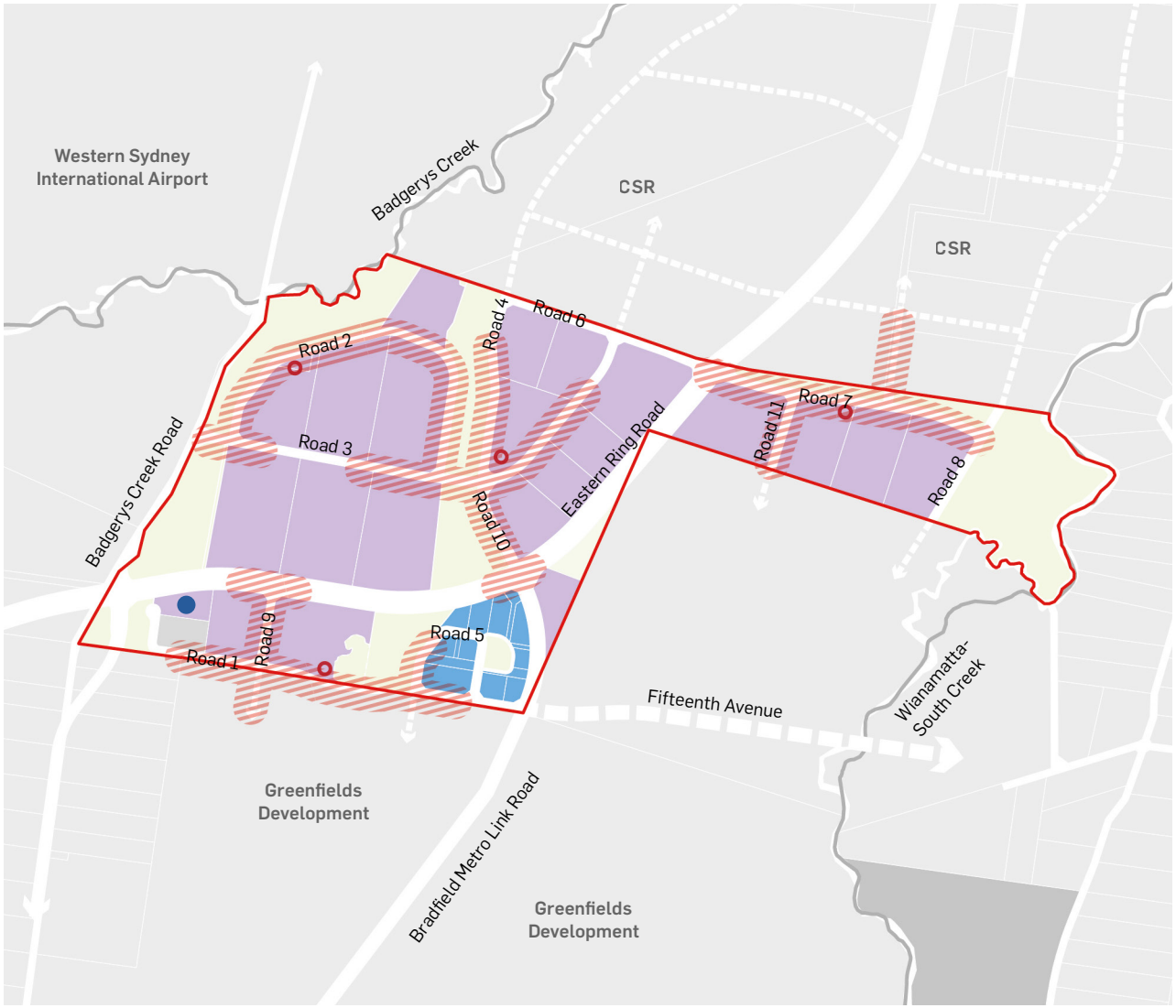


Figure 94 Amenity Node Locations and Walking Catchments

9.4 Western Parcel

9.4.1 High-Bay Warehousing - Western Parcel

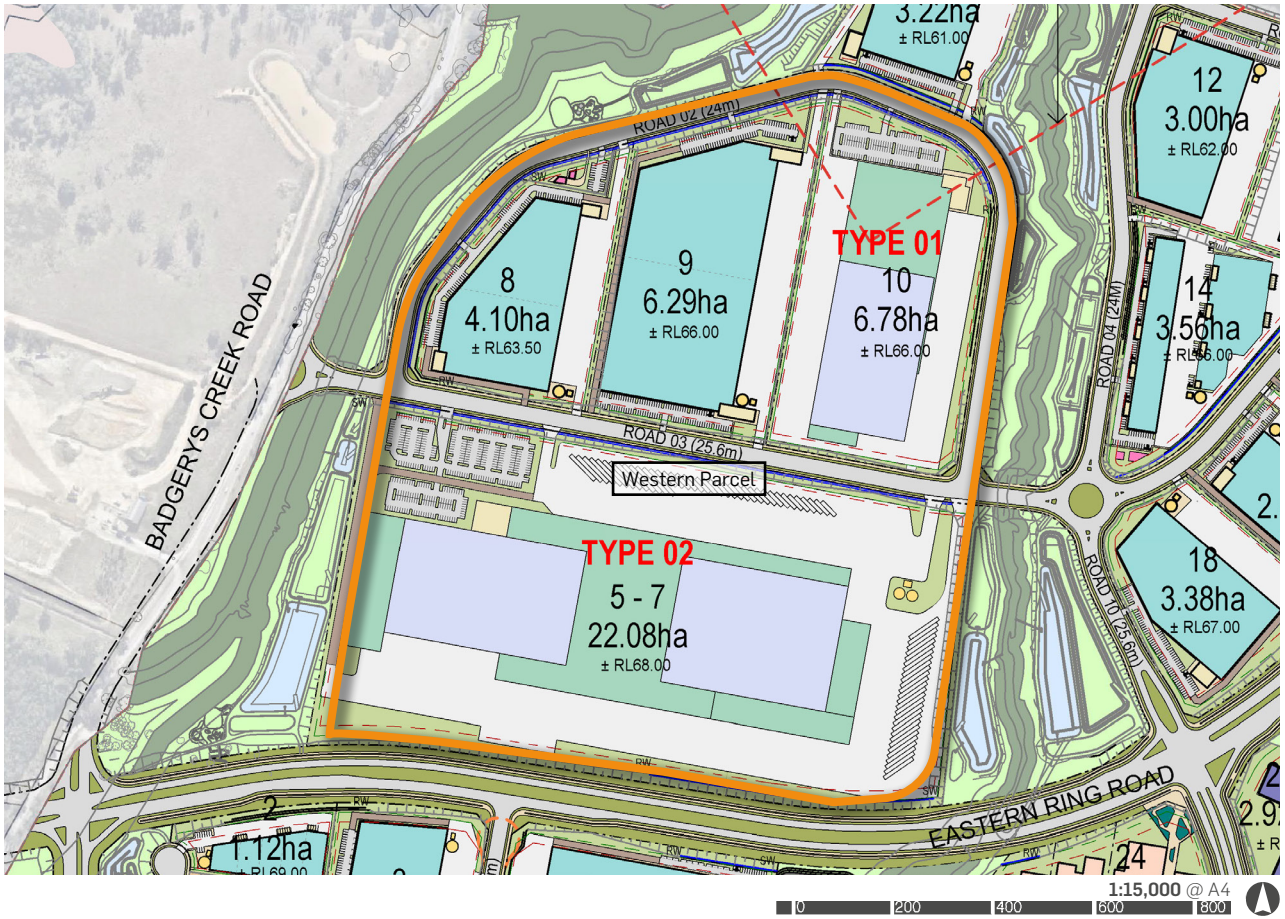
The purpose of this section is to provide high-bay warehousing built form and landscaping provisions within the Western Parcel of the Master Plan.

The western parcel is situated within the first and second development stages of the Master Plan. Interim access is to be provided off Badgerys Creek Road to the west. This parcel also forms the largest contiguous developable area within the site. The western parcel can cater for potential market demand for more compact high-bay warehousing.

Proposing a 52.5m height limit in this location would not only respond to potential market demand, but also respond to the Precinct Plan's objective to deliver employment diversity which leverages off the proximity to the new Western Sydney International Airport (WSI).

The indicative high-bay warehousing configuration is provided in the Indicative Massing Western Parcel plan in Figure 96 and is noted as Type 01 and Type 02.

Figure 95 3D Visualisation of Western Parcel
Source: SBA



Legend

- Warehouse, 14M
- Warehouse Height Below 35m
- High Bay Component Height Exceeding 35m But Below 52.5m
- Riparian Corridors
- Local Park
- Storage Basin
- Fire Trial
- Fire Services

Figure 96 Indicative Massing Western Parcel

Source: SBA

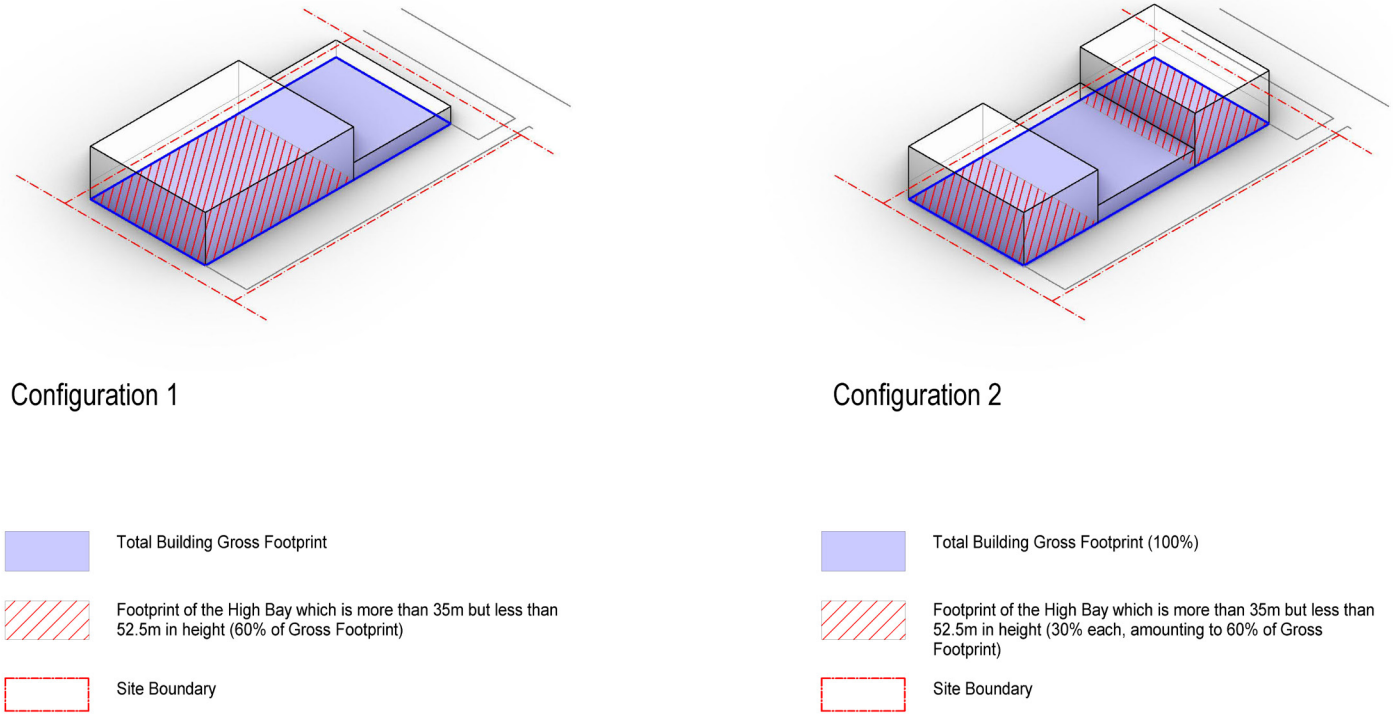


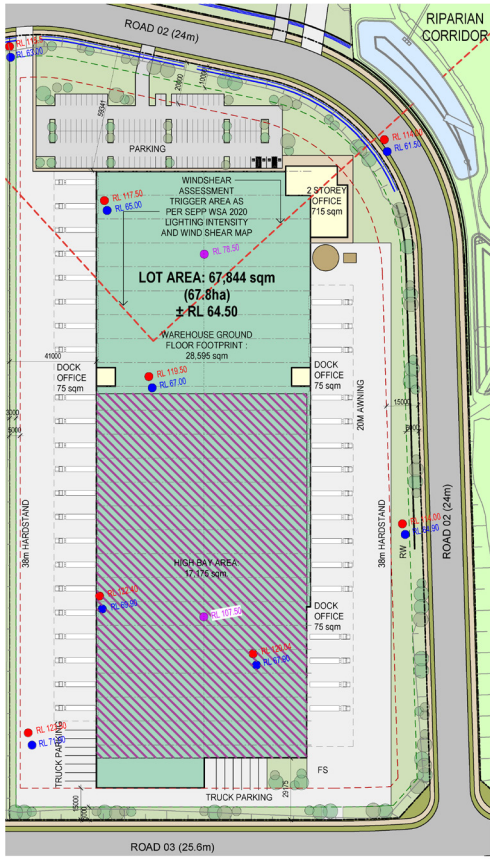
Figure 97 High Bay Warehousing Indicative Design Response

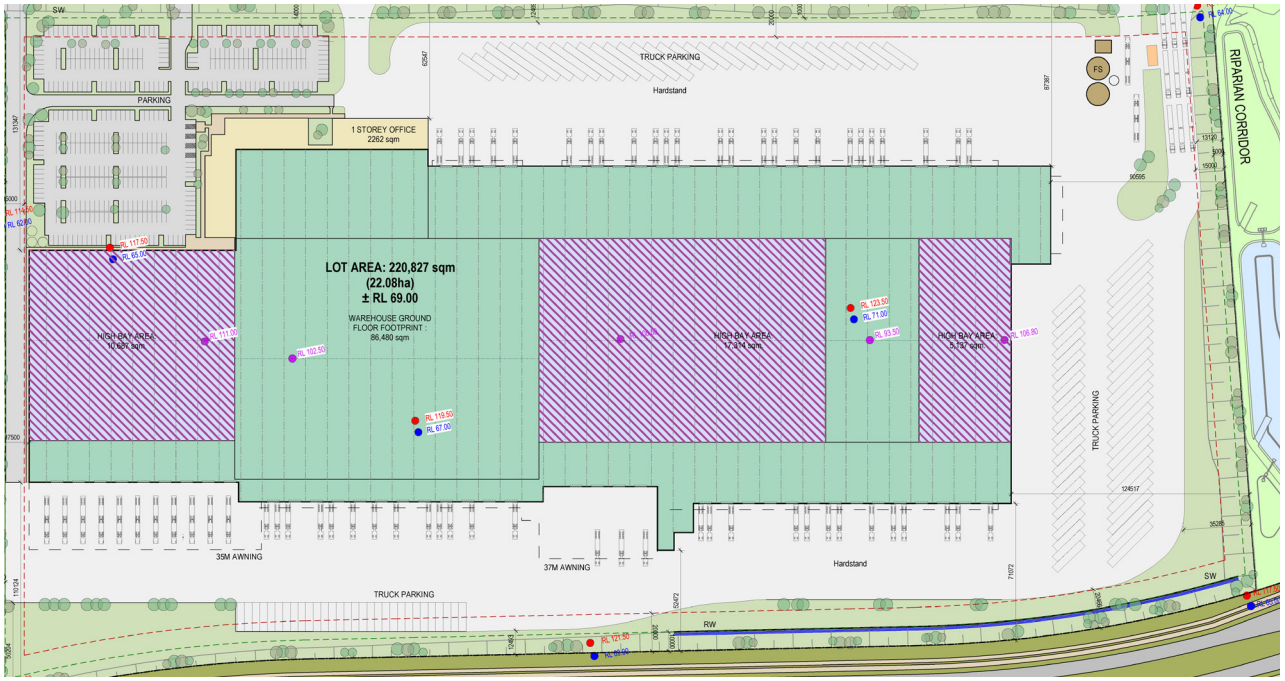
Source: SBA

9.4.2 Height

Additional Control

1. Development within the western parcel of the Master Plan is to comply with the height provisions of 52.5m set out in Height Control map in Figure 26.
2. High bay warehousing within the western parcel is to align with the built form parameters and height controls established in the indicative massing for high bay warehousing in Figure 98.
3. The portion of the high bay component over the warehouse ground floor footprint which can meet the maximum height provisions of 52.5m must not exceed 60% of the total warehouse footprint (see hatch area in Figure 98).





Legend

- Office/ Ancillary Office
- Landscape Area
- Street Landscape
- Hard Landscape/ Footpath
- Warehouse Ground Floor
- High Bay Area

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0 50 100 150 200

Figure 98 Indicative Massing Western Parcel – High Bay Warehouse

Source: SBA

9.4.3 Landscaping

Additional Control

1. The landscape interface treatment for the western Parcel, with the central riparian corridor to the east and Badgerys Creek corridor to the west, is to be designed in accordance with Figure 99.
2. For further landscape details on the western and central riparian corridor landscape designs, refer Section 8.4.1 and Section 8.4.2.

Figure 99 Landscape Plan - Western Parcel

Source: Site Image

9.5 Eastern Parcel

9.5.1 High-Bay Warehousing - Eastern Parcel

The purpose of this section is to provide high-bay warehousing built form and landscaping provisions within the Eastern Parcel of the Master Plan.

The eastern parcel of the site provides smaller lot configurations compared with the western parcel. Proposing a 52.5m height limit in this location would not only respond to potential market demand, but also respond to the Precinct Plan's objective to deliver employment diversity which leverages off the proximity to the new Western Sydney International Airport (WSI). High-bay warehousing developments differ from the conventional warehouse footprint requirements warehousing, where there is an opportunity to re-orientate buildings and divert noise source north-south and away from nearby residential areas to the east such as Rossmore and Kemps Creek.

High-bay warehousing may have the potential to provide greater acoustic screening to nearby residential areas Rossmore / Kemps Creek areas. The critical aspect of noise to these areas is external truck movements, loading/unloading activities (rear docked loading/unloading preferred) and mechanical plant. Mechanical plant can readily be mitigated by either selection, location and/or noise controls in form of plantrooms and other dedicated areas.

The indicative high-bay warehousing configuration is provided in the Indicative Massing Eastern Parcel plan in Figure 100 and is noted as Type 03.

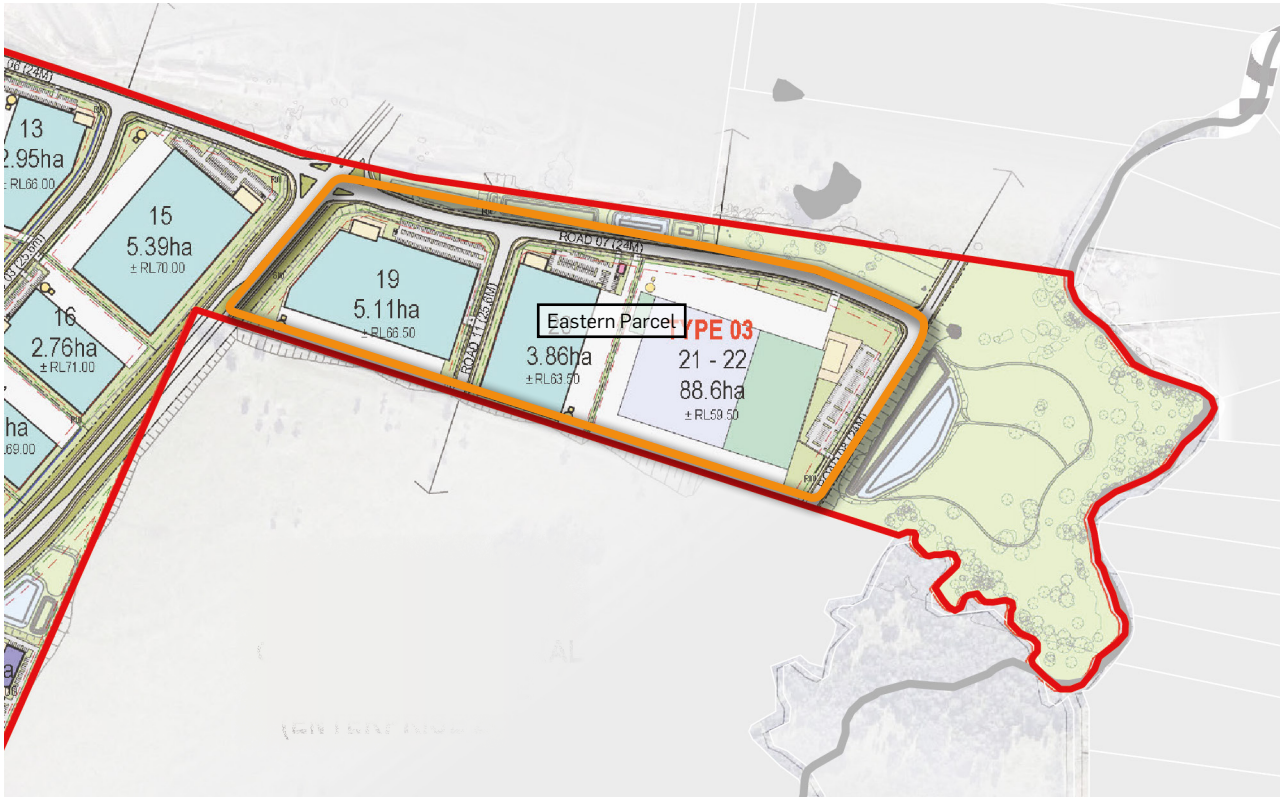


Figure 100 Indicative Massing Eastern Parcel
Source: SBA

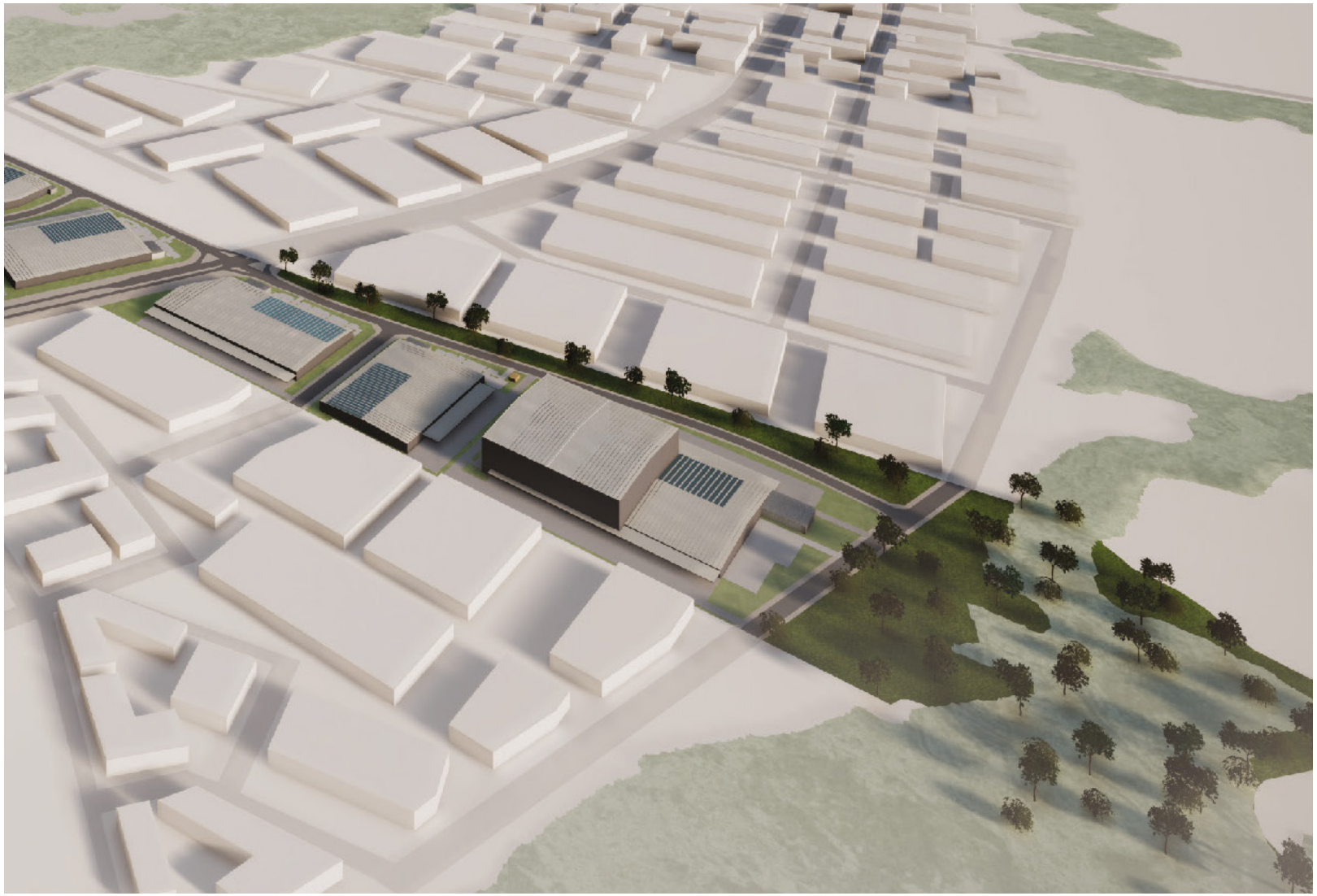
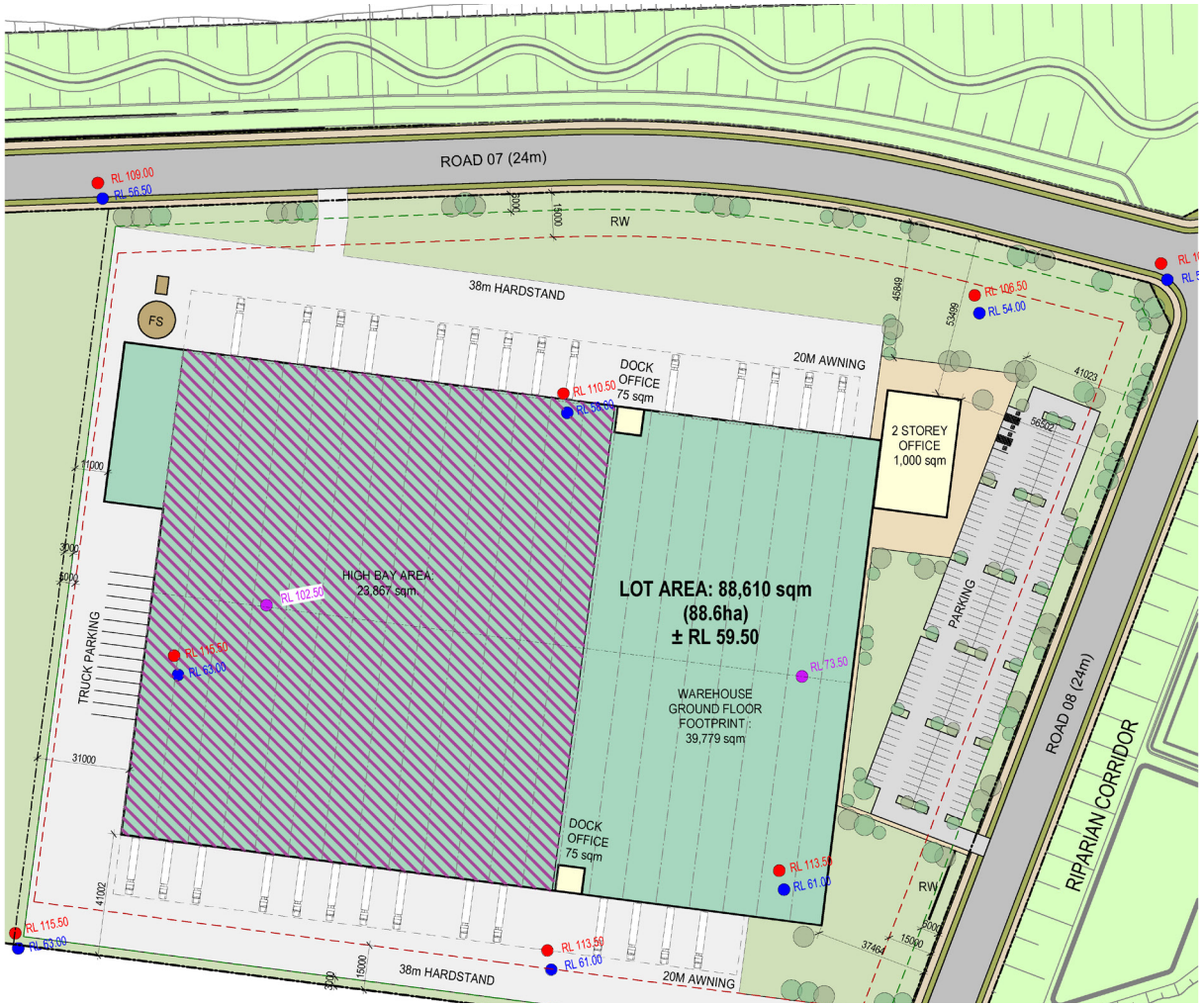


Figure 101 3D Visualization of Eastern Parcel
Source: SBA

9.5.2 Height

Additional Control

1. Development within the eastern parcel of the Master Plan is to comply with the height provisions of 52.5m set out in Height Control map in Figure 26.
2. High bay warehousing within the eastern parcel is to align with the built form parameters and height controls established in the indicative massing for high bay warehousing in Figure 102.
3. The portion of the high bay component over the warehouse ground floor footprint which can meet the maximum height provisions of 52.5m must not exceed 60% of the total warehouse footprint (see hatch area in Figure 102).



Legend

- Office/ Ancillary Office
- Landscape Area
- Street Landscape
- Hard Landscape/ Footpath
- Warehouse Ground Floor
- High Bay Area

Figure 102 Indicative Massing Eastern Parcel – High Bay Warehouse

Source: SBA

1:20,000 @ A4

0 200 400 600 800 1000

9.5.3 Landscaping

Additional Control

1. The landscape interface treatment for the Eastern Parcel, with the riparian street to the north and Wianamatta South Creek to the east, is to be designed in accordance with Figure 103.
2. For further landscape details on the eastern riparian corridor landscape designs, refer Section 8.4.3.

Legend

Site Boundary

Figure 103 Landscape Plan - Eastern Parcel

Source: Site Image

10

PUBLIC ART, SOCIAL AND COMMUNITY INFRASTRUCTURE

10.1 Social Infrastructure Indicative Locations

This section sets out alternative benchmark solutions of the DCP Section 6.1(PO1).

The provision of social and community infrastructure within the Badgerys Creek Road Master Plan has been informed by a Social Infrastructure Needs Assessment prepared by Urbis. The assessment consisted of quantitative benchmarking and consultation with government agencies and stakeholders which identified a series of social infrastructure and open space needs for the Badgerys Creek Road Master Plan.

Additional Control

1. Social and cultural infrastructure is to meet the requirements detailed in the Social Infrastructure Needs Assessment prepared as part of the IPG Master Plan.
2. The Master Plan is to deliver the following social infrastructure amenities set out in the Social Infrastructure Needs Assessment, which include:
   - Multi-purpose Community Centre within the Local Centre.
   - Opportunities for educational and industry training spaces within the multi-purpose community centre.
   - 1 long day care centre per 75 workers.
   - Private medical centre in the Local Centre
   - Outdoor multi-purpose sport courts in an activated location near the Local Centre.
   - Local Park
3. The Multi-purpose Community Centre within the Local Centre can include the provision for cultural infrastructure. The provision and design of cultural infrastructure is to be culturally responsive, through consultation with Dharug Traditional Custodians where required, and align with the four key themes identified in the IPG Connecting with Country Framework, which include Starting with Country, Cultural Landscape, Built Form and Language and Wayfinding.

4. The Multi-purpose Community Centre within the Local Centre must provide integrated space for gathering for the local community and local Aboriginal community groups.
5. Social and community infrastructure is to be delivered in the locations identified in accordance with Figure 104.
6. The outdoor multi-purpose sports courts must not impact on the ecological and environmental values of the vegetation cluster zoned ENZ Environment and Recreation.
7. The social infrastructure within the master plan will be delivered in accordance with the Staging Plan outlined in Figure 108 in Section 11 of this Master Plan. Open spaces and riparian corridors will be delivered in each of the seven stages and social infrastructure within the Local Centre will be developed in Stage 7.

Figure 104 Social Infrastructure Needs Indicative Locations
Source: Urbis

10.2 Public Art Strategy

This section sets out alternative benchmark solutions to those set out in the DCP in Section 2.19 for public art.

Alternative Benchmark Solution

1. Public art within the Master Plan is to be proposed in accordance with the Public Art Locations in Figure 105.
2. Public art typologies within the Master Plan are to be designed in accordance with the Public Art Typologies in Figure 106, the Public Art Storylines in Figure 107, and the Artform Typologies Site Application Guide in Table 19.
3. Public art within the Badgerys Creek Road Master Plan is to be delivered in accordance with the IPG Public Art Strategy artwork locations and art typologies.
4. Public art within the Badgerys Creek Road Master Plan adopts a precinct approach and is to be designed in accordance with the Public Art Storylines in the IPG Public Art Strategy. The storylines are suitably high level, providing a guideline for artwork connections through key corridors of the site. The proposed storylines are provided as a starting point and guideline for artists.

Legend

- Site Boundary
- Landmark Identity Artworks
- Local Centre and Community Hub Artworks
- Riparian Corridor Artworks
- Entry Artworks
- High-bay Areas
- Indigenous Artworks

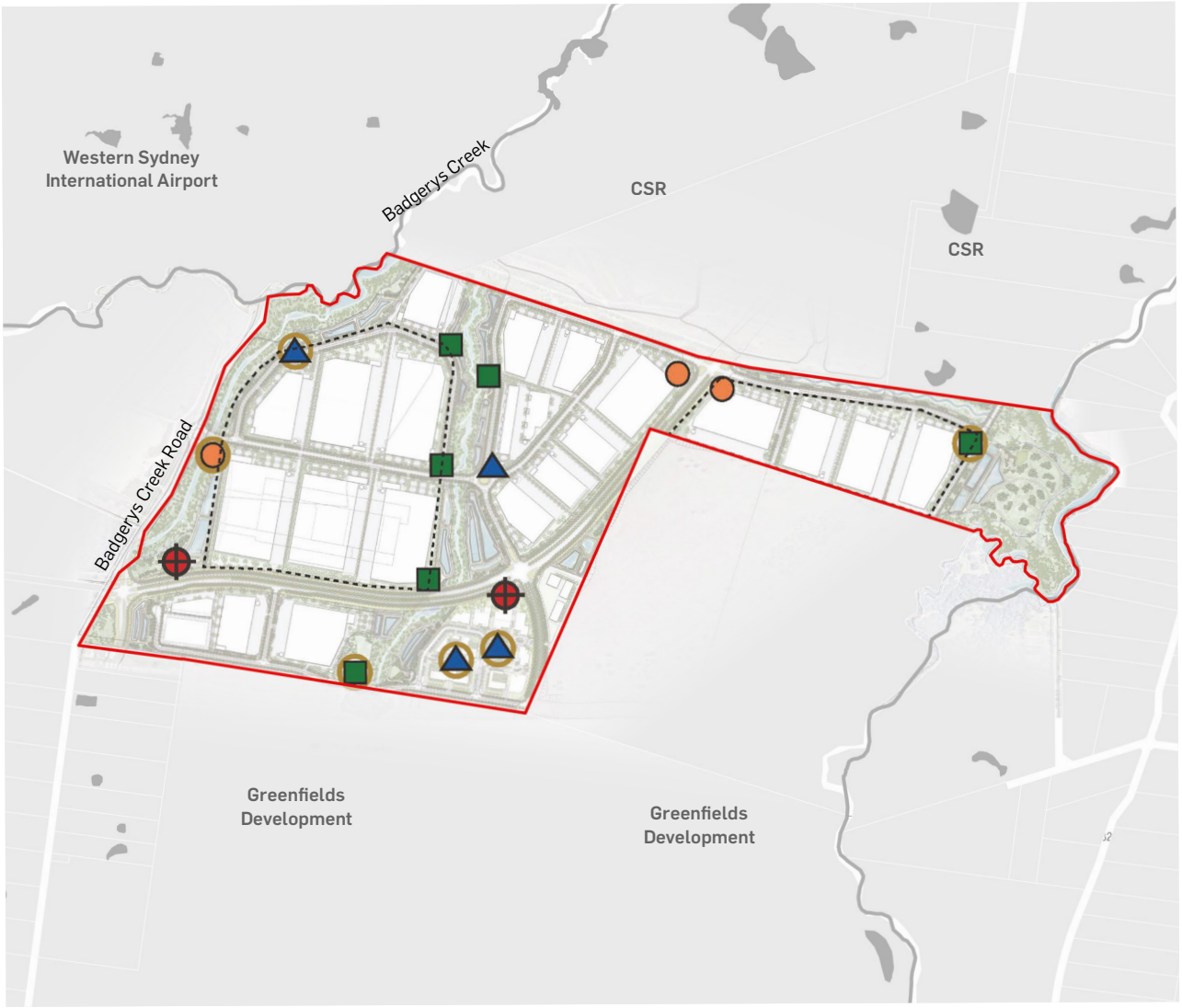
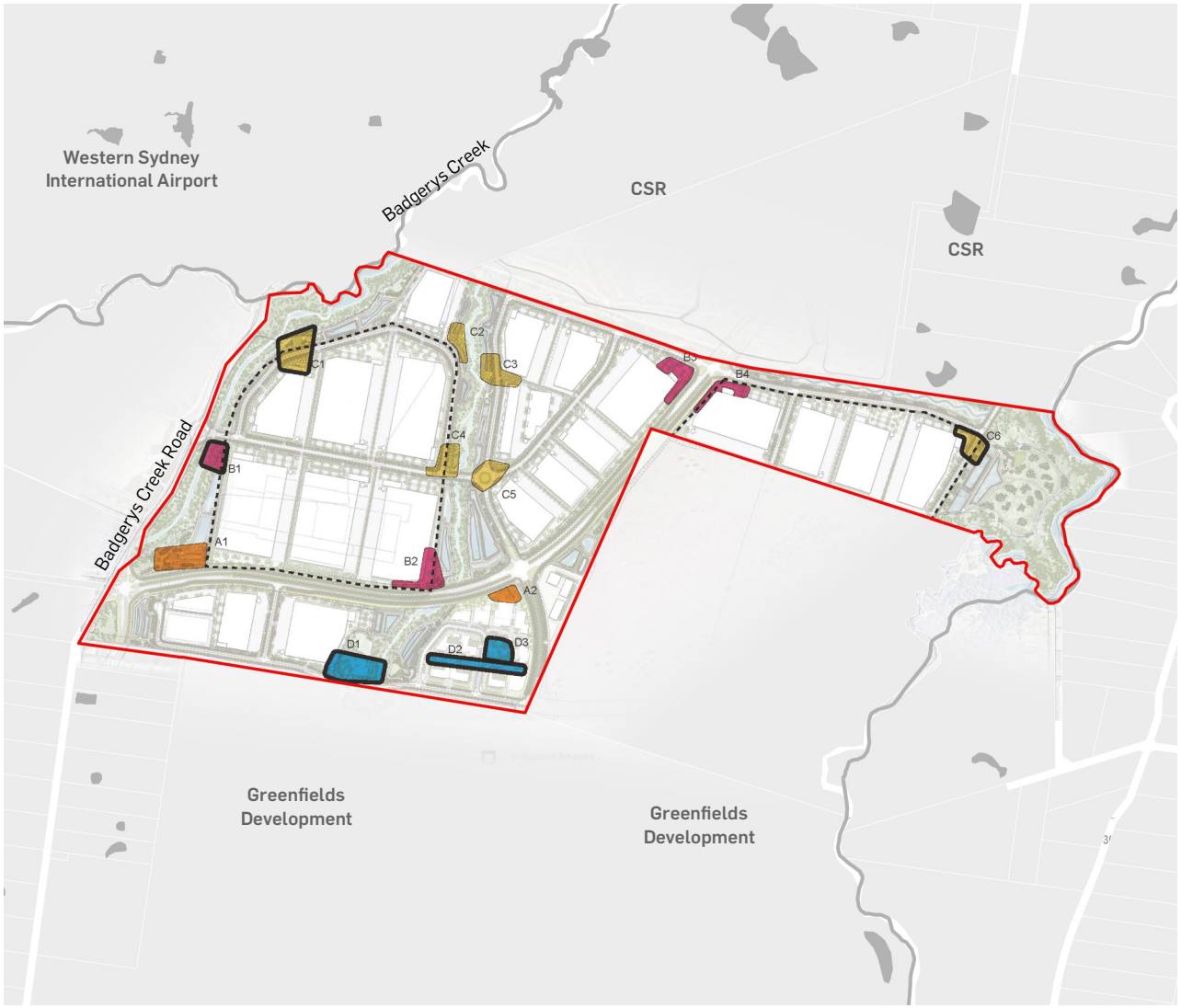


Figure 105 Public Art Locations
Source: Site Image



Legend

	Site Boundary
A	Gateway Artwork Zone
B	Large Scale Wayfinding Artwork Zone
C	Interpretive / Educational / Nature / Discovery Wayfinding Artwork Zone
D	Sensory / Interactive / Integrated Artwork Zone
	Indigenous Artworks
XX	Artwork Specific Reference Code
----	High-Bay Areas

Figure 106 Public Art Typologies

Source: Site Image

Legend

Site Boundary

Convergence of 3 Clans

- First Nations Spirituality and Heritage
- Connection with Country / Landscape Stewardship
- Living in Harmony with Seasonal Cycles

Connecting Waterways

- Role of water in the 6 traditional seasons
- Local and regional water journeys
- Water sensitive urban design / riparian water cleansing

Innovation and Creativity

- Future of Enterprise & Industry
- Social Responsibility
- Supporting Community

Civic Pride / Evolution of Cultures & Landscape

- Respect for Past / Informing our Future
- Celebrating Origins and Diversity
- Sustainability from various cultural background

Immersing in Nature

- Celebrating Ecology Transitions
- Subtlety & Sensitivity of Blomes
- Educating and Celebrating Nature

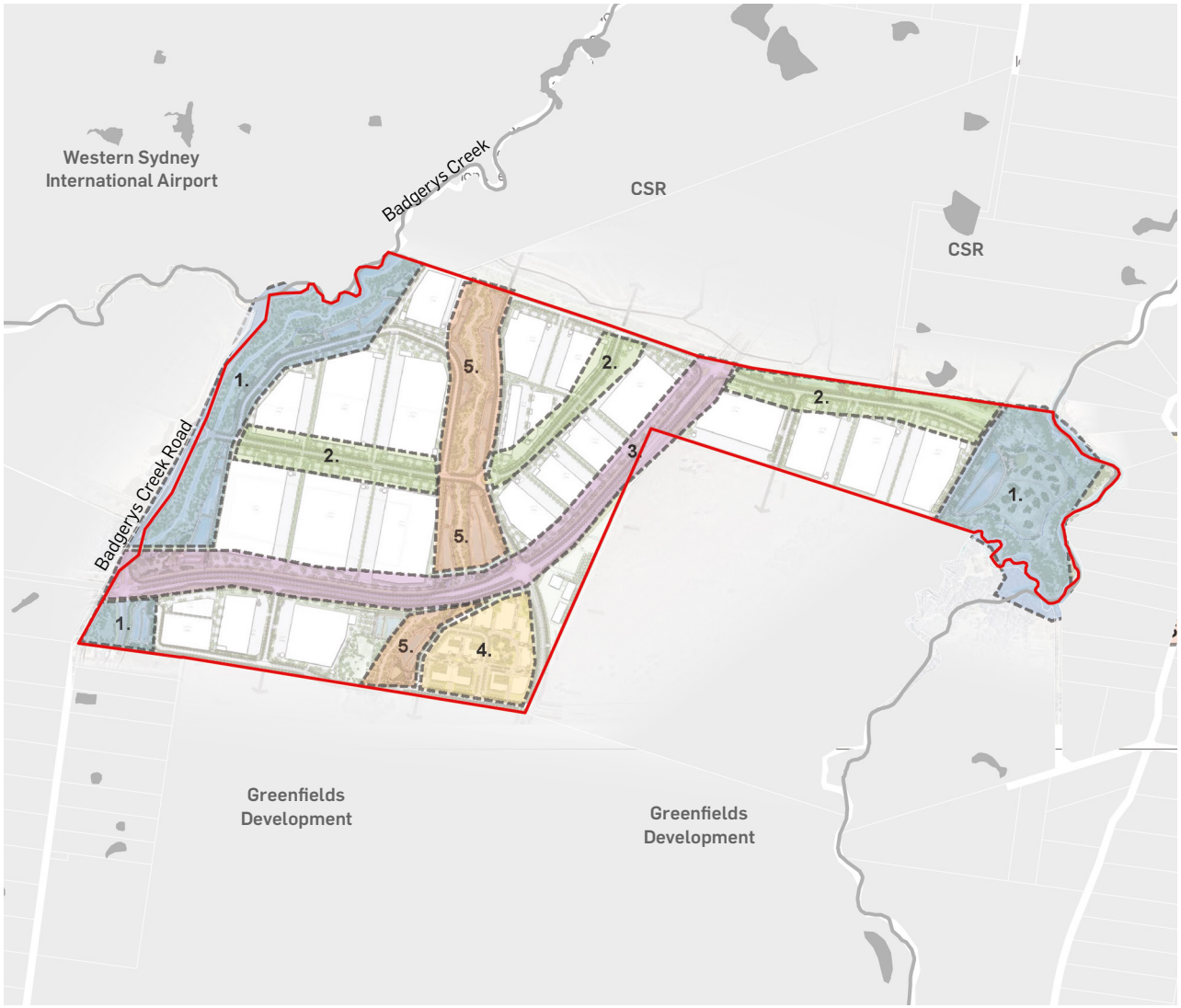


Figure 107 Public Art Storylines

Source: Site Image

Table 19 Artform Typologies Site Application Guide

Typology	Gateway Art	Large Scale Wayfinding	Environmental / Nature Art	Interpretive Art / Educational	Sensory / Interactive Installations	Discovery /Wayfinding Art	Integrated Art
Form	Large scale permanent installations	Large scale installations that can be seen from a distance, such as murals, series of beacons, large installations	Planting arrangements, landform, installations responding to or incorporating the elements, installations that play with light and shadow, installations that draw on nature	Information panels, plaques, installations and sculptures	Installations that evoke sensory experiences like touch and sound, Audio installations, textured materials, planting, light installations	Path inserts, markers, planting arrangements, series of installations and sculptures	Integrated into public domain amenities, cladding and housing to utilities and bins, furniture frames, play elements, canopies
Purpose	• Entry statement to the site • Identity, placemaking • Landmark / Beacon • Destination	• Large scale orientation • Identity / character • Landmark / Beacon at gateways within the site	• Connection with Country • Play on seasonal and climatic change • Appreciation of local conditions, geology, weather, seasons, flora and fauna	• Provides information about the site, country, natural systems, history, flora and fauna • Site appreciation and changes over time	• Enhances key areas • Provides atmosphere • Enhances and plays with human scale • Emphasises the micro climate • Fun / playful • Discovery	• Identify a journey / lead people through spaces • Discovery • Story telling • Fun / playful	• Create sense of place / character • Cohesion / Aesthetic language to site • Adds to character and materiality of the site
Position	• Junctions of visual corridors • Key nodes / intersections • Site entries and gateways	• Key building facades • Along active transport routes • On road infrastructure such as freeway edges and underpasses • On large paved areas	• Areas and individual planting • Natural places of significance / import • Paths and key routes	• Information plaques / panels / installations • At retained and restored site features • At key views to features within and beyond the site	• Open spaces / parks / plazas • Gathering spaces • Places of significance / import • Paths and key routes	• Along or in paths • Families of installations / series of elements	• Furniture - such as tables, chairs, benches • Signage suites • Play grounds elements • Bus stops • Shelters • Canopies and awning • Bush fire protection measures such as ember screens to car parks

Source: Site Image

10.3 Public Art Complying Development Requirements

This section sets complying development requirements and the trigger for public art delivery and the commencement of artworks design, development and installation requirements. The requirements relating to public art have been informed by the Public Art Strategy and the Social Impact Assessment (https://www.planningportal.nsw.gov.au/draftplans/made-and-finalised/ipg-badgerys-creek-road-master-plan).

For artworks to be delivered as part of the complying development they must satisfy the following:

Additional Control

1. The delivery of the public art on the site is to follow the staged delivery of the Master Plan in accordance with the Staging Plan in Figure 108.
2. For artworks located on Private Development Lots, the design and development of artworks will be triggered at the commencement of the concept design stage of that lot as indicated on Public Artwork Masterplan. Artworks are to be installed and completed prior to the award of OC (Occupation Certificate) for that Lot.
3. For artworks located in the Public Domain and in Riparian Corridors, the design and development of artworks will be triggered at the commencement of the concept design of any area that contains an artwork as indicated on Public Artwork Masterplan. Artworks are to be installed and completed prior to award of PC (Practical Completion) for that area of public domain or riparian corridor.
4. Artworks delivered within the Master Plan must be in accordance with the Public Art Concept DA Conditions (DA-28/2015 - https://www.planningportal.nsw.gov.au/draftplans/made-and-finalised/ipg-badgerys-creek-road-master-plan).
5. Artworks must be designed in accordance with this document, and in particular:
   - Be site specific and relate to the site themes
   - Relate to the storylines associated with its location
   - Meet the specific brief requirements
   - Ensure artworks are reflecting unique content on the site
   - Meet the performance requirements outlined in this document
   - Adhere to the codes and guidelines to which artworks must adhere
6. That artist engagement has been carried out in accordance with this document and relevant NSW policy:
   - Evidence that a fair and equitable process has been undertaken
   - That artists have been fairly paid for their submissions
   - That a valid contract is in place that outlines IP, contractual obligations.
7. Artwork designs have received concept approval from the Estate Public Art Consultant to ensure it achieves the following:
   - Ensure that art works have been developed in accordance with this document
   - Achieve design quality
   - Show Innovation
   - Ensure relevance and appropriateness of the work to the context of the site
   - Ensure that no artworks are commemorating or reflecting the same or similar event

- Ensure approval from relevant stakeholders and authorities if required and deaccessioning requirements /procedures
- That procedures and special requirements for indigenous artworks have been undertaken and recorded.

8. Detailed artwork designs have received detailed design approval from the Estate Public Art Consultant to ensure it achieves the following:
- That the developed design is in keeping with the concept design and design intent
- That the proposed artwork meets the design parameters outlined in this strategy achieving the minimum maintenance and durability requirements outlined
- Confirm detailed design / materials and fabrication process are in line with this strategy
- That a safety in design assessment has been carried out.
- That adequate and suitable engineering drawings have been prepared
- That a draft maintenance schedule and program is in place and has been approved by the development team
- Deaccessioning agreements are in place
- Ensure approval from relevant stakeholders, specialists and authorities if required
- Confirm Certifiers approval.

9. On completion of artworks that the following documents have been provided to the Estate Public Art Consultant and developer:
- Full structural and safety certification is to be provided by the specialist public art fabricator and their specialist consultants for safety and structural integrity of all elements
- A warranty as to workmanship finish and durability
- As-Built drawings and associated documents
- Final ongoing maintenance schedule
- Artist's certification certificate

11

STAGING AND INFRASTRUCTURE DELIVERY

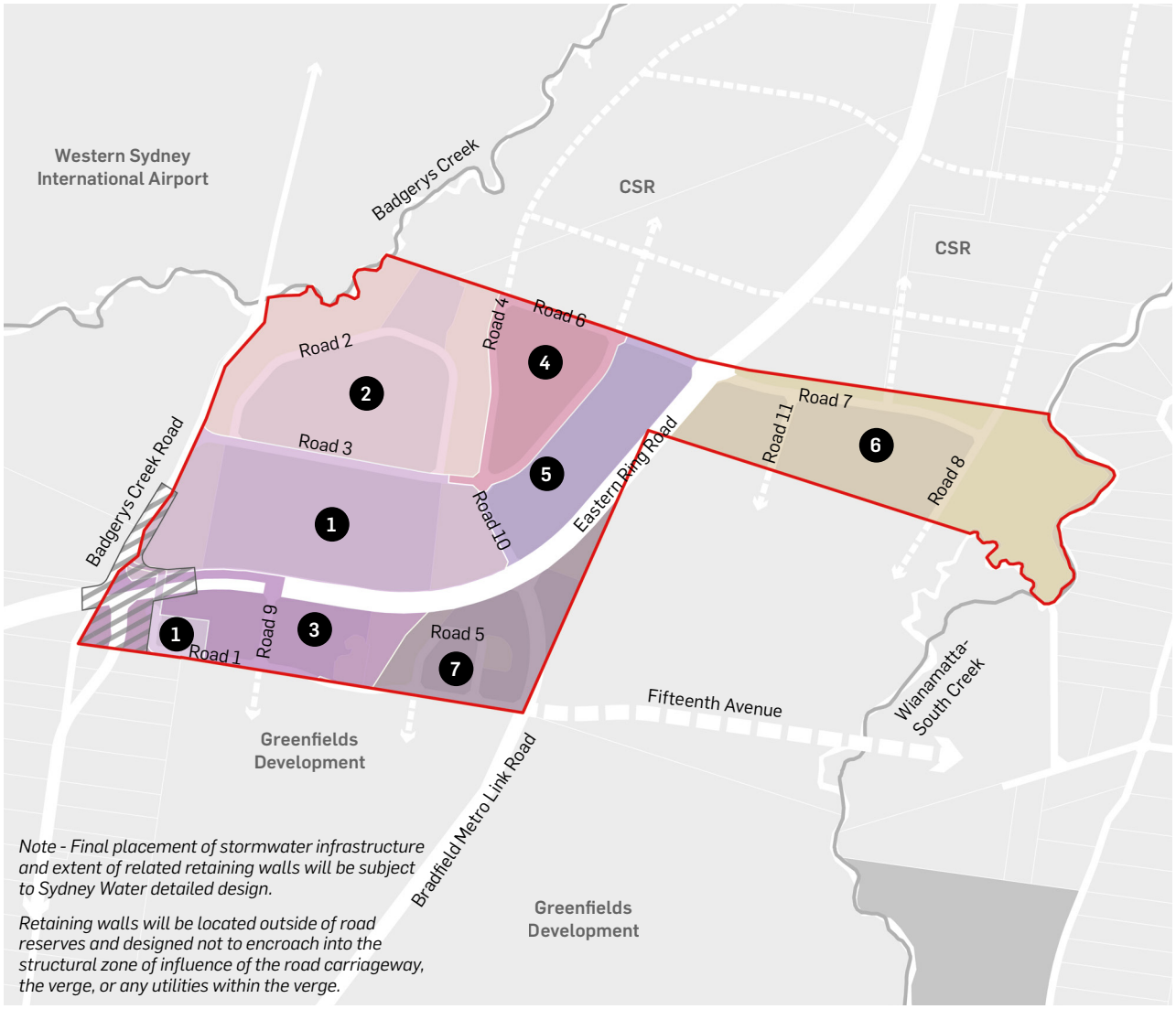
11.1 Staging Plan

The staging of the Master Plan has been informed by the planned delivery of road infrastructure to unlock parcels of land within the site. Development of the site will be staged from the west towards the east, incorporating the construction of the Eastern Ring Road, Bradfield Metro Link Road and Badgerys Creek Road intersection with the Eastern Ring Road.

The Wianamatta-South Creek corridor identified for stormwater infrastructure will be in private ownership until Stage 6 of the Master Plan. Land reservation acquisition required for stormwater infrastructure in this area with Sydney Water will be negotiated as part of Stage 6.

Additional Control

1. The development of the Master Plan is to be generally delivered in accordance the staging plan in Figure 108.
2. The delivery of land uses, social infrastructure, open space amenity and riparian corridors, as identified in the Structure Plan in Figure 5, is to be progressively delivered in accordance with the staging plan in Figure 108.
3. The Local Centre within the Master Plan will be delivered in Stage 7, as illustrated in Figure 108.



Legend

- Site Boundary
- Stage 1
- Stage 2
- Stage 3
- Stage 4
- Stage 5
- Stage 6
- Stage 7
- Proposed Intersection to be Investigated

Figure 108 Staging Plan

Source: Urbis

11.2 Infrastructure and Utility Delivery

The infrastructure and utilities have been designed to support the future employment focused development of the site. The design proposes water, sewer, gas, electricity, and telecommunications services to the site, mainly along the arterial, collector and local industrial roads as well as riparian corridors. Existing utilities along Badgerys Creek Road will be retained depending on the capacity and staged demand. Figure 109, 109a-g, provide a breakdown of the staged delivery of infrastructure and utilities within the Master Plan.

Legend

- Site Boundary
- Potable Water Services
- Sydney Water Trunk Gravity Main
- Sewage Services
- Temporary Sewer IOP for Stage 1&2
- Gas Services
- Telecommunication Services
- Electrical Services
- Zone Substation
- # Stage Number
- Staging Boundaries

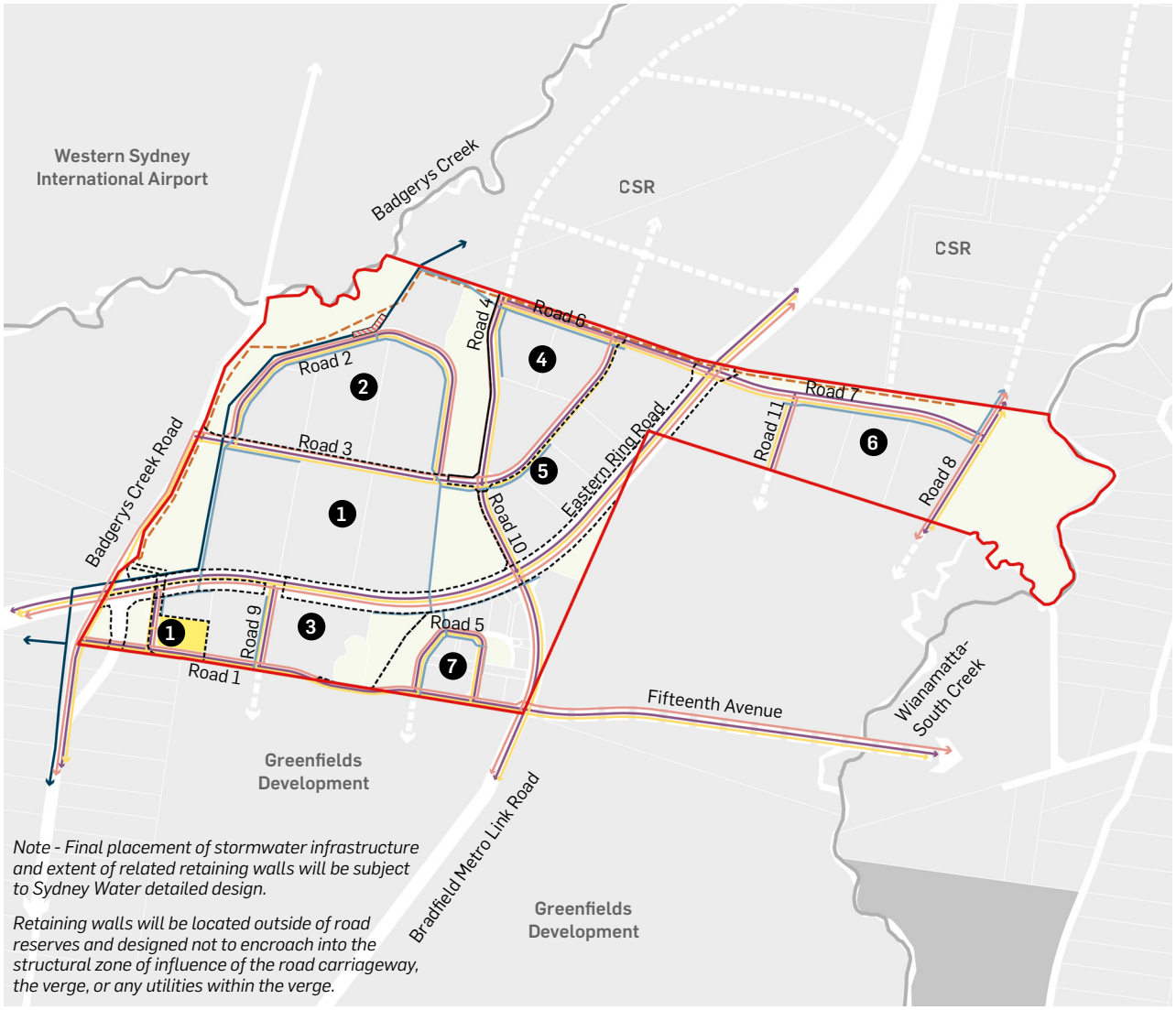


Figure 109 Infrastructure and Utilities Plan
Source: Urbis

Stage 1

Figure 109a Infrastructure and Utilities Plan - Staged Delivery Plan (Stage 1)

Stage 2

Figure 109b Infrastructure and Utilities Plan - Staged Delivery Plan (Stage 2)

Legend

- Site Boundary
- Active Transport
- Collector Road
- Local Road
- Stormwater Basin
- Open Space
- Proposed Sewer Main
- Existing Water Main
- Proposed Water Main
- Zone Substation
- Electrical Feeder

Source: IDC

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Stage 3

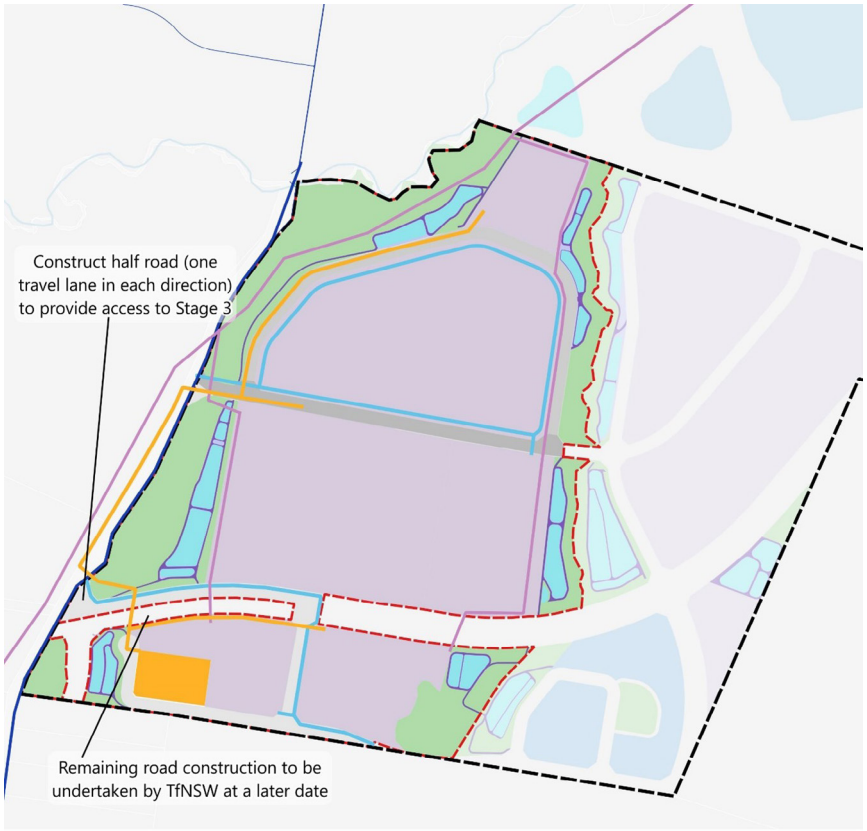

Figure 109c Infrastructure and Utilities Plan - Staged Delivery Plan (Stage 3)

Stage 4

Figure 109d Infrastructure and Utilities Plan - Staged Delivery Plan (Stage 4)

Legend

- Site Boundary
- Active Transport
- Collector Road
- Local Road
- Stormwater Basin
- Open Space
- Proposed Sewer Main
- Existing Water Main
- Proposed Water Main
- Zone Substation
- Electrical Feeder

Source: IDC

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Stage 5

Figure 109e Infrastructure and Utilities Plan - Staged Delivery Plan (Stage 5)

Stage 6

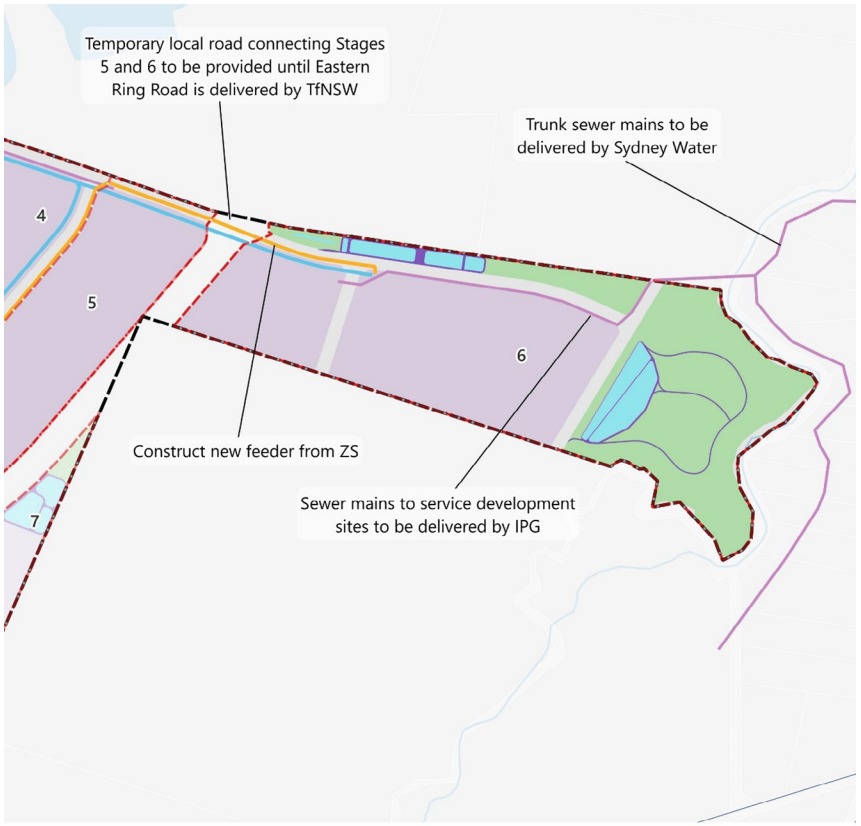

Figure 109f Infrastructure and Utilities Plan - Staged Delivery Plan (Stage 6)

Legend

- Site Boundary
- Active Transport
- Collector Road
- Local Road
- Stormwater Basin
- Open Space
- Proposed Sewer Main
- Existing Water Main
- Proposed Water Main
- Zone Substation
- Electrical Feeder

Source: IDC

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Stage 7

Figure 109g Infrastructure and Utilities Plan - Staged Delivery Plan (Stage 7)

Legend

- Site Boundary
- Active Transport
- Collector Road
- Local Road
- Stormwater Basin
- Open Space
- Proposed Sewer Main
- Existing Water Main
- Proposed Water Main
- Zone Substation
- Electrical Feeder

Source: IDC

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12

DEVELOPMENT PATHWAYS

Section 4.41 of the WPC SEPP sets out that a Master Plan must specify the particular development that may be carried out as complying development on the land to which the Master Plan applies and contain development controls for the complying development. Within this Master Plan, the exempt and complying development provisions proposed under Part 4.6 of the WPC SEPP, are provided in Section 12.1.1 and Section 12.1.2 below.

The provisions in Sections 12.1.1 and 12.1.2 below, are in addition to any development which is identified as complying development under any environmental planning instrument which applies to the Master Plan site.

Specified development and development standards for complying development within the Master Plan are detailed in Section 13 of this Master Plan.

There is a requirement for future development under the Code to be consistent with the Approved Master Plan WSA_MP01 where works are specified within the Master Plan.

It is also acknowledged that the Clauses 4.44 & 4.45 of the WPC SEPP requires that;

(1) 'An application for an Aerotropolis certificate for proposed development on land to which this Chapter applies may be made to the Planning Secretary... '

and

(3) 'The Planning Secretary must not issue an Aerotropolis certificate unless— (a) there is a master plan that applies to the land on which the development is to be carried out, and (b) the Planning Secretary is satisfied that the development is consistent with the master plan.'

This has the requirement of necessitating that future development undertaken at the site is to be consistent with the Master Plan and gives the Planning Secretary a final position in determining future development across the site following the endorsement of the Master Plan.

12.1 Exempt Development

The Exempt Development Code for the site will be contained within site-specific provisions under the WPC SEPP which will enable new very low impact development to be progressed in a streamlined manner. These are as follows:

- Bollards
- Demolition
- Driveways
- Emergency Works
- Flagpoles
- Investigations
- Maintenance and repair
- Paving
- Pedestrian ramps, paths and stairways
- Pre-loading works
- Scaffolding
- Sculptures and artwork
- Security and monitoring cameras
- Signage maintenance
- Switch rooms and security booths.
- Truck Weighbridge
- Vegetation management
- Wash bays; and
- Water tanks.

12.2 Complying Development

The various forms of development that are proposed to be undertaken through complying development are contained within the proposed Complying Development Code. These include the following:

- Use of a premises
- New buildings and additions
- Awnings and canopies
- Subdivision
- Earthworks
- Retaining walls
- Public domain and landscaping
- Artwork and sculptures
- Local roads and road infrastructure
- External lighting
- Local stormwater works
- Other Subdivision Code
- Tree and vegetation management
- Temporary roads
- Signage

Figure 110 illustrates the potential planning pathways for development across the site, including development that is proposed as complying development. Where the CDC parameters are not met, then a DA or SSDA would be required. Furthermore, there will be types of development across the site that can be progress under Part 5 of the Act, such as some road works (by or on behalf of TfNSW) and Stormwater (by or on behalf of Sydney Water).

12.3 Complying Development Pre-Lodgement Requirements

Pre-lodgement Process

Applications for Complying development under this Master Plan must:

- Be in an approved form identified under Part 6 Division 1 of the *Environmental Planning and Assessment Regulation 2021*.
- Contain relevant plans and drawings of the proposed development.
- Demonstrate that the development meets the relevant general requirements and development standards for the proposed development.
- Contain any required responses from referral, concurrence or Commonwealth bodies triggered by the development.
- Be accompanied by a relevant Aerotropolis Certificate in connection with the proposed development under Part 4.7, Division 3 of the *State Environmental Planning Policy (Precincts—Western Parkland City) 2021*.

12.4 Complying Development Post-Approval Conditions

The Complying Development Code includes various standard conditions of approval. The Condition identified in Section 18.1.7 of the Complying Development Code refers to two documents the Site Wide Construction Environmental Management Plan prepared by SLR and the Biodiversity Management Plan prepared by Ecological Australia.

These documents can be found at the following locations:

- Site Wide Construction Environmental Management Plan - https://www.planningportal.nsw.gov.au/draftplans/made-and-finalised/ipg-badgerys-creek-road-master-plan.
- Biodiversity Management Plan - https://www.planningportal.nsw.gov.au/draftplans/made-and-finalised/ipg-badgerys-creek-road-master-plan.

12.5 Referrals and Concurrences

Through the TAP process, it has been identified that relevant referrals and concurrences will still be required and can be achieved through the process ahead of the issue of a Complying Development Certificate. The detail of the likely referrals and concurrences are set out in the following sections of this Report, and will be applicable only as they related to the development as proposed and are captured by the wording of the relevant environmental planning instruments.

Referrals

Under the State Environmental Planning Policy (Transport and Infrastructure) 2021

- Section 2.118 - Development on a proposed classified road
- Section 2.119 - Development with a frontage to a classified road
- Section 2.120 - Impact of road noise or vibration to no-road development
- Section 2.121 - Excavation in or immediately adjacent to corridors
- Section 2.122 - Traffic generating development referral to TfNSW.
- Section 4.7 - Development in future infrastructure corridors for previously permitted use of land.
- Section 4.9 – Excavation in, above, below or adjacent to future infrastructure corridors.

Under the State Environmental Planning Policy (Industry and Employment) 2021

- Section 2.34 – Development of land within or adjacent to transport investigation areas
- Section 3.16 – Advertisement greater than 20sqm and within 250m of, and visible from, a classified road. Under State Environmental Planning Policy (Precincts - Western Parkland City 2021)

Under the State Environmental Planning Policy (Precincts – Western Parkland City) 2021

- Part 4.3 - Written confirmation from the relevant Commonwealth Aviation Body where required for lighting or development on wind shear affected land.
- Part 4.27 - Development adjacent to road corridors within 25m and penetrates the ground 2m or more below ground level.

It is expected that where the complying development proposal triggers the requirement for these referrals pursuant to the SEPPs listed above, that the relevant referral must be obtained prior to issue of a Complying Development Certificate.

Concurrences

Other matters to be considered by the developer ahead of construction includes the following matters under other separate legislation, where concurrences may be required and would be obtained at a relevant juncture:

- Environmental Protection Licence from EPA (for road construction under the Protection of the Environment Operations Act 1977 (Schedule 1)
- On-site effluent disposal system if development is undertaken on unsewered land (if required by Local Government Act 1993).
- On-site stormwater drainage systems (if required by Local Government Act 1993).
- Written consent from relevant roads authority (if required under Section 138 of Roads Act 1993) for building of any kerb, crossover of driveway, or as part of Sections 61 (work on certain classified roads), 87 (traffic control facilities) or 125 (approval to use road for food or drink premises) where relevant.
- Any requirement for a Controlled Activity Approval where works are within 40m of a waterfront (under Water Management Act 2000).

Where required, the above matters can be dealt with ahead of issue of a Complying Development Certificate in circumstances where the development would meet all other relevant criteria for complying development. It is therefore proposed that complying development can occur at the site where referrals or concurrences are required to be obtained under other legislation.

It is noted that the IPG land is not affected by any heritage items or overlays, is not in proximity to a railway line and is not within a mine subsidence district. As such, any concurrence or referral requirements relating to those matters should not arise.

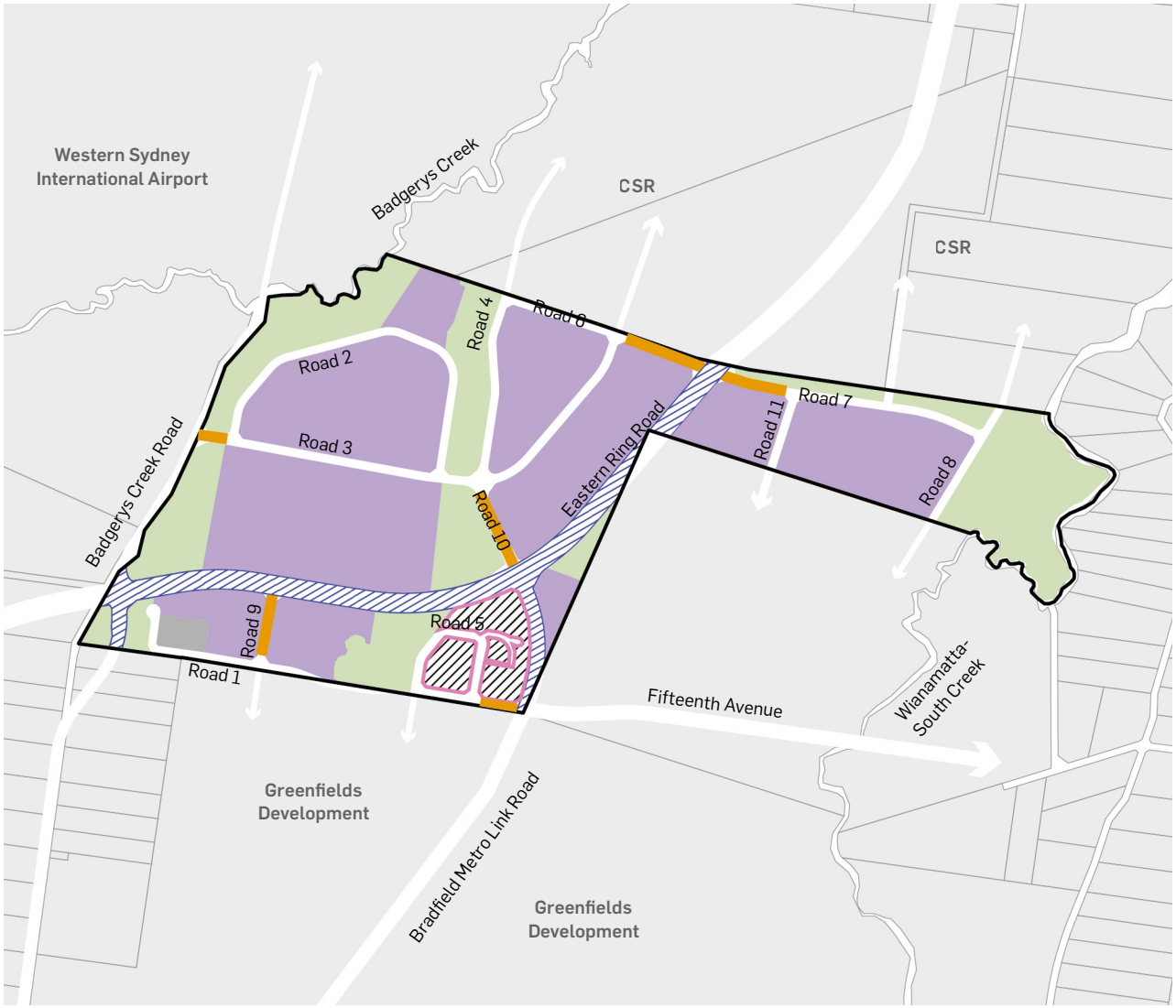

Figure 110 IPG Badgerys Creek Road Master Plan Planning Pathway Plan

Source: Urbis

The certifying authority for the indicative planning pathway plan above is provided in Table 20 below, which corresponds to Figure 110 Planning Pathway Plan.

Table 20 Planning Pathway – Consent Authority

Planning Pathway	Certifying Authority
(1) On-Lot Development Pathway - Complying Development (should the development meet the standards)	Certifier
Pathway - Development Application	Liverpool City Council, Sydney Western City Planning Panel or Minister for Planning and Public Spaces in accordance with the Planning Systems SEPP.
(2) Main Roads Pathway - Part 5 Approval	Transport for NSW
(3) Open Space Pathway - Complying Development, Development Application or Part 5 Approval	Certifier (Complying Development) Liverpool City Council, Sydney Western City Planning Panel or Minister for Planning and Public Spaces in accordance with the Planning Systems SEPP (DA) Part 5 of the EP&A Act for Stormwater Infrastructure
(4) Local Centre (building height less than 48m) Pathway - Complying Development, Development Application	Certifier (Complying Development) Liverpool City Council, Sydney Western City Planning Panel or Minister for Planning and Public Spaces in accordance with the Planning Systems SEPP (DA)
(4) Local Centre (building height greater than 48m) Pathway - Development Application	Liverpool City Council or Sydney Western City Planning Panel
(5) Zone Substation Pathway - Part 5 Approval	Endeavour Energy

Figure 111 illustrates the complying development process within in flow chart form. This sets out the various steps in the complying development process that will need to be followed.

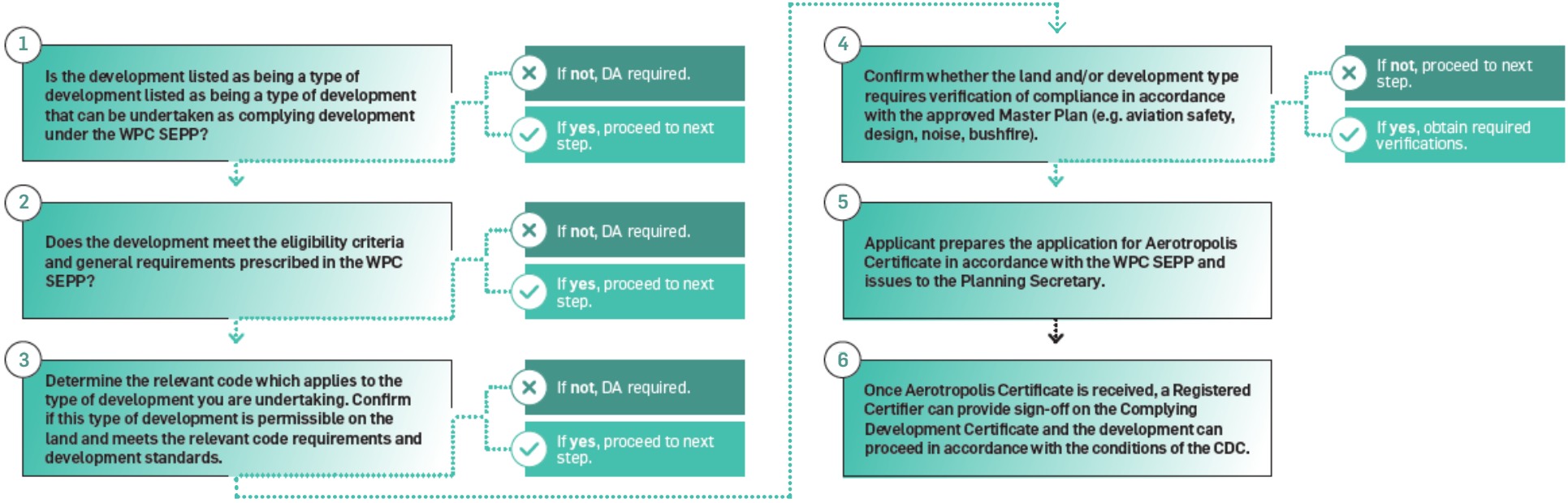

Figure 111 Complying Development Process
Source: Urbis

13

COMPLYING DEVELOPMENT CODE

This section of the Master Plan contains the Complying Development Code for the Badgerys Creek Master Plan to inform all development on land that is eligble for a complying development pathway and is seeking approval through the Complying Development Pathway.

The Complying Development Code is supported by maps in Appendix A and supporting information in Appendix B.

This section is to be read in conjunction with the Design Quality Strategy in Section 14 and the Design Verification Checklist in Appendix C.

13.1 Introduction

This IPG Master Plan Complying Development Code is provided by Urbis on behalf of Ingham Property Group (IPG), in connection with their landholding at 475 Badgerys Creek Road, Bradfield, NSW 2555 (the site). The site is legally defined as Lots 99 and 100 in DP 1287207. Lot 99 comprises of the zone substation and Lot 100 comprises of the remainder of the site.

This document has been prepared to accompany the IPG Master Plan, which is progressed pursuant to Division 2, Clause 4.41 of the State Environmental Planning Policy (Precincts – Western Parkland City) 2021 (WPC SEPP).

13.1.1 Aim of IPG Complying Development Code

This IPG Master Plan Complying Development Code (IPG Complying Development Code) aims to streamline the delivery of future development at the site through efficient approval pathways established through a site-specific master planning process, including identifying:

a. land which is eligible for a complying development pathway based on a detailed assessment of its suitability and potential for environmental impacts, and
b. complying development types that may be carried out in accordance with a complying development certificate as defined in the Act.

13.1.2 IPG Complying Development Code Content

The IPG Complying Development Code contains the following sections:

- Section 13.2 outlines the general requirements for complying development at the site.
- Section 13.3-17 contains the various categories of complying development proposed within the IPG Complying Development Code including the specified development and the relevant development standards. This includes the following:
  - Use of Premises Code
  - New Buildings and Additions Code
  - Awnings and Canopies Code
  - Subdivision Code
  - Earthworks Code
  - Retaining Walls Code
  - Public Domain and Landscaping Code
  - Artwork and Sculptures Code
  - Local Roads and Infrastructure Code
  - External Lighting Code
  - Local Stormwater Works Code
  - Other Subdivision Code
  - Tree and Vegetation Management Code
  - Temporary Public Roads, Construction and Haul Roads and Ancillary Works
  - Signage Code
- Section 13.18 – Contains standard conditions that would apply to all complying development.

13.1.3 Interpretation

Act means the Environmental Planning and Assessment Act 1979

AHCVV means additional high conservation value vegetation identified on the Land Constraints Map which accompanies this Code (Master Plan Appendix A - Map 2).

Appropriate Fill –

a. Virgin excavated natural material within the meaning of the Protection of the Environment Operations Act 1997, Schedule 1, or
b. Fill that is re-used in accordance with an excavated natural material exemption under the Protection of the Environment Operations (Waste) Regulation 2014, Part 9.

APZ means asset protection zone, which is a fuel-reduced area surrounding a building or structure. It is located between the building or structure and the bush fire hazard.

BCA means the Building Code of Australia

Code means this IPG Complying Development Code prepared in association with the IPG Master Plan

Codes SEPP means the State Environmental Planning Policy (Exempt and Complying Development Codes) 2008

Design Quality Strategy means the Design Quality Strategy prepared by Urbis which is contained at Section 14 of the Master Plan Report

DCP means the Western Sydney Aerotropolis Development Control Plan 2022

Enterprise and Industry Locations means land which is identified for Enterprise and Industry in the Land Use Plan (Master Plan Appendix – Map 6).

GFA means Gross Floor Area

High Bay Warehousing means warehousing and distribution premises that have a height between 24m – 52.5m

Land Application Map means the Land Application Map contained at Appendix A of the Master Plan (Map 1).

Local Centre means land which is identified in the Master Plan as Local Centre on the Land Use Plan (Master Plan Appendix A – Map 6)

Noise sensitive development - means development for the following purposes:

- centre-based child-care facilities
- educational establishments
- exhibition homes
- exhibition villages
- funeral homes
- hospitals
- information and education facilities
- places of public worship
- residential accommodation
- respite day care centres; and
- school-based child-care (other than in an existing school).

PBP means Planning for Bush Fire Protection 2019

Road Infrastructure includes pavements, pedestrian crossings, shared paths, active transport routes and lanes, ramps, structures, bridges and culverts.

Regulation means the Environmental Planning and Assessment Regulation 2021

Relevant Commonwealth Body has the same meaning as under the State Environmental Planning Policy (Precincts—Western Parkland City) 2021

SEPP means any State Environmental Planning Policy

Site means the landholding at 475 Badgerys Creek Road, Bradfield, NSW 2555. The site is legally defined as Lots 99 and 100 in DP 1287207.

Setback means the horizontal distance between the relevant boundary of the lot and the building line

TfNSW means Transport for NSW

The Master Plan means IPG Master Plan WSA_MP01 prepared for the IPG Site at 475 Badgerys Creek Road.

TMAP means a Transport Management and Accessibility Plan

13.2 Complying Development

This section sets out the proposed IPG Complying Development Code, referred to as 'this Code'.

13.2.1 What Development is Complying Development

1. Development is complying development for the purposes of this Code if the development:
   a. Is specified in this Code, and
   b. Meets the standards specified for the development in this Code, and
   c. Complies with the requirements for complying development in this Code, and
   d. Is consistent with an approved Master Plan for the site under the State Environmental Planning Policy (Precincts – Western Parkland City) 2021.

2. This Code does not restrict or prohibit the carrying out of development on land to which this Code applies that is permitted to be carried out with or without development consent, or that is exempt or complying development under another environmental planning instrument.

13.2.2 General Requirements for Complying Development

1. To be complying development under this Code, the development must:
   a. Be specified in a master plan as complying development, and
   b. Be consistent with the master plan, and
   c. Meet the relevant provisions of the Building Code of Australia, and
   d. Not be carried out on land on which a heritage item or Aboriginal object is located or that is within a heritage conservation area or Aboriginal place of heritage significance, and
   e. Not be for the purpose of remediation work within the meaning of State Environmental Planning Policy No 55—Remediation of Land, and
   f. Not be exempt development under the State Environmental Planning Policy (Precincts—Western Parkland City) 2021, and
   g. Be located on land identified on the Map 1 - Land Application Map included at Appendix A of the Master Plan, and
   h. Be permissible with development consent under an environmental planning instrument applying to the land on which the development is carried out, and
   i. Meet the relevant provisions of the Building Code of Australia, and
   j. Not involve works that require an Environment Protection Licence (EPL) within the meaning of the Protection of the Environment Operations Act 1997, unless:
      – The Environment Protection Agency has issued an EPL for road construction activities under Schedule 1, Section 35 of the Protection of the Environment Operations Act 1997; and
   k. Not be designated development (as defined in Part 1, Section 7 of the Environmental Planning and Assessment Regulation 2021), and
   l. Not be potentially hazardous industry or potentially offensive industry, within the meaning of the State Environmental Planning Policy (Resilience and Hazards) 2021, Chapter 3; and
   m. Not for the purpose of remediation work within the meaning of State Environmental Planning Policy (Resilience and Hazards) 2021.

2. A complying development certificate for complying development under this Code is subject to the conditions specified in this Code in respect of that development.

3. Where new gross floor area is being developed through complying development under this Code, the certifying authority is to be provided with evidence of the cumulative GFA calculation that has been approved at the site to ensure compliance with Section 7.4.13 of the Master Plan.

4. Any removal of trees on site permitted under this Code shall comply with Section 13.15 and only be carried out in connection with development carried out under this Code.

5. Where required for airport safeguarding under Part 4.3 of the State Environmental Planning Policy (Precincts – Western Parkland City) 2021, evidence that the relevant Commonwealth body is satisfied that the development addresses the airport safeguards is to be provided to the certifying authority, for matters that involve building windshear (WPC SEPP Section 4.18) wildlife hazards, (WPC SEPP Section 4.19), lighting (WPC SEPP Section 4.21) and airspace operations (WPC SEPP Section 4.22). This process requires:
    a. statement by a suitably qualified aviation safeguarding consultant is to be prepared which demonstrates compliance with the relevant section in Part 4.3 of the State Environmental Planning Policy (Precincts – Western Parkland City) 2021; and
    b. a copy of the statement referred to in (a) is to be referred to the relevant Commonwealth body, and
    c. an application for a Complying Development Certificate under Part 4.7 Division 3 of State Environmental Planning Policy (Precincts—Western Parkland City) 2021 is to be accompanied by a written response from the relevant Commonwealth body stating that it does not object to the proposed development. Have obtained an Aerotropolis Certificate in accordance with the provisions listed in Part 4.7 Division 3 of State Environmental Planning Policy (Precincts—Western Parkland City) 2021.
6. Have obtained any required concurrence or referral responses from other agencies or approval bodies in accordance with Section 12.5 of the Master Plan.
7. Have obtained a controlled activity approval under the Airports Act 1996 and the Airports (Protection of Airspace) Regulations 1996, where a temporary crane or moveable plant or equipment is proposed under Section 4.6 of this Code that breaches the prescribed airspace.
8. A Design Verification Report must be prepared by a Registered Architect to verify that the appropriate Design Quality Review Process has been undertaken, as set out at Section 14.2 of the Master Plan, along with the relevant development thresholds and responsible parties as outlined Table 23 of the Master Plan has been complied with for all new building constructed under Section 13.4 of the Code. The Design Verification Report must be provided to the certifying authority prior to approval.
9. Stormwater modelling for complying development must be prepared by a engineers on Sydney Water's register for Aerotropolis and Mamre Road Approved Stormwater Consultants and approved on the Hydrologic, hydraulic modelling, assessment, and drainage design and the Waterways and WSUD design categories on Sydney Water's Western Sydney Stormwater Designers List.

13.2.3 Land on Which Complying Development may not be carried out

1. Complying development may not be carried out on land highlighted as being constrained on the Map 2 - Land Constraints Map (See Appendix A to the Master Plan), unless otherwise specified in this Section. This includes the following land:

a. Flood prone land (1 in 100 AEP) (Note: see 2.3.1 below); or

b. High Biodiversity Value Areas and Additional High Conservation Value Vegetation (AHCVV); or

c. Stormwater Infrastructure (Note see 2.3.2 below).

2. Other land where complying development under this Code must not be carried out includes:

a. Land within a heritage conservation area or a draft heritage conservation area, or

b. Land identified on an Acid Sulfate Soils Map as being Class 1 or Class 2, or

c. Significantly contaminated land, or

d. Land that is zoned Environment and Recreation (ENZ) in the State Environmental Planning Policy (Precincts—Western Parkland City) 2021.

13.2.3.1 Flood Prone Land

1. Development for the purposes of enterprise and industry buildings and commercial premises will be prohibited on the 1 in 100 year AEP flood extent at the site (identified on Map 2 - Land Constraints Map as identified at Appendix A of the Master Plan).

2. However, despite provision in 13.2.3.1 above, it is proposed that on land within the flood extent or other land that is below the flood planning level (as per the WPC SEPP definition at Section 13.4.24), specific development is permitted under this Code on this land, but comprises only the following development:

a. Subdivision (under Section 13.6 of this Code)

b. Public park or reserve, landscaping and environmental facilities (under Section 13.9 of this Code)

c. Local roads and road infrastructure (under Section 13.11 of this Code)

d. Water and stormwater management such as flooding and stormwater works, including on-site detention structures, swales, water sensitive urban design structures, gross pollutant traps and trunk drainage pipes (under Section 13.13 of this Code)

e. Vegetation management and environmental protection works (under Section 13.15 of this Code).

3. Where any of the above development is proposed within the area identified on the Map 2 - Land Constraints Map as being within the area of flood extent or is upon land that is below the flood planning level, a statement from a professional engineer who specialises in hydraulic engineering must be provided to the certifying authority identifying that the proposal:

a. Is compatible with the flood hazard of the land, taking into account projected changes as a result of climate change, and

b. Is not likely to significantly adversely affect flood behaviour resulting in detrimental increases in the potential flood affectation of other development or properties.

13.2.3.2 Stormwater Infrastructure

1. Despite the provisions in 13.2.3.1 above, the following development can occur as complying development on land identified as Stormwater Infrastructure on the Map 2 - Land Constraints Map:
   a. Subdivision (under Section 13.6 of this Code)
   b. Public park or reserve, landscaping and environmental facilities (under Section 13.9 of this Code)
   c. Local roads and road infrastructure (under Section 13.11 of this Code).
   d. Water and stormwater management such as flooding and stormwater works, including on-site detention structures, swales, water sensitive urban design structures, gross pollutant traps and trunk drainage pipes (under Section 13.13 of this Code).
   e. Vegetation management and environmental protection works (under Section 13.15 of this Code).

13.2.3.3 Bushfire Prone Land

1. To be complying development specified for this Policy:
   a. The development must not be carried out on land in bush fire attack level-40 (BAL 40) or the flame zone (BAL-FZ), as identified within the detailed Bushfire Mapping at Appendix B of the Master Plan.
   b. Not be development identified under the Rural Fires Act 1997 as a Special Fire Protection Purpose
2. Clause 1 (a) above does not apply to the following development:
   a. Landscaped areas,
   b. Non-combustible structures as follows:
      – Fences
      – Stormwater works and infrastructure
      – Earthworks
      – Roads and road infrastructure
      – Retaining walls
      – Subdivision
3. For the purposes of this clause, land is not in bushfire attack level-40 (BAL-40) or the flame zone (BAL-FZ) if:
   a. The council or a person who is recognised by the NSW Rural Fire Service as a suitably qualified consultant in bush fire risk assessment determines, in accordance with the methodology specified in Planning for Bush Fire Protection, that the land is not in bush fire attack level-40 (BAL-40) or the flame zone (BAL-FZ), or
   b. In the case of development carried out on grasslands—the development conforms to the specifications and requirements of Table 7.9a of Planning for Bush Fire Protection that are relevant to the development.
4. Nothing in this clause prevents complying development being carried out on part of a lot that is not land referred to in this clause even if other parts of the lot are such land.
5. In this clause, grasslands, has the same meaning as in Planning for Bush Fire Protection.
6. Compliance with Planning for Bushfire Protection must be demonstrated with all Asset Protection Zones provided as part of the development of each stage, including any temporary Asset Protection Zones to satisfy requirements related to staging.

   Note—
   – More information about the categories of bush fire attack, including the flame zone, can be found in Table A1.7 of Planning for Bushfire Protection, with the latest bushfire prone land mapping contained at Pages 1-12 of Appendix B of the Master Plan.

13.2.4 Noise

1. For a new use or change of use to be complying development, a noise report must be prepared by a suitably qualified and experienced acoustic practitioner (e.g. a member of the Australian Acoustical Society, the Institution of Engineers, the Association of Australasian Acoustical Consultants, or a person with other appropriate professional qualifications). The noise report is to verify that:
2. The proposed development meets the specified noise allowances established for the relevant lot within Section 6.11.1 of the Master Plan, which identifies individual lots and specified noise criteria thresholds; and
3. The noise report is to be provided to the certifying authority prior to approval.

13.2.5 Air Quality

1. For a new use or changes of use to be complying development, it must be demonstrated to the satisfaction of the certifying authority that where the use is specified in Section 6.11.2 of the Master Plan, it must comply with the buffer zones for the specific industrial activity. This requirement is not necessary for warehouse and distribution centres or for commercial premises.

13.2.6 Certification

1. This Code contains specific development types where it is expected that Council would be the certifying authority (or an alternate certifying authority as approved by Council). These development types are as follows:
   a. Local road infrastructure and works, or
   b. Local stormwater works and infrastructure, or
   c. Subdivision of land, or
   d. Public domain works and landscaping where it is to be owned or dedicated to a public authority.
2. A private registered certifier can be utilised for all other forms of development proposed under this Code.
3. The Timeframes for assessment of a complying development application is to be consistent with:
   a. The relevant provisions in the Environment Planning and Assessment Act 1979, or
   b. Clause 133 of the Environment Planning and Assessment Regulation 2021, or
   c. For any complying development application lodged with Council for local roads and infrastructure, local stormwater works, subdivision of land and public domain works and landscaping where the land is to be dedicated to Council, the timeframe for assessment shall be 40 days.

13.3 Use of Premises Code

13.3.1 Specified Development

1. The 'first use' and 'change of use' of premises for a 'specified purpose' can be undertaken as complying development.
2. For the purposes of this Code, a 'specified purpose' is any use permitted with consent under the land Use Table for the Enterprise Zone (under the State Environmental Planning Policy (Precincts—Western Parkland City) 2021), subject to the exclusions listed in 13.3.2 below

13.3.2 Development Standards

1. For the purposes of this Code, the following uses are not a 'specified purpose':
   - Agricultural produce industries
   - Aquaculture
   - Cemeteries
   - Child-care centres
   - Data Centres
   - Eco-tourist facilities
   - Educational establishments
   - Freight transport facilities
   - Funeral homes
   - Garden centres
   - Hospital
   - Information and education facility
   - Livestock processing industries
   - Markets
   - Place of public worship
   - Plant nurseries
   - Pubs
   - Recreation facilities (major)
   - Recreation facilities (outdoor)
   - Registered clubs
   - Respite day care centre
   - Restricted premises
   - Retail premises that sell firearms within the meaning of the Firearms Act 1996
   - Roadside stalls
   - Sewage treatment plans
   - Sex services premises
   - Small bars
   - Turf farming
   - Waste or resource management facilities
   - Wind turbines
   - Skin penetration premises
   - Depots
   - Vehicle repair station
   - Vehicle body repair workshop
2. The development must not be for the purpose of potentially hazardous industries, and potentially offensive industries, within the meaning of State Environmental Planning Policy —Resilience and Hazards 2021.
3. The use must meet the noise criteria established for relevant lot within the site as identified in Section 6.11.1 of the Master Plan.
4. Where the use is specified in Section 6.11.2 of the Master Plan, it must comply with the buffer zones for the specific industrial activity.
5. If the premises is to be used to store food for sale, the certifying authority must be provided with detailed floor and section plans demonstrating compliance with the Food Act 2003, and Australia New Zealand Food Standards Code and Australian Standard (AS) 4674-2004 Design, Construction and Fit-Out of Food Premises.
6. If the premises is to be used to store hazardous goods, the certifying authority must be provided with detailed floor plans demonstrating compliance with AS3833:2024. The storage and handling of mixed classes of dangerous goods, in packages and intermediate bulk containers.

13.4 New Buildings and Additions Code

13.4.1 Specified Development

1. The erection of a building, or any addition to a building, is development specified for this Code.

13.4.2 Development Standards for all New Buildings and Additions

13.4.2.1 General Standards

1. Where development is proposed only in relation to alterations and additions, or minor works in relation to an existing building and not a new building, the proposal only needs to be compliant with the standards that are relevant to the proposed alterations and additions.

2. The proposed height of new buildings or additions must comply with the Height of Building Map included within the Master Plan at Section 6.4, Figure 26.

3. The development must not result in a building over a registered easement.

4. Any paths, ramps, steps or lifts developed through this code must comply with AS 1428-2009 Design for Access and Mobility.

5. For a complying development application for new buildings only, a Travel Plan must be prepared by the proponent which is in accordance with the Site Wide Travel Demand Management Strategy and provided to the certifying authority, prior to approval, in accordance with Section 7.4.12 of the Master Plan.

6. The erection of a building can include the construction of required associated development such as, but not limited to the following:

a. Landscaping in accordance with Section 13.9 of this Code

b. Fences and gates up to 5 metres in height

c. Driveways, paving, pathways and truck marshalling areas associated with a building constructed under this Code, subject to not reducing the on lot landscaping below 15%

d. Storage areas and loading docks associated with a building constructed under this Code

7. Building additions include external alterations or extensions to a building or structure.

Note:

– There is a requirement for an update to the Transport Management and Accessibility Plan and associated traffic modelling within Section 7.4.13 of the Master Plan, once specific levels of gross floor area is developed at the site.

13.4.2.2 Waste Storage and Collection

1. A garbage and waste storage area must be provided as part of new buildings.
2. A waste management plan must be prepared for all new buildings and provided to the certifying authority. The waste management plan must detail:
   a. the quantity and type of waste generated, and
   b. how this will be managed and recycled, and
   c. measures that ensure that all waste is inaccessible to wildlife
3. All waste bins are to be designed and installed with fixed lids.
4. Any bulk waste receptacle or communal waste storage area is to be contained within enclosures that cannot be accessed by birds or flying foxes.
5. Waste bins are provided to a level commensurate with waste produced for each development as outlined in the waste management plan and must be located such that they are not visible from a public place.
6. Where waste bins areas storage areas are located within a building, the bins storage area is to provide a floor area of at least 150% of the total minimum bin footprint.
7. Internal waste storage areas are designed to:
   a. Accommodate the required number and size of waste bins, and
   b. 1.8m unobstructed clearance zone between the stored bins and the entrance to permit access and manoeuvrability, and
   c. The room is to be fully enclosed, walled, lit and ventilated, and
   d. The floor is to be waterproofed, non-slip and sealed in accordance with the Building Code of Australia to permit the use of wash facilities, and
   e. Provide water and drainage facilities to clean bins and storage areas.
8. Waste storage containers are to be designed to provide uniform design and colour coding in accordance with Australian Standard - 4123 for commercial developments.
9. Collection and loading points for waste are to be:
   a. Level; and
   b. Free of obstructions; and
   c. Be accessible by heavy rigid collection vehicles
10. Waste collection is to be undertaken by a private contractor and access provisions for waste collection vehicles must be for:
    a. Collection on-site, and
    b. Access by a heavy rigid vehicle throughout the vehicle's entire onsite path of travel for Enterprise and Industry Locations, and
    c. Access by a heavy rigid vehicle or a medium rigid vehicle throughout the vehicle's entire onsite path of travel within the Local Centre, and
    d. Collection must not impede access to, within or from the site for other users, and
    e. Collection vehicles must enter and exit the site in a forward direction.

13.4.2.3 Privacy

1. A window in a building must have a privacy screen for any part of the window that is less than 1.5m above finished floor level if:
   a. The window faces a building used for residential accommodation on an adjoining lot, and the wall in which the window is located has a setback of less than 6m from the boundary of that adjoining lot.

13.4.3 Development Standards for Enterprise and Industry Locations

13.4.3.1 Specific Standards

1. Where a high bay warehouse development is proposed on land that is hatched on the Height of Building Map at Figure 26 of the Master Plan, the footprint associated with the high bay part of the warehouse component which is more than 35m in height but less than 52.5m in height, must not exceed more than 60% of building gross footprint.
2. The maximum gross floor area (GFA) for warehouse and distribution premises or other single buildings to be developed under this Code is 100,000sqm. Any proposed warehouse and distribution premises with a gross floor area of more than 100,000sqm (GFA), or addition to a building which would make the overall GFA exceed 100,000sqm is to be undertaken through a development application pathway.
3. All areas for the storage or handling of chemical or fuels on site must be designed with appropriate bunded areas that:
   a. Have impervious flooring; and
   b. Capacity to contain 110% of the largest container stored within the bund; and
   c. Are designed in accordance with pages 40–44 of the document entitled Storing and Handling Liquids: Environmental Protections, Participants Manual published by the Department of Environment and Climate Change NSW in May 2007.
4. All areas for the storage or handling of Dangerous Goods must be designed in accordance with AS 3833:2024. The storage and handling of mixed classes of dangerous goods, in packages and intermediate bulk containers.

   Note-
   - See potential configurations for high bay warehouse development at Figure 97 of the Master Plan.
   - The Enterprise and Industry Locations are identified on the Map 6 - Land Use Map at Appendix A of the Master Plan.

13.4.3.2 Building Setbacks

1. Building setbacks for Enterprise and Industry Locations are to be in accordance with Table 21.
2. Notwithstanding (1) above, the following development is permitted within the defined setback for any road (excluding primary arterial roads):
   - Landscaping;
   - Maintenance/rehabilitation of biodiversity corridors or areas;
   - Utility services installation;
   - Cross-overs;
   - Fire access roads;
   - Approved signage;
   - Street furniture;
   - Drainage works;
   - Public Art.
3. Setbacks to public roads may also incorporate loading dock manoeuvring areas and associated hardstand and off streetcar parking provided the minimum building setbacks in Table 21 are achieved.
4. The separate setback controls for new buildings at specific parts of the site included in Table 21 are illustrated in Section 6.7, Figure 30 in Master Plan.
5. The separate setback controls that relate to High Bay Warehousing that is 24m – 52.5m in height included in Table 21 are illustrated in Section 6.7, Figure 30 in Master Plan.

   Note -
   - The Enterprise and Industry Locations are identified in the Map 6 - Land Use Map at Appendix A of the Master Plan.
   - Building setback is the minimum distance which a building or structure must be set back from the road, boundary or lot, as defined in Table 21.

Table 21 Building Setbacks

Location	Building Setbacks
Building Setbacks	
Lots fronting primary arterial and sub-arterial roads	20m
Lots fronting collector streets	12m
Lots fronting local streets	7.5m
Secondary road frontages (corner lots)	5m
Rear and side boundaries	5m
Lots adjoining land zoned Environment and Recreation	10m boundary adjoining Environment and Recreation land, unless separated by a road (street setbacks above apply)
Development within defined building setbacks – Lots fronting a public road with a setback containing loading dock manoeuvring areas and associated hardstand	As per relevant setback for each public road above
Development within defined building setbacks – Lots fronting a public road with a setback containing off street car parking areas	Minimum 13m
Additional Building Setbacks	
Southern Interface of Road 03 (west of central riparian corridor)	Minimum building setback from the boundary is 13m.
Northern Interface of Road 03 (west of central riparian corridor)	A minimum 13m building setback to Local Road where off-street parking is included within the landscaped area (which must be minimum of 6m).
Southern Interface of Road 02	The minimum building setback from the boundary is 13m.
Additional Building Setbacks for High Bay Warehousing	
Southern Interface Road 03 (west of central riparian corridor):	Minimum building setback from the boundary is 20m from southern interface of road; and
	Minimum 15m setback adjacent to riparian corridors.
Northern Interface of Road 03 (west of central riparian corridor):	Minimum building setback from the boundary is 15m
Southern Interface of Road 02	Minimum building setback from the boundary is 20m
Roads 7, 8 & 11	Minimum 15m building setback

13.4.3.3 Landscape Setbacks

1. Landscaped area is to be provided in accordance with Table 22 and Figure 30 in Section 6.7 of the Master Plan.
2. Tree planting must be from relevant Local Centre or Industrial On-Lot Plant Schedule contained within Appendix B of the Master Plan.
3. A fire trail for emergency vehicles, if provided, must not be located within the landscape setback.
4. There are additional landscape setback controls at specific parts of the site outlined in Table 22 which are also illustrated in Figure 30.

Note -

- Landscape setback is the minimum width of landscaping from the site boundary to be provided in the locations identified in Table 22.
- The road network hierarchy is defined in the Road Network Plan, which is included as Section 7.4, Figure 42 of the Master Plan.

Table 22 Landscape Setbacks

Location	Landscape Setback Minimum Width (from the site boundary)
Landscape Setbacks	
Lots fronting primary arterial and sub-arterial roads	10m
Lots fronting collector streets	6m
Lots fronting local streets	4m
Secondary road frontages (corner lots)	3m
Rear and side boundaries	2.5m - No minimum requirement for side boundaries
Lots adjoining land zoned Environment and Recreation	5m landscape setback from the edge of the Environment and Recreation zoned land, unless separated by a road.
Development within defined building setbacks –	Minimum 6m
Lots fronting a public road with a setback containing loading dock manoeuvring areas and associated hardstand	
Development within defined building setbacks –	Minimum 6m
Lots fronting a public road with a setback containing off-street car parking areas	
Additional Landscape Setbacks	
Southern Interface Road 03 (west of central riparian corridor)	The minimum landscape setback is 10m.
Southern Interface of Road 02	The minimum landscape setback is 10m.
Northern Interface of Road 03 (west of central riparian corridor	The minimum landscape setback is 6m

13.4.3.4 Parking

1. On site car parking is to be provided in accordance with parking rates identified in Section 3.2 of the DCP.
2. For activities not identified in the DCP, the NSW Government Guide to Transport Impact Assessment (2024) must be complied with where relevant.
3. The car park must be designed in accordance with the following where relevant —
   a. AS 1428.1:2021, Design for access and mobility, Part 1: General requirements for access—New building work,
   b. AS/NZS 1428.4.1:2009, Design for access and mobility, Part 4.1: Means to assist the orientation of people with vision impairment—Tactile ground surface indicators,
   c. AS/NZS 2890.1:2004, Parking facilities, Part 1: Off-street car parking,
   d. AS 2890.2:2018, Parking facilities, Part 2: Off-street commercial vehicle facilities.
   e. AS 2890.6:2022 Parking facilities, Off Street parking for people with disabilities.
4. The car park must be paved with concrete, bituminous or permeable surfaces.
5. Tree planting in the form of island planter beds shall be provided at a rate of one planter bed per 10 car spaces with planting at a minimum dimension of 2.5m wide.

13.4.3.5 Loading and Access

1. This clause applies to development that—
   a. provides a new loading bay or new driveway, or
   b. involves alterations or additions specifically to an existing loading bay or driveway.
2. The loading facilities must be contained wholly within the lot on which the development is carried out.
3. Loading bays must:
   a. be located behind the front building line of the building, and
   b. not be located adjacent to residential accommodation.
4. Driveways within the lot on which the development is carried out must be designed so as to enable vehicles to leave the lot in a forward direction.
5. Vehicular access and driveways widths must be swept path tested for the largest vehicle that will access a particular site e.g. 30m PBS Level 2 Type B or 36.5m PBS Level 3 Type A vehicles.
6. Vehicular ramps less than 20m long must have a maximum grade of 1 in 5 (20%).
7. All loading and unloading areas are to be separated from car parking and waste storage and collection areas.
8. For industrial and warehouse uses, heavy vehicles must be separated from staff and visitor parking areas, except where provided for in the Section 7.4.8 of the Master Plan.
9. Ingress to and egress from the site, driveway widths, turning circles and the dimensions of all loading bays must be designed in accordance with—
   a. AS/NZS 2890.1:2004, Parking facilities, Part 1: Off-street car parking or AS 2890.2:2018, Parking facilities, Part 2: Off-street commercial vehicle facilities and RMS Australian Standard Supplements, Australian Standard—AS2890, Parking Facilities, Parts 1–6, and
   b. the document entitled Guide to Traffic Generating Developments, Version 2.2, published by the Roads and Traffic Authority in October 2002

13.4.4 Development Standards for the Local Centre

13.4.4.1 Specific Standards

1. No more than 4,900sqm of gross floor area for 'retail premises' use can be developed within the Local Centre under this Code.
   a. Where a retail premises development is proposed under this Code, the cumulative level of retail premises GFA within the Local Centre must be demonstrated through survey information and provided to the certifying authority prior to approval.
2. Any food and drink premises must comply with AS 4674—2004, Design, construction and fit-out of food premises.

Note –

- The Local Centre is identified on the Map 6 - Land Use Map at Appendix A of the Master Plan.
- There is a requirement for additional traffic modelling to be undertaken prior to the first complying development certificate being issued for new floorspace within a building at Section 7.4.14 of the Master Plan

13.4.4.2 Built Form and Setbacks

1. Commercial buildings must be consistent with:
   a. Section 4.2.2 Amenity and Sustainability of the DCP; and
   b. Section 4.2.3 Building Setbacks and Separation of the DCP; or the setbacks at Section 9.1, Figure 79 within the Master Plan.

13.4.4.3 Parking

1. On-site car parking is to be provided in accordance with the car parking rates identified in Section 4.3 of the DCP.
2. For activities not identified in the DCP, the NSW Government Guide to Transport Impact Assessment (2024) must be complied with where relevant.
3. The car park must be designed in accordance with the following where relevant:
   a. AS 1428.1:2021, Design for access and mobility, Part 1: General requirements for access—New building work.
   b. AS/NZS 1428.4.1:2009, Design for access and mobility, Part 4.1: Means to assist the orientation of people with vision impairment—Tactile ground surface indicators.
   c. AS/NZS 2890.1:2004, Parking facilities, Part 1: Off-street car parking.
   d. AS 2890.2:2018, Parking facilities, Part 2: Off-street commercial vehicle facilities.
   e. AS 2890.6:2022 Parking facilities, Off Street parking for people with disabilities.
4. The car park must be paved with concrete, bituminous or permeable surfaces.
5. Tree planting in the form of island planter beds shall be provided at a rate of one planter bed per 5 car spaces wihtin the Local Centre with planting at a minimum dimension of 2.5m wide.

13.4.4.4 Bicycle Parking

1. Bicycle parking is to be provided in accordance with the bicycle parking rates identified in the Section 4.3 of the DCP. The minimum number of bicycle parking spaces is to be rounded up to the nearest whole number.
2. Where bicycle parking for tenants is provided in a basement;
   a. It is to be located on the uppermost level of the basement; and
   b. Lockers, showers and cubicles are to be provided; and

13.4.4.5 Parking Design and Access

1. Where basement parking is provided a maximum of one 6m wide basement vehicle entry and one 6m wide basement exit is provided per basement, except where multiple basements under buildings may be linked.

13.4.5 Internal Alterations Across Whole Site

1. Internal alterations to a building is development that is specified for this Code, subject to the following development requirements of the Building Code of Australia:

a. if the building that is being altered is subject to a performance solution relating to a fire safety requirement, the alteration must be consistent with that performance solution; and

b. if the alteration involves an area of more than 500m2 of commercial premises, or an area of more than 1,000m2 of premises used for light industry or a warehouse or distribution centre, that area must:

i. comply with the requirements set out in the Building Code of Australia, Volume 1, D1P2–D1P5, and

ii. comply with the number of sanitary and other facilities set out in the Building Code of Australia, Volume 1, F4P1, and

iii. comply with the light and ventilation requirements set out in the Building Code of Australia, Volume 1, F6P1–F6P5; and

d. If the building is a mixed use development that also contains a Class 2, 3 or 4 portion, the altered area must be separated from the Class 2, 3 or 4 portion by building elements that comply with the fire resistance performance requirements set out in the Building Code of Australia, Volume 1, C1P2 and C1P8; and

e. if the alteration involves food and drink premises, the alteration must be carried out in accordance with AS 4674—2004, Design, construction and fit-out of food premises; and

f. the alteration must not relate to the cooking of food at the premises by barbecue or charcoal methods, and

g. If the alteration is to a building used for the purposes of an entertainment venue (such as cinema, theatre hall or auditorium) in a registered club or used as an entertainment facility, the alteration must not increase the floor area used for those purposes.

13.4.6 Temporary Construction Cranes and Moveable Plant and Equipment

1. The installation of a temporary construction crane associated with the development of new buildings and moveable plant and equipment at the site is development that is specified for this Code subject to:

a. The temporary crane or moveable plant and equipment does not breach the prescribed airspace of the Western Sydney Airport;

b. Notwithstanding a. above, a temporary crane or moveable plant and equipment can be erected where a controlled activity approval for the development has been granted under the Airports Act 1996 and the Airports (Protection of Airspace) Regulations 1996 and provided to the certifying authority prior to approval.

13.5 Awnings and Canopies Code

13.5.1 Specified Development

1. The construction or installation of an awning or canopy on an existing building or a new building within the Local Centre.

13.5.2 Development Standards

1. The development must not—
   a. result in an increase to the gross floor area of a building, or
   b. reduce the existing level of access to a building by people with a disability.

2. The awning or canopy must not be:
   a. less than 2.7m above finished ground level at any point, or
   b. closer than 450mm to the edge of a kerb or alignment of a path or road on which vehicles travel, or
   c. the awning or canopy must not be more than 3.5m in depth measured horizontally from the facade of the building; or

3. It must comply with the requirements set out in the Building Code of Australia, Volume 1, B1P1 and B1P2.

4. It must be structurally sound.

5. It must be designed and certified by a professional engineer.

Note –
- A structure on public land or on or over a public road requires the prior approval of the relevant authority under the Local Government Act 1993 or the Roads Act 1993, respectively and must be obtained ahead of construction.
- The Local Centre is identified on the Map 6 - Land Use Map at Appendix A of the Master Plan.

13.6 Subdivision Code

13.6.1 Specified Development

1. The subdivision of land (Torrens Title) is development to which this Code applies.

13.6.2 Development Standards

1. Prior to the issuing of a complying development certificate for subdivision works under this Code, engineering drawings and supporting documentation must be issued to the registered certifier in relation to the following sections of the Code:

a. Any earthworks must be designed in accordance with Section 13.7 of this Code; and

b. Any retaining walls must be designed in accordance with Section 13.8 of this Code; and

c. Any landscaping or public domain works, including street tree planting, must be designed in accordance with Section 13.9 of this Code; and

d. Any local roads or road infrastructure must be designed and constructed in accordance with Section 13.11 of this Code, with each lot for the purposes of new buildings associated with Enterprise and Industry or Local Centre uses having lawful access to a road; and

e. Any local stormwater works and stormwater infrastructure must be designed and constructed in accordance with Section 13.13 of this Code.

2. Prior to the issuing of a complying development certificate for subdivision works under this Code, the applicant must provide to the registered certifier the relevant approvals from utility service providers:

a. Endeavour Energy, or relevant service provider, has confirmed electricity services can be made available to the lots; and

b. NBN, or relevant service provider, has confirmed that telecommunications infrastructure including fibre ready facilities and fixed line telecommunication infrastructure can be provided to the lots; and

c. Sydney Water has provided a Notice of Requirements indicating that potable water, stormwater and wastewater services can be provided to the lots.

3. Prior to the issuing of a complying development certificate for subdivision works under this Code, the applicant must provide to the registered certifier a Plan of Proposed Subdivision, noting any easements, positive covenants or restriction on user on title.

4. Upon the registered certifier's approval of the drawings and documentation provided in accordance with Sections 13 (1), (2) and (3) above, the registered certifier will issue a complying development certificate approving subdivision works under this Code.

Note-

– Where subdivision of land is proposed under this Section, the role of certifying authority under Part 6 of the Environmental Planning and Assessment Act 1979, is to be offered to Council in the first instance. Where this is not accepted to be undertaken by Council, an alternative certifying authority can be approved by Council.

– The Environmental Planning and Assessment Act 1979 states at Section 6.13 (2) that a subdivision works certificate is not required for subdivision work carried out in accordance with a complying development certificate.

13.7 Earthworks Code

13.7.1 Specified Development

1. Earthworks at the site is development to which this Code applies.

13.7.2 Development Standards

1. The cut and fill controls for earthworks under this Code are +/- 6 metres, along with a +/- 2 metre tolerance from existing ground level. For any development that proposes cut and fill above these provisions, a Development Application must be sought.

2. Earthworks, including a structural retaining system or other related structure, must not:

a. Cause a danger to life or property or damage to any adjoining buildings or structures on the land comprising the lot on which the earthworks are carried out or to any building or structure on land comprising an adjoining lot, or

b. Redirect the flow of any surface or ground water, or cause sediment to be transported, onto an adjoining property.

3. Fill brought to the site must be appropriate fill (as defined in this Code).

4. Excavation must be carried out in accordance with Excavation Work: Code of Practice, published by SafeWork NSW in January 2020.

5. Earthworks must be carried out in accordance with AS3798-2007 'Guidelines on earthworks for commercial and residential developments'.

6. A Geotechnical Report and Salinity Management Plan is to be provided to the certifier prior to construction occurring.

7. Excavation and fill shall be adequately retained and drained in accordance with the Western Sydney Engineering Design Guidelines.

Note-

– Earthworks within 20 metres of the lot boundary adjoining the Eastern Ring Road, Badgery's Creek Road, Bradfield Metro Link Road or Fifteenth avenue must be referred to TfNSW for comment and formal written advice on the adjoining road levels prior to approval.

13.8 Retaining Walls Code

13.8.1 Specified Development

1. The construction of a retaining wall is development for which this Code applies.

13.8.2 Development Standards

1. Any retaining walls fronting the public domain must comply with the provisions for retaining walls within Section 2.18 of the DCP.

2. Retaining walls within any setback area (i.e. the edge of the road corridor boundary to the wall of the building) adjacent to the Eastern Ring Road, Badgerys Creek Road, Bradfield Metro Link Road or Fifteenth Avenue, are not to be more than 3 metres below ground level (existing) and not more than 2 metres above ground level (existing).

3. Any internal retaining walls not visible from the public domain can be developed to a maximum height of 7m (from existing ground level).

4. Where a retaining wall adjoins a public road:

a. The retaining wall must be tiered where the level difference exceeds 1.0m; and

b. Each retaining wall tier element shall be no more than 2.0m; and

c. A 1.5m-2m wide deep soil zone with suitable landscaping is to be provided between each tier; and

d. The maximum cumulative height of any retaining walls adjoining the public domain is 6.0m.

5. The toe (fill retaining wall) or top (cut retaining wall) of all retaining walls are to be setback 2.0m (linear) into the property boundary.

6. The wall must comply with the following—

a. AS 3700:2018, Masonry structures and AS 3700:2018 Sup 1:2020, Masonry structures—Commentary (Supplement 1 to AS 3700:2018),

b. AS/NZS 1170.1:2002, Structural design actions, Part 1: Permanent, imposed and other actions, and AS/NZS 1170.1 Supp 1:2002, Structural design actions—Permanent, imposed and other actions—Commentary (Supplement to AS/NZS 1170.1:2002),

c. if the structure is made of timber—AS 1720.1—2010, Timber structures, Part 1: Design methods.

d. AS 4678-2002 Earth Retaining Structures.

e. If the structure is made of concrete – AS 3600:2018 Concrete Structures.

f. AS 3798 Guidelines on Earthworks for Commercial and Residential developments.

7. The wall must be designed accordance with the Sydney Water Scheme Plan where the retaining wall is within or around the regional trunk stormwater drainage infrastructure.

8. The retaining wall must be certified by a qualified engineer to be structurally sound.

Note-

– An example of a retaining wall constructed in accordance with Section 8.2 (2) above is included at Section 8.5.5, Figure 71 of the Master Plan.

13.9 Public Domain and Landscaping Code

13.9.1 Specified Development

1. Public domain works and landscaping, including the development of environmental facilities, is development for which this Code applies.

13.9.2 Development Standards

1. Landscape and public domain, outside of the Riparian Corridor (see (2) below) is to be designed in accordance with the referenced sections of the Master Plan, as follows:

a. Tree Species to be planted within Enterprise and Industry, Local Centre and Streetscape must be selected from the Wildlife Risk and Exempt Species identified at Section 8.6.6, Table 15 of the Master Plan; and

b. Open Space is to be developed in accordance with the Open Space Delivery Plan at Section 8.3.1, Figure 52 of the Master Plan; and

c. Landscape and public domain is to be delivered in the Local Centre is to be in accordance with the Master Plan of Local Centre at Section 9.1.3, Figure 87 of the Master Plan; and

d. The Local Park is to be delivered in accordance with the Local Park Plan at Section 9.2, Figure 92 of the Master Plan; and

e. The planting in the Local Centre is to be selected from the Local Centre Planting Schedule at Section 9.1.3, Figure 91, 91a and 91b of the Master Plan; and

f. The streetscape landscaping is to be delivered in accordance with the Streetscape Masterplan Section 7.3, Figure 41 of the Master Plan; and

g. The planting on lots within the Enterprise and Industry areas is to be selected from the Industrial On Lot Planting Schedule at Section 8.6.4, Figure 75, 76 and 76a of the Master Plan.

[Riparian Corridors, Streetscape, Local centre and Industry and Enterprise Locations are identified on Page 19 of Appendix B of the Master Plan]

2. The Riparian Corridor landscaping must be developed in accordance with the Riparian Corridor Landscape Documentation (prepared by Site Image - February 2025 which is contained at Appendix D of the Master Plan. Tree species for the Riparian Corridors can be selected from Appendix B of the DCP which outlines the Western Sydney Aerotropolis Landscape Species List.

3. Landscape and tree planting is to be consistent with the provisions relevant to the proposed development from Section 2.4.1, 2.4.4 and 2.4.5 of the DCP, except for:

a. The landscape planting species identified above in 9.2 (1) (a); and

b. On Lot development in Enterprise and Business Locations is to achieve a canopy cover target of at least 15%; and

c. Streetscape and road corridors to achieve a canopy cover target of at least 50%; and

d. On-Lot development within the Local Centre to achieve a canopy cover target of at least 30%

4. Verification of compliance with the Landscape Strategy or Riparian Corridor Landscape Documentation shall be provided by a registered landscape architect to the certifying authority.

5. All litter bins within the public domain must be designed and installed with fixed lids.

Note-

– Where public domains works, landscaping or public open space works such as seating or lighting is to be dedicated to Council, the role of certifying authority under Part 6 of the Environmental Planning and Assessment Act 1979, must be offered to Council in the first instance. Where this is not accepted to be undertaken by Council, an alternative certifying authority can be approved by Council.

13.10 Artwork and Sculptures Code

13.10.1 Specified Development

1. The erection, display or installation of artwork or sculptures, either freestanding or attached to a building is development for which this Code applies.

13.10.2 Development Standards

1. Artwork selection, creation and endorsement must follow the requirement of the Public Art Strategy, as required by Section 10.3 Public Art Strategy of the Master Plan.
2. Endorsement by the Estate Public Art consultant that the development has been designed and created in accordance with Section 10.3 of the Master Plan must be provided in written form to the certifying authority prior to approval.
3. Public Art must comply with the terms of any concept development application approval granted by Liverpool Council that relates to the implementation of public art at the site.
4. The development must:
   a. Be structurally sound and securely fixed with any moveable parts securely attached; and
   b. Not give rise to any noise or other nuisance to any adjoining property.
5. Public Art is to be provided in accordance with the conditions of any concept development application approval granted by Liverpool Council that requires the implementation of public art at the site.

13.11 Local Roads and Road Infrastructure Code

13.11.1 Specified Development

1. The construction of new local roads and road infrastructure within the site is development for which this Code applies.
2. Local roads for which this Code applies are those detailed in Map 3 – Road Network Complying Development Map contained at Appendix A of the Master Plan, which shows roads capable of being delivered as complying development.
3. The roads identified in the Map 3 – Road Network Complying Development Map can be constructed as complying development, excluding a road (the connecting road) that connects between the access point, of the Eastern Ring Road, Badgerys Creek Road, Bradfield Metro Link Road or Fifteenth Avenue and the nearest local road intersection.

13.11.2 Development Standards

1. The new local road and road infrastructure must be developed in accordance with the below development standards and the Civil Works Site Plan which is contained at Figure 70 in Section 8.5 of the Master Plan.
2. The development must comply with the following Liverpool City Council Design Specification documentation:
   a. D1 Geometric Road Design (Urban and Rural)
   b. D2 Pavement Design
   c. D3 Structures Bridge Design
   d. D4 Subsurface Drainage Design
   e. D5 Stormwater Drainage Design
   f. D6 Site Regrading
   g. D7 Erosion Control and Stormwater Management
   h. D9 Cycleway and Pathway Design
3. New local road designs must comply with the road designs for local streets, collector streets and park edge streets as identified in the Aerotropolis Precinct Plan (as amended by the Masterplan) and be consistent with the relevant design outcomes for road network and design in the DCP, as certified by a qualified civil engineer and provided in writing to the certifying authority.
4. Any on street parking must comply with Australian Standard - 2890.5 Parking facilities – On-street Parking.
5. Regional and trunk stormwater drainage and any Water Sensitive Urban Design elements within roads and associated infrastructure must be designed in accordance with Sydney Water's regional trunk drainage scheme.
6. Development under this Code must be designed to avoid inundation from adjacent waterways in the 1% AEP flood event, confirmation of this must be provided to the certifying authority by a professional engineer who specialises in hydraulic engineering.

   Note –

   – Where local road and road infrastructure works are to be dedicated to Council, the role of certifying authority under Part 6 of the Environmental Planning and Assessment Act 1979, is to be offered to Council in the first instance. Where this is not accepted to be undertaken by Council, an alternative certifying authority as approved by Council can undertake the role of certifying authority.

13.12 External Lighting Code

13.12.1 Specified Development

1. Installation and operation of external lighting at a premises or in connection with a new building is development for which this Code applies.

13.12.2 Development Standards

1. All new external lighting must—
   a. comply with AS/NZS 4282:2019, Control of the obtrusive effects of outdoor lighting, and
   b. be mounted, screened and directed in a way that it does not create a nuisance or light spill on to buildings on adjoining lots or public place.

2. External lighting must not include coloured or flashing lights unless written approval has been provided by the relevant Commonwealth body.

3. Construction lighting is to comply with relevant provisions of the Civil Aviation Regulations 1988.

4. External lighting within the primary light control zones (under the Guidelines for Managing Risk of Distractions to Pilots from Lighting in the Vicinity of Airports) must not exceed the following intensity of light above a 3-degree horizontal:
   a. Zone A – 0 candela (cd)
   b. Zone B – 50 cd
   c. Zone C – 150 cd
   d. Zone D – 450 cd,
   or be fitted with a screen/shroud that prevents the light emission above the horizontal plane, and

5. Where installation and operation of external lighting in connection with construction works that is likely to or create light spill outside the land on which the construction works are carried out, confirmation of consultation with the relevant Commonwealth Aviation Body must be provided in writing to the certifying authority prior to works occurring.

13.13 Local Stormwater Works Code

13.13.1 Specified Development

1. The development of stormwater infrastructure including swales, trunk drainage, catchment basins, WSUD, gross pollutant traps and associated works.
2. This Code does not include the development of regional stormwater infrastructure. (Note: this can be developed under Part 5 of the Environmental Planning and Assessment Act 1979).

13.13.2 Development Standards

1. The local stormwater works must be in accordance with the development standards below and the Basin Catchment Plan depicted at Section 8.5, Figure 69 of the Master Plan.
2. The development must comply with the stormwater management controls in the DCP.
3. The stormwater drainage infrastructure must comply with the Technical Guidance for Achieving Wianamatta-South Creek Stormwater Management Targets.
4. The development must comply with the Sydney Water Stormwater Scheme Infrastructure Design Guideline (latest version).
5. For stormwater pipe grades the following requirements from the Western Sydney Planning Partnership's Western Sydney Engineering Design Guide are to be adopted:
    a. All pipes are to be graded at a minimum of 1% except where site constraints require adoption of minimum grades as per AS3500.
    b. An absolute minimum grade of 0.5% for pipes with a diameter of 600mm or greater may be permitted up to a maximum length of 75m.
    c. Where pipe grades are in excess of 15%, concrete bulkheads are to be placed at every second collar and are to be constructed in accordance with the engineering drawings.
6. The local stormwater drainage infrastructure must comply with the following Liverpool City Council Design Specification and other documentation:
    a. D4 Subsurface Drainage Design
    b. D5 Stormwater Drainage Design
    c. D6 Site Regrading
    d. D7 Erosion Control and Stormwater Management
    e. Handbook for Drainage Design Criteria
    f. Onsite Stormwater Detention Standard
7. Where there is any conflict between the requirements contained within the above policies and guidance contained within (2) to (6) above, the policy or guidance that is listed first within the development standards above will take precedence in terms of the design of the local stormwater works.
8. A qualified engineer must provide a design compliance certificate to the certifying authority for all stormwater infrastructure.
9. The qualified engineer must be on Sydney Water's register for Aerotropolis and Mamre Road Approved Stormwater Consultants and approved on the Hydrologic, hydraulic modelling, assessment, and drainage design and the Waterways and WSUD design categories on Sydney Water's Western Sydney Stormwater Designers List.

Note-

- Where local stormwater infrastructure works are to be dedicated to Council, the role of certifying authority under Part 6 of the Environmental Planning and Assessment Act 1979, is to be offered to Council in the first instance. Where this is not accepted to be undertaken by Council, an alternative certifying authority can be approved by Council.
- For the purposes of this Code:
    - Local stormwater drainage and WSUD infrastructure includes all stormwater pits, headwalls, pipes, gutters, swales and stormwater quality improvement measures within the local road reserves and designed to convey and treat stormwater runoff from catchments up to 15ha and for storms up to and including the 10% AEP.
    - Regional stormwater drainage and WSUD infrastructure includes all stormwater pits, headwalls, pipes, gutters, swales, open channels, natural waterways, stormwater quality improvement, stormwater quantity reduction and stormwater re-use measures within public parks, drainage reserves, and land to be dedicated to Sydney Water servicing catchments of 15ha and greater.

13.14 Other Subdivision Code

13.14.1 Strata Subdivision

13.14.1.1 Specified Development

1. The strata subdivision of a building for which development consent or a complying development certificate was granted or issued is, for 5 years from the date the consent or certificate was granted or issued, development specified for this code.

13.14.1.2 Development Standards

1. The subdivision must not contravene any condition of any development consent or complying development certificate applying to the development.

13.14.2 Strata Subdivision certificates

1. A subdivision certificate may be issued by an accredited certifier for a subdivision under this Section in accordance with Division 6.4 of the Act.

13.15 Tree and Vegetation Management Code

13.15.1 Specified Development

1. The removal of trees to facilitate complying development at the site is development specified for this Code.
2. The creation of an asset protection zone (APZ) at the site is development specified for this Code.

13.15.2 Development Standards

1. This section does not relate to removal of trees which are planted in response to the requirements for tree planting in connection with Sections 13.4 or 13.9 of this Code.
2. Tree removal is not permitted within the High Biodiversity Value area, or the area identified as Additional High Conservation Value Vegetation identified on the Map 2 - Land Constraints Map contained at Appendix A.
3. Complying development under this Code must not be carried out on land that is shown as "existing native vegetation" on the High Biodiversity Value Areas Map which forms part of State Environmental Planning Policy (Precincts - Western Parkland City) 2021.
4. Where an APZ is to be created or maintained at the site in compliance with Section 13.2.3.3 (6) of this Code, this must be undertaken in accordance with Appendix 4 of Planning for Bushfire Protection 2019.

13.16 Temporary Public Roads, Construction, Haul Roads and Associated Ancillary Works

13.16.1 Specified Development

1. The construction of temporary roads and paths accessible to the public, and construction roads or haul roads and ancillary works contained wholly within the site is development for which this Code applies.

13.16.2 Development Standards

1. The development must not require a cut or fill of greater than 2m from ground level (existing).
2. It must be constructed or installed so that any surface water or runoff is disposed of by a drainage system that is connected to the existing stormwater drainage system and complies with the standards for stormwater drainage nominated in Section 13.13.2 of this Code.
3. It must be constructed in accordance with:
   a. AS/NZS 2890.1:2004, Parking facilities Part 1: Off-street car parking; or
   b. AS 2890.2:2018, Parking facilities, Part 2: Off-street commercial vehicle facilities and
   c. RMS Australian Standard Supplements, Australian Standard—AS2890, Parking Facilities, Parts 1–6 issued by Transport for NSW.
4. Works that will be accessible by the public must comply with the following Liverpool City Council Design Specification documentation:
   a. D1 Geometric Road Design (Urban and Rural)
   b. D2 Pavement Design
   c. D3 Structures Bridge Design
   d. D4 Subsurface Drainage Design
   e. D5 Stormwater Drainage Design
   f. D6 Site Regrading
   g. D7 Erosion Control and Stormwater Management
   h. D9 Cycleway and Pathway Design
5. It must be designed to allow all vehicles to turn around within the site and exit in a forward direction.
6. It must be designed and certified by a professional engineer.
7. Temporary works are to be removed upon completion and prior to dedication of the relevant stage of works to Council. Redundant temporary works must be removed upon completion and prior to dedication of all estate stages unless deemed necessary for retention by Council or TfNSW and shall remain in place until deemed redundant by Council or TfNSW .

   Note-
   - Concurrence may be required from the appropriate roads authority to connect to a road under section 138 of the Roads Act 1993 or under the Water Management Act 2000 where required in relation to development proposed within 40m or a waterbody.
   - Temporary public roads and paths, haul and construction roads would be constructed for a temporary period of time, ahead of the final road layout for the site as identified in Figure 41 of the Master Plan.
   - Associated ancillary works would include cul-de-sacs, shared paths, ramps, parking, structures, retaining walls, bridges and culverts where associated with temporary construction work at the site.
   - Roads and paths that are accessible to the public are those that are not solely accessed for construction purposes.

13.17 Signage Code

13.17.1 Specified Development

1. Signage and signage structures, other than advertising structures, within the site is development to which this Code applies.

13.17.2 Development Standards

1. A sign must comply with—
   a. AS 1319—1994, Safety signs for the occupational environment, and
   b. AS/NZS 4282:2019, Control of the obtrusive effects of outdoor lighting

2. Signage be securely fixed to the building in accordance with—
   a. AS/NZS 1170.0:2002, Structural design actions, Part 0: General principles, and
   b. AS/NZS 1170.2:2011, Structural design actions, Part 2: Wind actions.

3. For signage within Enterprise and Industry Locations :
   a. Free standing pylon signage must not exceed 10m in height from finished ground level and 2m width. No signage is permitted in the bottom 2m of the structure, and
   b. Building identification signage must have a maximum advertising area of up to 0.5 square metres for every metre of lineal street frontage, up to an advertising area per sign maximum of 45sqm, and
   c. Sky signs and roof signs that project vertically above the roof of a building are not permitted, and
   d. Flat mounted wall signs for business identification signage are to be no higher than 15 metres above finished ground level, and
   e. Signage must not include moving, revolving, strobing, or flashing components which would impact Airport operations.

4. For signage in connection with development in the Local Centre:
   a. Shop front signage is not to project above, below or beyond the return edge of the fascia, and
   b. Under awning signage is to have a maximum dimension of 2.5m x 0.3m, and
   c. Flush wall signage is to have a maximum area of 5 sqm, and
   d. Building identification signs are limited to 1 sign per building, and
   e. Overhead signage provides a minimum of 2.4m high clearance to a public footpath below any signage device, and
   f. Signage must not include moving, revolving, strobing, or flashing components which would impact Airport operations, and
   g. The illuminance, luminance and threshold increment of illuminated signage complies with AS 4282-1997, and
   h. Up-lighting of signs is prohibited.

Note-
– Enterprise and Industry Locations and Local Centre is identified in the mapping at Appendix A of the Master Plan (No.6 – Land Use Plan).

13.18 Complying Development Conditions

13.18.1 Conditions applying before Work Commences

13.18.1.1 Protection of adjoining areas

1. A temporary hoarding or temporary construction site fence must be erected between the work site and adjoining lands before the works begin and must be kept in place until after the completion of the works if the works:
   a. could cause a danger, obstruction or inconvenience to pedestrian or vehicular traffic, or
   b. could cause damage to adjoining lands by falling objects, or
   c. involve the enclosure of a public place or part of a public place.

13.18.1.2 Toilet Facilities

1. Toilet facilities must be available or provided at the work site before works begin and must be maintained until the works are completed at a ratio of one toilet plus one additional toilet for every 20 persons employed at the site.
2. Each toilet must:
   a. be a standard flushing toilet connected to a public sewer, or
   b. have an on-site effluent disposal system approved under the Local Government Act 1993, or
   c. be a temporary chemical closet approved under the Local Government Act 1993.

13.18.1.3 Waste Management

1. A waste management plan for the work must be submitted to the certifying authority at least 2 days before work commences on the site
2. The waste management plan must:
   a. identify all waste (including excavation, demolition and construction waste materials) that will be generated by the work on the site, and
   b. identify the quantity of waste material in tonnes and cubic metres to be:
      – reused on-site, and
      – recycled on-site and off-site, and
      – disposed of off-site, and
   c. if waste materials are to be reused or recycled on-site, specify how the waste material will be reused or recycled on-site, and
   d. if waste materials are to be disposed of or recycled off-site, specify the contractor who will be transporting the materials and the waste facility or recycling outlet to which the materials will be taken.
   e. be prepared in accordance with Waste Management and Recycling in Commercial and Industrial Facilities (EPA, 2012)

13.18.1.4 Garbage Receptacle

1. A garbage receptacle must be provided at the work site before works begin and must be maintained until the works are completed.
2. The garbage receptacle must have a tight-fitting lid and be suitable for the reception of food scraps and papers.

13.18.1.5 Adjoining Wall Dilapidation Report

1. Before commencing any demolition or excavation works, the person having the benefit of the complying development certificate must obtain a dilapidation report on any part of a building that is within 2m of the works.
2. If the person preparing the report is denied access to the building for the purpose of an inspection, the report may be prepared from an external inspection.

13.18.1.6 Run Off and Erosion Controls

1. Run-off and erosion controls must be implemented to prevent soil erosion, water pollution or the discharge of loose sediment on the surrounding land by:
   a. diverting uncontaminated run-off around cleared or disturbed areas, and
   b. erecting a silt fence and providing any other necessary sediment control measures that will prevent debris escaping into drainage systems, waterways or adjoining properties, and
   c. preventing the tracking of sediment by vehicles onto roads, and
   d. stockpiling topsoil, excavated materials, construction and landscaping supplies and debris within the lot.
2. Waterway health and stormwater management targets must comply with Section 2.3 and Section 2.5.5 of the DCP.

13.18.1.7 Construction Environmental Management Plan

A Construction Environmental Management Plan (CEMP) shall be prepared relating to development to be constructed under this Code in accordance with criteria outlined within the Site Wide Framework CEMP prepared by SLR as referenced in Section 12.4 of the Master Plan, to the satisfaction of the certifying authority.

The CEMP is to include the preparation and implementation of a Construction Biodiversity Management Plan which aligns with the recommendations of the Biodiversity Management Plan prepared by Ecological Australia as referenced in Section 12.4 of the Master Plan.

Note: The Biodiversity Management Plan contains the following:

a. Flora and Fauna Management Plan
b. Wildlife Hazard Management Plan
c. Vegetation Management Plan
d. Weed Eradication Management Plan
e. Dam Dewatering Plan

The CEMP is to specify that erosion and sediment controls are to comply with the 'Managing Urban Stormwater: Soils and Construction (the Blue book) published by Landcom'.

13.18.1.8 Utility Services

Where new buildings or additions to buildings are proposed, the capacity or proposed capacity upgrade of relevant utilities services to meet the requirements of the development at the site shall be demonstrated to the satisfaction of the certifying authority. Before construction of any utility services, the relevant approvals from the service provider must be secured.

13.18.1.9 Bonds

Prior to the commencement of development the payment of security bonds are to be calculated and paid in accordance with Council's adopted Fees and Charges at the time of payment.

13.18.1.10 Maintenance Bond

Prior to the commencement of development the payment of security bonds are to be calculated and paid in accordance with Council's adopted Fees and Charges at the time of payment.

13.18.1.11 Public Art

Where the delivery of public art (or artwork and sculptures) is required on a lot or as part of future development at the site in accordance with a concept development approval from Council; an implementation strategy for provision of the relevant the public art in accordance with the approval must be provided to the satisfaction of the certifying authority

13.18.2 Conditions Applying During The Works

13.18.2.1 Standard Hours of Construction

Construction may only be carried out between 7.00 am and 6.00 pm on Monday to Friday, or between 8.00 am and 1.00 pm on Saturdays, and no construction is to be carried out at any time on a Sunday or a public holiday.

13.18.2.2 Work Outside Standard Hours of Construction

1. Work may be carried out outside the standard hours for construction if the work only generates noise that is:
   a. no louder than 5 dB(A) above the rating background level at any adjoining residence in accordance with the Interim Construction Noise Guideline (ISBN 978 1 74232 217 9) published by the Department of Environment and Climate Change NSW in July 2009, and
   b. no louder than the noise management levels specified in Table 3 of that guideline at other sensitive receivers.
2. Work may be carried out outside the standard hours for construction:
   a. for the delivery of materials—if prior approval has been obtained from the NSW Police Force or any other relevant public authority, or
   b. in an emergency, to avoid the loss of lives or property or to prevent environmental harm, or
   c. unless otherwise agreed with the relevant local Council.

13.18.2.3 Compliance with Plans

Works must be carried out in accordance with the plans and specifications to which the complying development certificate relates.

13.18.2.4 Demolition

1. Any demolition must be carried out in accordance with AS 2601—2001, The demolition of structures.
2. Before commencing any demolition or excavation works, the person having the benefit of the complying development certificate must obtain a dilapidation report on any part of a building that is within the zone of influence of any relevant demolition works. If the person preparing the report is denied access to the building for the purpose of an inspection, the report may be prepared from an external inspection.

13.18.2.5 Maintenance of Site

1. All materials and equipment must be stored wholly within the work site, but outside of any tree protection zone of trees listed for retention within the complying development application, unless an approval to store them elsewhere is held.
2. Waste materials (including excavation, demolition and construction waste materials) must be managed on the site and then disposed of at a waste management facility.
3. Copies of receipts stating the following must be given to the certifying authority:
    a. the place to which waste materials were transported,
    b. the name of the contractor transporting the materials,
    c. the quantity of materials transported off-site and recycled or disposed of.
4. Any run-off and erosion control measures required must be maintained within their operating capacity until the completion of the works to prevent debris escaping from the site into drainage systems, waterways, adjoining properties and roads.
5. During construction:
    a. all vehicles entering or leaving the site must have their loads covered, and
    b. all vehicles, before leaving the site, must be cleaned of dirt, sand and other materials, to avoid tracking these materials onto public roads.
6. At the completion of the works, the work site must be left clear of waste and debris.

13.18.2.6 Earthworks

1. Any earthworks (including any structural support or other related structure for the purposes of the development):
    a. must not cause a danger to life or property or damage to any adjoining building or structure on the lot or to any building or structure on any adjoining lot, and
    b. must not redirect the flow of any surface or ground water or cause sediment to be transported onto an adjoining property, and
    c. that is fill brought to the site, it must contain only virgin excavated natural material (VENM) as defined in Part 3 of Schedule 1 to the Protection of the Environment Operations Act 1997, and
    d. that is excavated soil to be removed from the site—must be disposed of in accordance with any requirements under the Protection of the Environment Operations (Waste) Regulation 2005.
2. Any excavation must be carried out in accordance with Excavation Work: Code of Practice (ISBN 978-0-642-785442 [PDF] and ISBN 978-0-642-785459 [DOCX]), published in July 2012 by Safe Work Australia.
3. Earthworks must not be undertaken within the tree protection zone of a tree listed for retention within the complying development application.

13.18.2.7 Drainage Connections

If the work is the erection of, or an alteration or addition to, a building, the roof stormwater drainage system must be installed and connected to the local or regional drainage system by gravity.

13.18.2.8 Contamination Discovered During Works

1. If during works on the land comprising the site, the land is found to be contaminated, within the meaning of the Contaminated Land Management Act 1997:
   a. all works must stop immediately, and
   b. the Environment Protection Authority and the council must be notified of the contamination, where required.
2. Land is found to be contaminated for the purposes of this clause if the person having the benefit of the complying development certificate or the certifying authority knows or should reasonably suspect the land is contaminated.

Note - Depending on the nature and level of the contamination, remediation of the land may be required before further work can continue. This will need to be undertaken in accordance with the requirements of , State Environmental Planning Policy (Resilience and Hazards) 2021.

13.18.2.9 Archaeology Discovered During Works

1. If any object having interest due to its age or association with the past is uncovered during the course of the work:
   a. all work must stop immediately in that area, and
   b. the Office of Environment and Heritage must be advised of the discovery.

Note - Depending on the significance of the object uncovered, an archaeological assessment and excavation permit under the Heritage Act 1997 may be required before further work can continue.

13.18.2.10 Aboriginal Objects Discovered During Works

1. If any Aboriginal object (including evidence of habitation or remains) is discovered during the course of the work:
   a. all excavation or disturbance of the area must stop immediately in that area, and
   b. the Office of Environment and Heritage must be advised of the discovery in accordance with section 89A of the National Parks and Wildlife Act 1974.

Note - If an Aboriginal object is discovered, an Aboriginal heritage impact permit may be required under the National Parks and Wildlife Act 1974.

13.18.2.11 When a Survey Certificate is Required

1. If any part of the work is the erection of a new building, or an alteration or addition to an existing building, that is located less than 3m from the lot boundary, a survey certificate must be given to the certifying authority:
   a. before any form work below the ground floor slab is completed, or
   b. if there is no such form work—before the concrete is poured for the ground floor slab.
2. The survey certificate must be prepared by a registered land surveyor and show the location of the work relative to the boundaries of the site.

13.18.3 Conditions Applying Before the Issue of an Occupation Certificate

13.18.3.1 Vehicular Access

If the work involves the construction of a vehicular access point, the access point must be completed before the occupation certificate for the work on the site is obtained.

13.18.3.2 Utility Services

1. If the work requires alteration to, or the relocation of, utility services on, or adjacent to, the lot on which the work is carried out, the work is not complete until all such works are carried out.
2. If the work is the subject of a notice of requirements for water supply or sewerage services (or both) by a water utility or an entity authorised by the utility, the work must be satisfactorily completed, and any monetary contributions required to be paid to the relevant water supply authority must be paid before the occupation certificate is issued.
3. If the work is the subject of a compliance certificate under Section 73 of the Sydney Water Act 1994, the work must be satisfactorily completed, and any monetary contributions required to be paid to the Sydney Water Corporation must be paid before the occupation certificate is issued.

13.18.3.3 Mechanical Ventilation Systems

If the work includes a mechanical ventilation system that is a regulated system within the meaning of the Public Health Act 2010, the system must be notified as required by the Public Health Regulation 2012, before an occupation certificate (whether interim or final) for the work is issued.

13.18.3.4 Food Business

If the work relates to a food business within the meaning of the Food Act 2003, the food business must be notified as required by that Act, or licensed as required by the Food Regulation 2010, before an occupation certificate (whether interim or final) for the work is issued.

13.18.3.5 Operational Environmental Management Plan

Tenants for new buildings or change of uses proposals progressed under this Code must prepare an Operational Environmental Management Plan (OEMP) developed in accordance with contemporary standards and in regard to relevant mitigation measures that would be applicable to the prospective occupant's operation, as outlined in the Framework Construction Environmental Management Plan for the site (prepared by SLR), which is referenced in Section 12.4 of the Master Plan.

The OEMP shall then be verified by an independent environmental practitioner to the satisfaction of the certifying authority prior to issue of an Occupation Certificate. The author of the OEMP must have a bachelor's degree or higher in environmental management, environmental science or related discipline and be independent environmental practitioners of the project.

The independent environmental practitioners, including technical specialists engaged to prepare the OEMP and Sub-Plans must provide a written declaration of their independence from the project.

13.18.3.6 Engineering Certificate

A certificate by a qualified engineer must be provided to the principal certifying authority, before the principal certifying authority carries out the final inspection for new buildings, certifying that the development has satisfactory design and structural integrity. The certificate must be prepared by a qualified engineer with expertise in the field to which the certificate relates.

13.18.4 Conditions Applying Before Issue of Subdivision Certificate

13.18.4.1 Subdivision Drawings and Documentation

Prior to the issuing of a Subdivision Certificate for any subdivision under Section 13.6 of this Code, the following is required to be submitted to the Certifying Authority:

1. Work as Executed (WAE) drawings of all civil works shall be provided. The WAE drawings shall:
   a. Be marked in red on copies of the stamped complying development certificate drawings signed, certified and dated by a registered surveyor or the design engineer; and
   b. Clearly indicate the 1% Annual Exceedance Probability flood lines (local and mainstream flooding); and
   c. Be accompanied by plans indicating the depth of fill for the entire development site; and
   d. Show the finished surface levels of the access road, internal roads, drainage, and any areas of fill.
2. Structural Engineer's construction certification of all structures is to be provided, including any retaining walls constructed in accordance with Section 13.8 of this Code.
3. Documentation confirming that any required street trees and landscaping within roadway verges required under Section 13.9 of this Code have been erected.
4. All roadworks, road infrastructure and traffic management works including construction of roads to relevant widths, installation of regulatory/advisory line-marking, signage, traffic calming devices and street lighting are to be completed in accordance with Section 13.11 of this Code.
5. Documentation for all road pavement materials used demonstrating compliance with Section 13.11 of this Code.
6. Documentation confirming that the stormwater works and infrastructure have been constructed in accordance with Section 13.13 of this Code.
7. CCTV footage for all drainage within future public roads and public land is to be made available.
8. Surveyor's Certificate certifying that all pipes and services are located wholly within the property or within appropriate easements and that no services encroach boundaries;
9. Written evidence of suitable arrangements with Sydney Water (Section 73 Compliance Certificate) for the supply of water and sewerage services to the development is to be submitted to the certifying authority prior to the issue of a Subdivision Certificate.
10. Written evidence of connection to electricity and telecommunications services by the installer and/or relevant utility provider.
11. Street signage must be erected in accordance with Council requirements.
12. After the completion of the subdivision works and before the subdivision certificate for the site is obtained, copies of the plans approved in relation to the issue of the complying development certificate are to be provided to the principal certifier that:
    a. are marked in red to show how the works as executed depart from those approved plans; and
    b. are certified and dated by a registered surveyor or design engineer.
13. Any lots subsequently identified during the subdivision as requiring easements or restrictions shall be suitably burdened on the final plan of subdivision.
14. The plan of subdivision that is to be lodged with the Registrar-General and an instrument under section 88B of the Conveyancing Act 1919 must be provided to the certifying authority before the subdivision certificate for the site is obtained.

13.18.4.2 Evidence of Matter Relating to Services and Works

Prior to issuing a Subdivision Certificate for strata subdivision under Section 13.14 of this Code for a building:

1. A survey certificate prepared by a registered surveyor that certifies that the services to each lot are located on the lot or on appropriate easements must be provided to the certifying authority before the subdivision certificate for the site is obtained.
2. After the completion of the subdivision works and before the subdivision certificate for the site is obtained, copies of the plans approved in relation to the issue of the complying development certificate are to be provided to the principal certifier that:
    a. are marked in red to show how the works as executed depart from those approved plans, and
    b. are certified and dated by a registered surveyor or design engineer.
3. The plan of subdivision that is to be lodged with the Registrar-General and an instrument under section 88B of the Conveyancing Act 1919 must be provided to the certifying authority before the subdivision certificate for the site is obtained.

13.18.5 Operational Requirements

13.18.5.1 Hours of Operation

Hours of operations for new development within the site will be 24 Hours – 7 days a week.

13.18.5.2 Lighting

1. All new external lighting must:
   a. comply with AS/NZS 4282:2019, Control of the obtrusive effects of outdoor lighting, and
   b. be mounted, screened and directed in a way that it does not create a nuisance or light spill on to buildings on adjoining lots or public places.
   c. Comply with the requirements of the State Environmental Planning Policy (Precincts—Western Parkland City) 2021 in relation to lighting and airport safeguarding.

2. Lighting at vehicle access points to the development must be provided in accordance with the following standards:
   a. AS/NZS 1158.0:2005, Lighting for roads and public spaces, Part 0: Introduction,
   b. AS/NZS 1158.1.1:2005, Lighting for roads and public spaces, Part 1.1: Vehicular traffic (Category V) lighting—Performance and design requirements,
   c. AS/NZS 1158.1.2:2010, Lighting for roads and public spaces, Part 1.2: Vehicular traffic (Category V) lighting—Guide to design, installation, operation and maintenance,
   d. AS/NZS 1158.2:2020, Lighting for roads and public spaces, Part 2: Computer procedures for the calculation of light technical parameters for Category V and Category P lighting,
   e. AS/NZS 1158.3.1:2020, Lighting for roads and public spaces, Part 3.1: Pedestrian area (Category P) lighting—Performance and design requirements,
   f. AS/NZS 1158.4:2015, Lighting for roads and public spaces, Part 4: Lighting of pedestrian crossings,
   g. AS/NZS 1158.5:2014, Lighting for roads and public spaces, Part 5: Tunnels and underpasses.

13.18.5.3 Loading and Unloading of Good or Materials

Loading and unloading goods or materials must not be carried out on a public road.

13.18.5.4 Noise

Noise generated by future development must not exceed the levels for the relevant lot as specified in Section 6.11.1 of the Master Plan and the Noise Policy for Industry (2017).

13.18.5.5 Use of Driveways and Parking Areas

1. All driveways and parking areas must be unobstructed at all times.
2. Except as otherwise permitted by an existing condition of the most recent development consent (other than a complying development certificate) that applies to the premises, driveways and car spaces—
   a. must not be used for the manufacture, storage or display of goods, materials or any other equipment, and
      – must be used solely for vehicular access and for the parking of vehicles associated with the use of the premises.

13.18.5.6 Landscape Area (Planting and Maintenance)

1. Any tree or shrub that fails to establish within 2 years of the initial planting date must be replaced with the same species of tree or shrub, and
2. All landscaped areas on the site must be maintained on an on-going basis.
3. A plan of management for new public open space or local parks must be agreed with Council prior to dedication of the land to Council by the developer.

Note: Sydney Water will be responsible for the ongoing maintenance of riparian corridors and stormwater basins which are serving the regional stormwater drainage function.

13.18.5.7 Storage of Dangerous Goods

1. The quantities of dangerous goods stored and handled within the development must be below the placard quantities listed in Schedule 11 of the Work Health and Safety Regulation 2017 (NSW) at all times.
2. Storage and handling of dangerous goods for the development, as defined by the Australian Dangerous Goods Code, must be strictly in accordance with:
   a. the requirements of all relevant Australian Standards; and
   b. for liquids, the NSW EPA's Storing and Handling of Liquids: Environmental Protection – Participants Manual.
3. In the event of an inconsistency between the requirements of conditions Condition 2(a) and Condition 2(b), the most stringent requirement must prevail to the extent of the inconsistency.

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14

DESIGN QUALITY STRATEGY

14.1 Overview

This Design Quality Strategy is set up as a framework for the assessment of the design quality. It sits within the Master Plan and is subject to its development controls and recognise country considerations (set out above) forming an overall approach to design quality.

This Strategy is prepared in response to the Master Plan Requirements issued by DPHI in September 2022, along with the requirement in Section 4.30 of the WPC SEPP to demonstrate to the TAP and DPHI that the Master Plan adequately provides for assessment of the design quality of the future development.

It is proposed to adopt a principle-based approach to design quality. This is set out within this Strategy and focuses on design quality outcomes. To guide this process a design quality hierarchy approach is proposed to ensure an appropriate review of the design quality for future development involving new buildings within the Site.

This involves the classification of future development in terms of location (either Enterprise and Industry or Local Centre – see Structure Plan at Figure 5), along with the likely height, bulk and scale of the proposal. This results in larger or more prominent developments requiring a greater level of rigour and scrutiny in terms of the proposed level of design quality.

The Design Quality Strategy provisions and controls are to be considered for all development within the IPG site, in conjunction with the Master Plan provisions and the DCP. In the event of an inconsistency between the DCP and the Master Plan and Design Quality Strategy, the Master Plan and Design Quality Strategy prevails.

The Design Quality Strategy (Section 14 of the Master Plan), together with the Master Plan, the Complying Development Code (Section 13 of the Master Plan) and the DCP provides guidance to all development within the IPG site to ensure design quality can be achieved.

Development under all planning pathways within the IPG site is to consider the provisions and controls within the Master Plan, which include the Design Quality Strategy principles and benchmark solutions. This includes development seeking approval through the complying development pathway

The Design Quality Strategy includes the Design Quality Review Process which outlines the design review process and requirements for different scales of development and different locations within the site. All development within the IPG site must comply and considered all Design Quality controls and principles in addition to the Master Plan controls.

The Complying Development provisions, and the Design Verification Checklist are bespoke for development assessed through the Complying Development pathway.

14.2 Design Quality Review Process

There are series of proposed Tiers within the design quality hierarchy for new buildings as follows:

- **Small Scale** – Design Quality and Design Verification by registered architect (as defined in the EP&A Regulation 2021).
- **Medium Scale** – Design Quality and Design Verification by registered architect, with one (1) peer review from an independent architect.
- **Landmark Sites** – Design Quality and Design Verification by an architect, with review from the Design Review Panel.

The various tiers of the Design Quality Review process and documentation requirements are set out within Table 23 of this report.

The Landmark Site locations are provided in Figure 112.

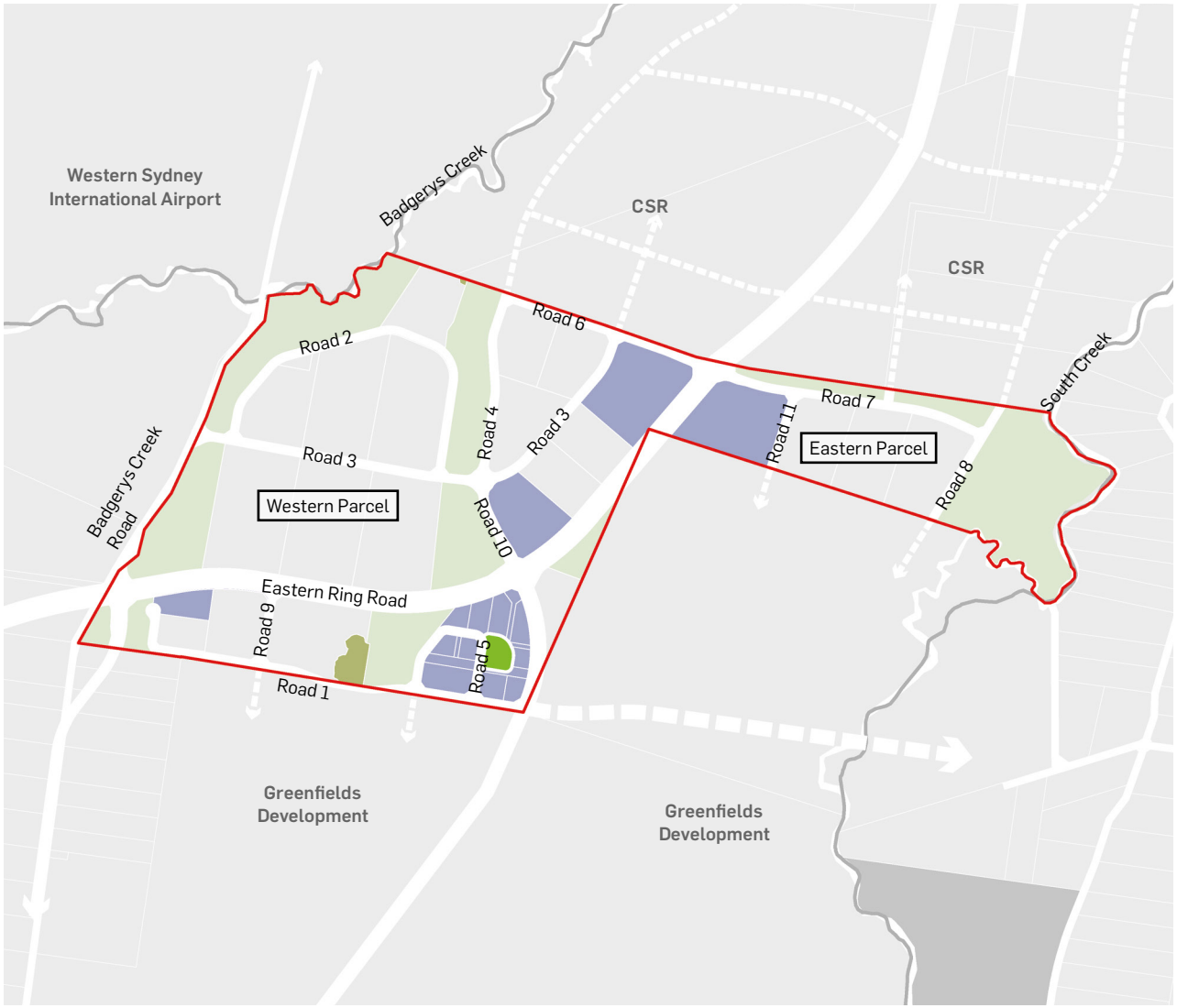


Figure 112 Landmark Site Locations

Source: Urbis

14.3 Design Review Panel

The purpose of the Design Review Panel (DRP) is to ensure design quality and functional requirements are achieved for large scale development within the Master Plan. The DRP reviews development applications or complying development for enterprise and industrial development identified in Landmark Site locations, in accordance with Figure 112.

The DRP review process is only to ensure the design components, elements and principles of the Design Quality Strategy are met by the proposed development.

Variations to controls can be considered subject to design merit and a superior planning and design outcome being achieved.

Each project is required to attend a maximum of 2 review sessions with the DRP where formal comments are provided to the proponent in the form of a design advice letter. The proponent is required to respond to design advice letter as part of the design resolution.

The DRP is relevant for development in Landmark Site locations, as detailed in Table 23.

14.3.1 Design Review Panel Procedures

Functions of the DRP

- DRP members are selected by the proponent from the list of GANSW panel members.
- The DRP is to play an advisory role and is not a decision-making body.
- DRP members are selected by IPG based on their qualifications and experience, and in the absence of any real or potential pecuniary or non-pecuniary conflict of interest.

Representation of the DRP

- The DRP must consist of a minimum of two (2) architects (DRP members must have demonstrated experience working on industrial typologies.)
- For commercial uses, DRP members must have demonstrated experience working on commercial typologies
- The DRP must consist of one (1) landscape architect.
- The DRP is to be led by a Chairperson who is a member of the DRP selected by IPG from the list of GANSW panel members. The DRP member who will undertake the role of Chairperson will be advised in advance that they will be undertaking the role of Chairperson.

Roles and Responsibilities of the DRP

- Prior to each DRP meeting, each DRP member is required to:
  - receive copies of the development proposal/ application and Panel Briefing Report;
  - complete a thorough review of the development proposal/application and Panel Briefing Report;
  - attend a site visit of the subject site, or if this is not possible, undertaken a desktop site inspection (i.e. via Google Earth/Maps) to become familiar with the site including its context and conditions; and
  - declare any conflict/s of interest.

Documentation Requirements for the DRP

- The following documentation is to be provided to the selected DRP members electronically at least five (5) business days before the meeting:
  - The meeting agenda;
  - The Panel Briefing Report from the Registered Architect designing the scheme.
  - Architectural and Landscape Architectural (i.e. including Public Domain) drawings in A3 size; and
  - All other relevant information.

Table 23 Design Quality Review Process

	SCALE		
Development Category And Design Quality Review Process	**Small Scale**	**Medium Scale**	**Landmark Sites**
Development Threshold	Enterprise & Industry Maximum gross footprint < 10,000sqm, and/or HOB < 18m Commercial GFA < 5,000sqm, and/or HOB: <20m (up to 3 storeys including rooftop communal space)	Enterprise & Industry Maximum gross footprint >10,000sqm, and/or HOB up to 24m Commercial GFA ≤ 5,000sqm – < 15,000sqm, and/or HOB ≥ 20m – < 26m (≥ 4 – < 8 storeys including rooftop communal space)	Landmark Sites as mapped in Figure 112.
Responsible for Design Quality Review	**Architect** • A Registered Architect designing the scheme is responsible for verifying compliance with the Design Quality Strategy and Design Verification Checklist. • An Independent Architect Peer Review or Design Review Panel is not required.	**Independent Registered Architect Peer Review** • A Registered Architect designing the scheme is responsible for verifying compliance with the Design Quality Strategy and Design Verification Checklist. • The Independent Architect is selected by the proponent to peer review and verify compliace with the Design Quality Strategy and Design Verification Checklist. • For enterprise and industrial uses, the Independent Architect must have demonstrated experience working on industrial typologies. • For commercial uses, the Independent Architect must have demonstrated experience working on commercial typologies.	**Design Review Panel (DRP)** • A Registered Architect designing the scheme is responsible for verifying compliance with the Design Quality Strategy and Design Verification Checklist. • The DRP Panel is required to review the Registered Architect scheme and verification. • DRP members are selected by the proponent from the list of GANSW panel members. • The DRP must consist of a minimum of two (2) architects (DRP members must have demonstrated experience working on industrial typologies.) • For commercial uses, DRP members must have demonstrated experience working on commercial typologies • The DRP must consist of one (1) landscape architect.

	SCALE		SITE LOCATION
Development Category And Design Quality Review Process	**Small Scale**	**Medium Scale**	**Landmark Sites**
Design Quality Requirement	These buildings would be approved through the CDC Framework (where it meets the development standards), and accompanied by a Design Statement identifying compliance with the Design Verification Checklist and consideration of the relevant DCP controls and Design Quality Strategy outcomes.	An Independent Architect (independent of the original author) to peer review and verify that the project satisfies the Design Quality Strategy. These buildings have less complexity to the design and would be approved through the CDC Framework (where it meets the development standards), and accompanied by a Design Statement identifying compliance with the Design Verification Checklist and consideration of the relevant DCP controls and Design Quality Strategy outcomes.	Design Review panel to verify design quality in accordance with Design Quality Strategy.
Documentation Required for DA/SSDA/CDC	Documentation required for a Small Scale development include: • Design Verification Checklist compliance table to be prepared by the Project Architect. • Design Statement prepared by the Project Architect. The Design Verification Checklist and Design Statement is to be prepared and assessed in conjunction to one another. The Design Statement provides additional justification and context on the analysis and design that is not provided in the Design Verification Checklist. For CDC, any non-compliance with the Design Verification Checklist will trigger the need for a DA/SSDA.	Documentation required for a Medium Scale development include: • Design Verification Checklist compliance table to be prepared by the Project Architect. • Design Review Statement to be prepared by the Independent Peer Review Architect. • Design Verification Report to be prepared by the Project Architect to address Peer Review feedback. The Design Verification Checklist and Design Statement is to be prepared and assessed in conjunction to one another. The Design Statement provides additional justification and context on the analysis and design that is not provided in the Design Verification Checklist.	Documentation required for development on Landmark Site include: • Panel Briefing Report to be prepared for the DRP. • Design Presentation to be prepared for the DRP. • Design Review Statement to be prepared by the DRP. • Design Verification Report to be prepared by the Project Architect to address DRP feedback. The Panel Briefing Report is prepared by the Registered Architect to present the scheme and provide details of the design evolution. The Design Verification Checklist and Design Statement is to be prepared and assessed in conjunction to one another. The Design Statement provides additional justification and context on the analysis and design that is not provided in the Design Verification Checklist.

	SCALE		SITE LOCATION
Development Category And Design Quality Review Process	**Small Scale**	**Medium Scale**	**Landmark Sites**
Documentation Required for DA/SSDA (continued)		The Design Verification Report summarises the Independant Peer Review assessment of the proposal and provides an assessment as to whether the proposal sufficiently demonstrates design quality, as outlined in the Design Quality Strategy from the perspective of the Independant Peer Reviewer. For CDC, any non-compliance with the Design Verification Checklist will trigger the need for a DA/SSDA.	The Design Verification Report summarises the DRP assessment of the proposal and provides an assessment as to whether the proposal sufficiently demonstrates design quality, as outlined in the Design Quality Strategy from the perspective of the DRP. For CDC, any non-compliance with the Design Verification Checklist will trigger the need for a DA/SSDA.

	SCALE		SITE LOCATION
Development Category And Design Quality Review Process	**Small Scale**	**Medium Scale**	**Landmark Sites**
Typical Development			
Functional Requirement	• Can accommodate other smaller scale users such as bespoke breweries, startup business, automated distribution, small specialised manufacturing facilities, showrooms, bulky goods retail and self-storage facilities.	• Warehouse facilities and distribution centres with ancillary offices. • Data centres. • Manufacturing facilities • Laboratories. • Multi-tenanted warehouses. • Food processing, cold storage and distribution. • Large scale warehousing and logistics projects, specialized manufacturing Facility, robotic fulfilment + distribution centres, cold storage, food processing, storage + distribution. • High Bay: Highly specialized automated distribution facilities. • Data centres.	This will generally include: • Small, medium or large scale developments in landmark locations. • Developments within key site locations do not warrant additional review processes or design competition, however require the applicable review process to consider the Landmark Site Design Quality Considerations detailed in Table 24.
Typical Commercial Developments	• Low-medium scale commercial buildings with ground retail activation.	• Medium scale commercial buildings with ground retail activation. • Large scale commercial buildings with ground retail activation. These commercial buildings would typically be larger format with larger floorplates, and longer retail frontages at the ground level.	• All commercial development within the local centre is identified as a landmark site.

	SCALE		
Development Category And Design Quality Review Process	**Small Scale Industrial**	**Medium Scale Industrial**	**Landmark Sites**
Precedents	• Switchyard, circa 1,500-5,000 sqm with multiple tenancies.  • Rohliq HQ, New Zealand, 7,000 sqm with single tenancy.  • Rohliq HQ, New Zealand, 7,000 sqm with single tenancy.	• FDC Grady, Erskine Park, 19,630sqm with 2 split tenancies.  • Kirsch Pharma, Germany, circa 20,000sqm with single tenancy.  • Bunnings Distribution Centre, New Zealand, circa 25,000sqm with single tenancy. 	• Snackbrand (High Bay), Orchard Hills with height over 37m.  • Coles Distribution Centre (High Bay), Kemps Creek with height over 36m. 

	SCALE		
Development Category And Design Quality Review Process	**Small Scale Industrial**	**Medium Scale Industrial**	**Landmark Sites**
Loading Facility	• Generally have narrower hardstands however, can vary up to 36m depending on the use. • Generally can accommodate medium or heavy rigid trucks with access for less frequent articulated vehicles.	• Single-sided hardstand measured between 36m to 40m in width, catering for articulated vehicles such as semi-trailers and B-doubles for easy manoeuvring. • Typically purpose built bespoke facilities, with either single sided or cross-dock loading facilities requiring hardstand on both sides of the warehouse. Hardstands can range from 36-50m and may also require additional space for the truck parking.	
Tenancy	• Consist of one or multiple tenancies with ancillary office annexed to each tenancy. • Typical ancillary office size measured approximately 10-30% of warehouse floor area.	• Generally consist of one tenancy however have the ability to be divided into multiple tenancies with a shared hardstand. • Subject to the size of the warehouse, ancillary office can be measured over circa 500sqm. • Consist of single tenancy only. • Ancillary office maximum gross footprint circa 500sqm and over.	

Source: SBA Architects

	SCALE		
Development Category And Design Quality Review Process	**Small Scale Industrial**	**Medium Scale Industrial**	**Landmark Sites**
Built Attributes	• May consist of one or series of compact warehouse modules organised along a hardstand or a driveway. • Small footprints mean buildings are more adaptable to irregular shaped sites. • Maximum gross footprint generally below 15,000sqm and less than 18m in height. • Has less complexity in design and can easily demonstrate adherence to the current master Plan, controls stipulated in the Design Verification process. • Awning may span from 3m to 25m over hardstand as weather protection for loading/ unloading operations.	• Large awnings spanning 15-35m over hardstand as weather protection for loading/ unloading operations. • Ancillary office is located in close proximity to the pedestrian and light vehicle entry point. • Maximum gross footprint generally between 15,000sqm to 50,000sqm with height range up to 24m or over 24m for high-bay warehousing. • Has less complexity in design and can easily demonstrate adherence to the current Master Plan, controls stipulated in the Design Verification process.	

Table 24 Key Site Design Quality Considerations (for Enterprise and Industry uses only)

Landmark Sites	Design Quality considerations
Landmark Site Locations	Developments within the Landmark Site map must deliver the following: **Built form** • Ancillary office or administration components of a warehouse building, if provided, must address the Eastern Ring road at the prominent corner and form the frontage to the intersection to create an urban interface and a more activated built form that encourages passive surveillance. • Where Ancillary Offices are not provided as part of the warehouse building, the architectural built form response must be modulated and height differences are mitigated through design interventions through defining private and public spaces, programmatic functions, feature walls or the use of colours and finishes. • The design of façades should strengthen passive surveillance and streetscape character. • External finishes should contain a mix of materials and colours to enhance the appearance of the façade and provide an attractive and varied streetscape. • Large expanses of wall or building mass should be relieved by the use of color articulation, variation in construction materials, fenestration or alternative architectural enhancements **Public Art** • Public art installations as per the Key Sites map to provide activation, visual amenity and to soften the built form interface with the public domain. For list of acceptable design solutions for interfaces, please refer to Architecture, Public Domain + Building Interfaces.

14.4 Design Quality Outcomes and Overview

The IPG Design Quality Strategy is underpinned by a series of design quality principles which respond to Master Plan Requirements design considerations. These overarching principles, each of which is defined by a series of design components, include:

1. Topography

2. Land Use

3. Cultural Heritage – Connecting with Country

4. Urban Built Form

5. Architecture

6. Sustainability; and

7. Public Domain.

Table 25 provides the outcomes and design elements for each of the overarching principles.

Table 25 Design Quality Approach

Design Quality Outcome	Design Element
Topography	
• Respond to the existing topographic condition where possible and refine the landform in a responsive and appropriate way to support the future development and the evolve of the Aerotropolis.	• Cut and Fill • Designed Levels
Land Use	
• Proposed land uses contribute to change in the urban context of the Aerotropolis Precinct responding to the future character and demand. • Flexibility of the land uses is considered to enable the future transformation in the long term. • Encourage appropriate use mix at the proposed local centre to address the potential opportunities and enhance the activity and vitality of the local centre.	• Development that can accommodate a range of uses in the following locations: – Local Centre – Enterprise and Industry areas
Cultural Heritage – Connecting with Country	
• Interpret the identified key cultural themes and integrate these with the urban design, landscape and architectural design.	• Riparian Corridors and public domain • Water landscape • Public Art • Placemaking / Way finding.

Design Quality Outcome	Design Element
Urban Built Form	
• Responsive built form to the broader urban and environmental context. • Built form and scale facilitate varied function and uses with flexibility to accommodate potential future changes, responding to the emerging and future requirements. • Setback requirements ensure the desired built form and spatial layouts.	<u>Enterprise and Industry</u> • Building Orientation • Building Alignment • Fencing <u>Local Centre</u> • Building Orientation/Building Alignment • Site Access • Street Activation/Awning
Architecture	
• Appropriate building bulk and scale, modulation, and height to respond to the existing or desired future character of the street and surrounding buildings. • Considered articulation of long facades to improve the streetscape. • Ensure the layout arrangements and the relationships between uses and functions maximise activation, visibility, clarity, and opportunities for passive surveillance. • Promote different design possibilities for street frontages to afford a diversity of use, users and street-level experience especially in the town centre.	<u>Enterprise and Industry</u> • Building Composition • Siting/Massing • Proportions/Materials • Colours <u>Local Centre</u> • Building Frontage/Street Frontage • Heights • Building Articulations/Materials • Colours.

Design Quality Outcome	Design Element
Sustainability	
• Implement sustainable design approaches and strategies into the urban design, architectural design and landscape. • Promote green and blue infrastructure to create a sustainable and resilient environment. • Facilitate and encourage active and other sustainable transport modes to minimise vehicle movement and parking.	• Active transport • Open space • Landscape • Public Domain • Riparian corridors and basins <u>Enterprise and Industry</u> • (Energy / Car Parking / Electrical Charging Capabilities / Heat Resilient / Bicycle Parking / Integration of Soft Landscaping <u>Local Centre</u> • (Energy / Deep Soil / Heat Resilient
Public Domain	
• Create a safe and well-connected pedestrian network to prioritise pedestrian and cycle movement. • Promote inclusive design solutions for the public domain. • Appropriate size and locations of the public domain with a range of diverse uses to meet daily needs and amenity. • Prioritise shared uses of the public domain	• Access Paths to Riparian Areas <u>Enterprise and Industry</u> • Fencing (Verge Planting) • Site Access + Street Activation <u>Local Centre</u> • Laneways and Plazas • Retention of Existing Trees • Verge Planting • Local Park

Table 26 Design Quality Assurance Summary Table

		SITE LOCATION		
		Not Landmark Site	Landmark Site	Design Quality Assurance
SCALE	Small			Project Architect
				Design Review Panel (DRP)
	Medium			Independent Registered Architect Peer Review
				Design Review Panel (DRP)
	Local Centre			Design Review Panel (DRP)

14.5 Design Quality Principles

This section provides a breakdown of design quality principles and each of the design elements for the Badgerys Creek Road Master Plan. The design elements are defined by design quality outcomes for future development within the IPG site and the criteria required to achieve design quality in accordance with Badgerys Creek Road Master Plan.

14.5.1 Topography

Design Statement

Future development respects the existing topography and minimises earthworks where possible.

Objectives

1. To minimise the impacts of development to the environmental functions and processes such as the water flow for drainage where possible and appropriate.
2. To balance the cut and fill to achieve better environmental and economic outcomes.
3. To refine the local topography to suit for large format enterprise and industry uses, major infrastructure, and public domain.
4. To retain and enhance natural features such as riparian corridors and protect distant views to the Blue Mountains where appropriate.

Table 27 identified the relevant design elements and design quality outcomes that are sought through this Strategy for topography.

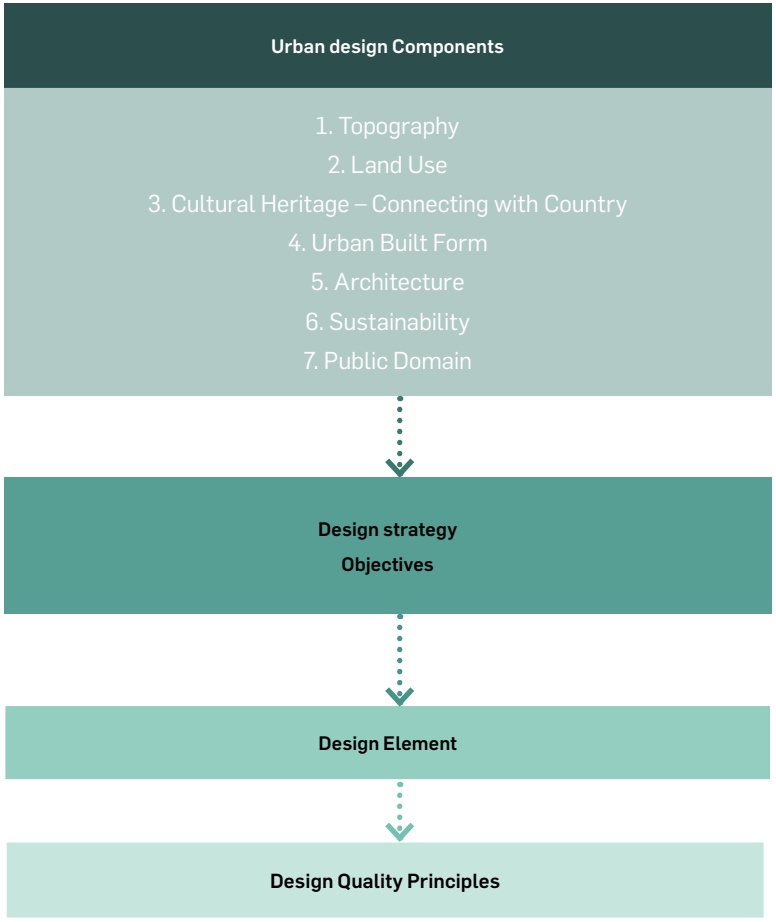


Table 27 Topography - Design Elements and Design Quality Principles

Design Element	Design Quality Principles
Cut and Fill	• The future landform is to respond to the physical character of the land and minimises the cut and fill.
Designed Levels	• The designed levels for development are to be suitable for a variety of enterprise and industry uses, especially the large footprint warehousing and logistics and transport needs. • The designed levels are to enable the controlled and safe conveyance of stormwater drainage and overland flows. • The designed levels are to enable major pedestrian and cycleway networks through the site, and extended connections to the surroundings. • The final levels are to respond to view lines towards landscape areas and riparian corridors where appropriate.

14.5.2 Land Use

Design Statement

Good design responds and contributes to its context. Context is the key natural and built features of an area, their relationship and the character they create when combined. It also includes social, economic, health and environmental conditions.

Objectives

1. To provide a consolidated Local Centre linked to public transport and major public open space.
2. To allow the sufficient distance between the Local Centre to other existing or proposed centres to ensure economic viability.
3. To encourage a mix of uses in the business and enterprise land and Local Centre to deliver employment diversity and additional land value.
4. To promote local amenity nodes with retail, amenity, and services for the local working community.
5. To allow flexibility and evolution of land uses and development to evolve as Aerotropolis precinct mature.

Table 28 outlines the design elements and outcomes for land use.

Table 28 Land Use - Design Elements and Design Quality Principles

Design Element	Design Quality Principles
Local Centre	• Create an activated and viable small scale Local Centre with high quality public realm and better public transport services.
Enterprise and Industry	• Encourage a mix of uses that respond to the objectives of the ENT zone through a flexible subdivision and super-lot strategy within the Master Plan. • Encourage employment uses and business-related services which are consistent with the location close to the WSI Airport, through the delivering a range of lot sizes and flexible height provisions for emerging industries. • Improve amenity and services for the future working community. • Flexibility to the land for a variety of enterprise, industry and warehousing uses, including high bay warehouse, and the future evolution of the Aerotropolis. • Amenity nodes should support passive surveillance and provide visual amenity within the enterprise and industrial precincts in the Master Plan through accommodating active land uses such as cafés, restaurants and shops for the daily needs of the local working community.

Figure 113 Proposed Land Use Master Plan

Source: SBA Architects

14.5.3 Connecting with Country

Design Statement

Utilising the GANSW Connecting with Country Framework and Elements of Designing with Country will ensure the environmental and social wellbeing of the site is addressed a way that will provide an enduring legacy for the place and community.

This project sits in a significant spot as it is close to the convergence of 3 different clan groups. Connecting to the broader context by acknowledging and representing the 3 clan groups; Dharug, Dharawal and Gandangara. This is a unique opportunity and further consultation with these 3 community groups could lead to key narratives and stories which could be interpreted on the site.

The site is part of an incredibly unique and diverse landscape that has existed in harmony with Dharug people for generations. Helping sustain Indigenous life and culture whilst the people cared for it, creating a long lasting reciprocal relationship. This rich landscape still exists today, and should be acknowledged and celebrated.

Objectives

1. Acknowledge Traditional Custodians and provide opportunities for Connecting with Country, Designing for Country and Caring for Country in all stages of planning for the Aerotropolis.
2. Development is designed in a way that Acknowledges Country and the interconnected nature of all elements of Country at the site and in the surrounding cultural landscape.
3. Ensure diverse opportunities for connection to Country are considered and implemented during the development planning and design processes through meaningful engagement with Aboriginal groups.
4. Create opportunities for capacity building and economic development for Aboriginal people and organisations across planning, design, construction and operation.
5. Development is designed to proactively allow for opportunities to connect to Country and for Aboriginal people to continue to care for Country.
6. Recognise and reflect Aboriginal Connection to Country by protecting and enhancing significant natural features in and around the site.
7. Protect and enhance the history and culture of the Aboriginal custodians of the land within the development of buildings and public spaces which facilitate cultural practices and Connection to Country.
8. Celebrate Aboriginal culture and language through Public Art and Placemaking across the site.

Table 29 Cultural Heritage - Design Elements and Design Quality Principles

Design Element	Design Quality Principles
Water Landscape	**Outcomes** • Development is to consider Aboriginal cultural elements such as waterways and landscape features, where relevant and appropriate. • The architectural design is to consider the form and colours of the waterways and landscape, where relevant and appropriate.
Convergence of Three Clans	• Development is to acknowledge and represent Dharug, Dharawal and Gandangara groups by interpreting key narratives and stories on the site. • Development must incorporate communal spaces that allow for gathering and interaction. • Acknowledging the diversity of flora and fauna in the area and the role they play in sustaining life. The design of communal spaces is to acknowledge the diversity of flora and fauna, where relevant and appropriate.
Community Driven	• The Landscape and Public Domain Design is to be developed and co-designed through the Designing with Country process. • The key themes including The Convergence of 3 Clans, Water Landscape and Community Driven (refer to Master Plan Section 5 Designing with Country), should help to drive the spatial and conceptual design.
Language, Naming and Wayfinding	• Acknowledge the Importance of Indigenous Language and Naming and facilitate the integration of Language across the site, with consideration to the theme of the three clans, where appropriate and suitable. • Landscape design and place making to incorporate and interpret the Aboriginal language, knowledge and art as design elements. • Public open space within the Master Plan is to consider opportunities for learning as a way of designing with Country (e.g., signage along riparian walking tracks, paving with co-designed motifs or engraving, etc.). • Enhance the cultural connection to place in development within the Master Plan by: – Incorporating local Aboriginal language to place names. – Incorporating the Aboriginal language, knowledge and art.

14.5.4 Urban Form

Design Statement

Good design achieves a scale, bulk and height appropriate to the existing or desired future character of the street and surrounding buildings.

The urban form of enterprise and industry development will contribute to placemaking within the IPG site by enhancing street frontages along internal roads and respond to view lines towards landscape areas and riparian corridors where appropriate.

The urban form within the Local Centre will be legible and contribute to a consistent street pattern which balances the street wall and integration with landscape. The Local Centre will be supported with active frontages and awnings which complements the streetscape character.

Objectives

Local Centre

1. To complement the scale of the Local Park and pedestrianised Promenade.
2. To contribute to the amenity of the Promenade, Local Park and laneways.
3. To create permeable built environment that ensure maximum pedestrian flows and view lines.
4. To respond to relevant CPTED principles (as identified in the CPTED Report prepared by Urbis – November 2023, that accompanies the Master Plan - https://www.planningportal.nsw.gov.au/draftplans/made-and-finalised/ipg-badgerys-creek-road-master-plan).

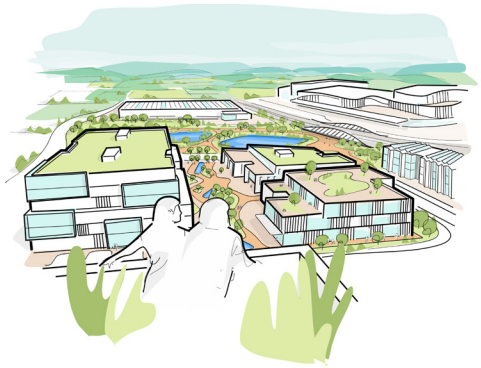


Figure 114 Example of building that allows vantage point for views over the Promenade, the Riparian Corridor and the Blue Mountain beyond.

Source: SBA Architects

Objectives

Enterprise and Industry

5. To identify key features within the estate.
6. To recognise the importance of existing creeks and associated natural environment.
7. To increase walkability within the estate in which the public domain is safe, enjoyable and inclusive.
8. Responsive built form to the broader urban and environmental context.
9. Built form and scale facilitate varied function and uses with flexibility to accommodate potential future changes, responding to the emerging and future requirements.
10. To respond to relevant CPTED principles (as identified in the CPTED Report prepared by Urbis - November 2023 that accompanies the Master Plan).

Figure 115 Example of building orientations towards the open space and road network as means of responding to the surrounding context.

Source: SBA Architects

Design Quality Outcomes

Table 30 and Table 31 below identify the main urban design elements and outcomes for the site for the Enterprise and Industry locations and the Local Centre.

Table 30 Urban Form (Enterprise and Industry) - Design Elements and Design Quality Principles

Design Element	Design Quality Principles
Building Orientation	• Industrial buildings should complement the streetscape and enhance passive surveillance to the street and riparian corridors. • Industrial buildings should be orientated to ensure solar access to open space and riparian corridors are protected and maintained where practical. • The orientation of industrial buildings can be adopted as a measure to meeting the acoustic requirements set out in Section 6.11.1 of the Master Plan. • The key creek-to-creek connection along prominent road corridors which link riparian corridors, particularly along Road 02 and Road 03 should be established.  **Figure 116** Rendered impression of acceptable design solutions to enhance passive surveillance by positioning the ancillary office strategically to overlook the internal roads within the industrial setting. • Creating an active engagement along the street interface which supports a natural outdoor environment should be considered. • Maximising views to the internal streets and/or riparian corridors for community enjoyment should be utilised.

Source: SBA Architects

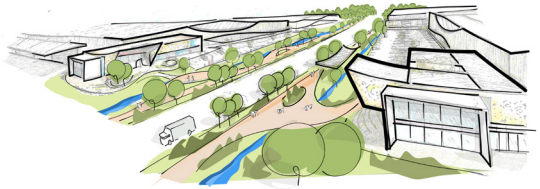
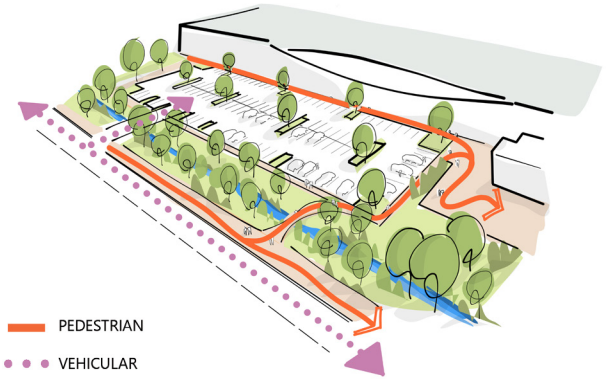
Design Element	Design Quality Principles
	 **Figure 117** Example of building aspect designed to maximise views towards the water feature and natural environment.
Building Alignment	• Reinforce the street edge of key creek-to-creek road connections, particularly Road 02 and Road 03 to establish a street pattern. • The development should enhance the street presentation whilst ensuring design criteria are met. • Development should provide generous area of landscaping along key creek-to-creek road connections.  **Figure 118** Sketch perspective of acceptable design solutions for articulation of large buildings and landscape design responding to the rain garden along the Creek-to-Creek Connection route identified in the Master Plan.

Table 31 Urban Form elements and principles – Local Centre

Design Element	Design Quality Principles
Access	• Pedestrian pathways within a lot should be utilised to ensure safe access to and from parking areas into the warehouse building or ancillary office. • Pedestrian pathways should be delivered on the shortest route possible, where achievable.  **Figure 119** Sketch diagram of an acceptable design configuration showing distinct and separate routes for both pedestrian and vehicles at entry point to establish safe access into the development and minimise crossing.
Potential for Through Site Links	The emergence of compact commercial typologies within the enterprise precinct must consider the opportunity for through-site links to enhance pedestrian permeability. Opportunities for through-site links must ensure security and site operations for adjoining warehouse building are not compromised.

Design Element	Design Quality Outcomes
Building Orientation	• Promoting a sense of belonging and ownership by encouraging casual observation and passive surveillance towards the promenade, Road 1, Road 5, Local Park, Laneways and Easement Road, should be carried out. • Maximising views to important surrounding natural features such as Local Park, Riparian Corridor and Blue Mountains beyond should be utilised.  **Figure 120** Example of facade articulation for commercial buildings fronting the open spaces and maximising views to the natural environment..

Source: SBA Architects

Design Element	Design Quality Outcomes
Building Alignment	• The building should reinforce the street edge while creating humanised urban forms that complement the scale of the Promenade, Laneway, Local Park and Easement Road. • Urban built form should seek to limit overshadowing on the public domain. • Buildings fronting the Promenade should incorporate a setback to facilitate greater natural light into the street. • Orientation should maximise views towards the Promenade, Local Park, Central Riparian Corridor, and Blue Mountains beyond. • The buildings should promote pedestrian activity along the laneways, Promenade and Easement Road. • See Figure 121 for the main built form controls for the Local Centre.

Figure 121 Rendered impression of an assemblage of indicative buildings with different scales and design defining the edge of laneway and contribute to the pedestrian permeability within the Local Centre.

Source: SBA Architects

Design Element	Design Quality Outcomes
Local Park	• Local park as the heart of the centre and a people-oriented public realm should be established. • Design the surrounding buildings to limit overshadowing of the local park. • Landscaped areas are to form a buffer along the interfaces with ERR and BMLR. • Seamlessly integrate laneways, a local park, promenade/plaza areas, and smaller amenity zones within building forecourts and prioritise pedestrian movement.

Figure 122 Rendered impression of indicative building massing separated from the Local Park by a road including landscape setback to maximise solar access to the park.

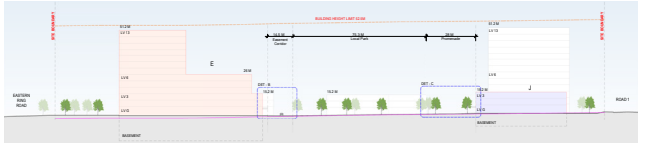


Figure 123 Indicative Section showing building ''stepped down'' towards the Local Park to minimise visual impact from the public domain.

Design Element	Design Quality Outcomes
Site Access and Street Activation	• Clear definition of public, semi-public and private domain should be utilised. • Active uses such as retail, commercial and lobbies should occupy the ground level to activate streetscape. 

Figure 124 Example of façade treatment that facilitates street activation and clear distinct public and private domain.

Source: SBA Architects

Design Element	Design Quality Outcomes
Awnings	• The footpath should be weather protected with awnings and contribute to the consistent street character without impeding on the street trees (See Figure 125). 

Figure 125 Provision of awning to encourage the frequent use of walkways and promote street activation.

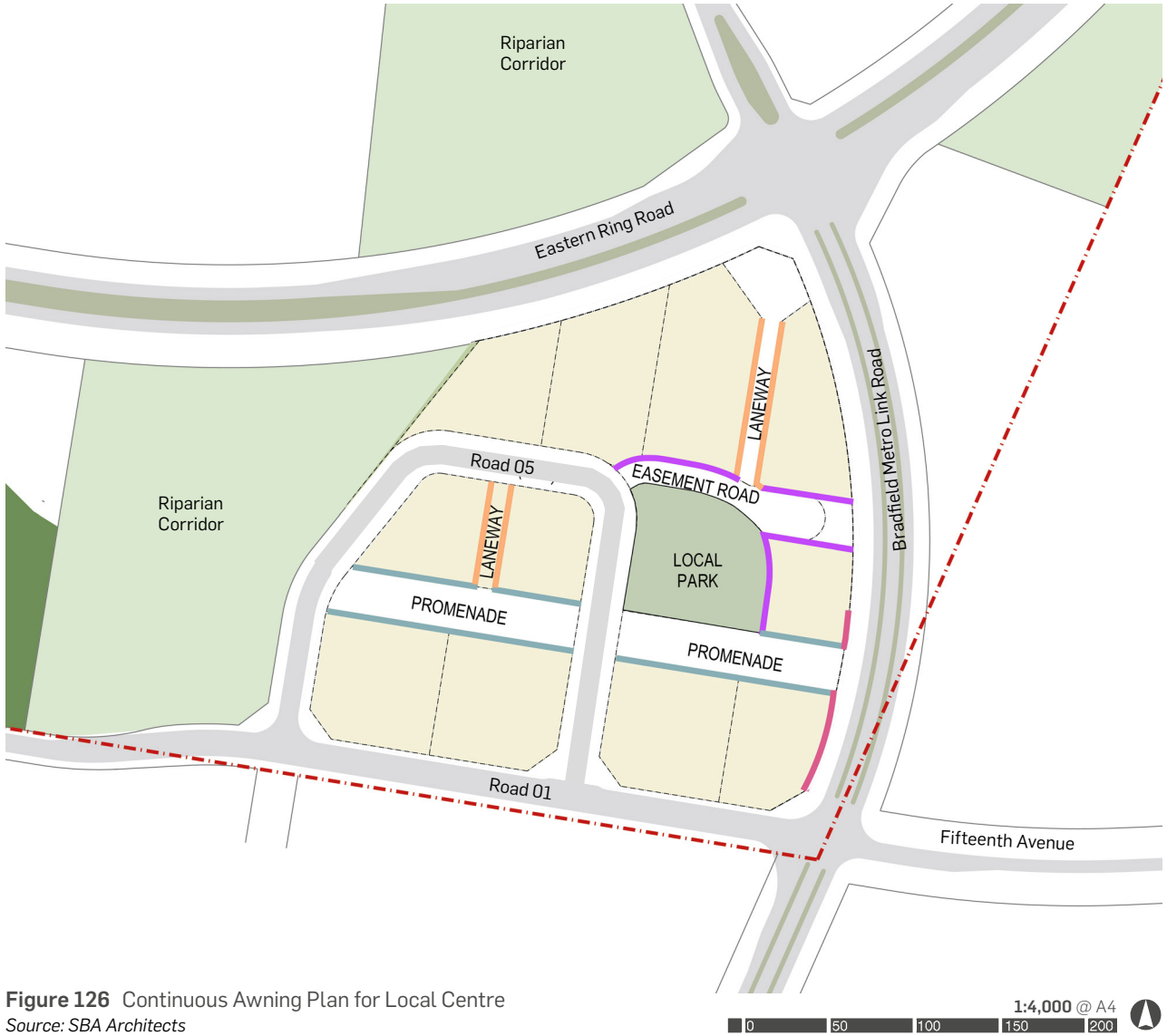


Figure 126 Continuous Awning Plan for Local Centre
Source: SBA Architects

14.5.5 Architecture

Design Statement

Enterprise and Industry

The development aims to create an efficient state-of-the-art industrial estate which supports a seamless integration into the natural landscape. Whilst the design of enterprise and industry buildings is largely dictated by functional requirements, the facade specific to industrial component should be constructed with durable materials suitable for the proposed use.

The industrial building lobbies or ancillary office components are seeking a departure from generic industrial forms- a welcoming and uplifting environment for workplace that serves as central amenity to the industrial component.

Deviating from a passive rectangular box, the design approach should contrast the office building, or other ancillary elements, and the industrial building.

Bringing human scale to the enterprise and industry setting, by reducing the scale to the public realm, elements such as ancillary offices, should help orientate tenants and visitors while mediating the transition from exterior landscape to interior workspaces.

Local Centre

The Local Centre is envisaged as a community-focused hub that offers the convenience of public and commercial services through civic and public connectivity.

The architecture is characterised by a sense of order along the Promenade defined by building alignment but allowing a diverse and interesting architecture ensemble.

The building forms should support a mix of retail, commercial spaces and potential hospitality and medical uses supported by an active public transport link.

Figure 127 Example of an ancillary office that expresses the finer grained design in contrast to the warehouse component.

Source: SBA Architects

Figure 128 A rendered impression of the Local Centre, showcasing how the collective buildings reinforce the edge of the pedestrianized Promenade.

Objectives

Enterprise and Industry

1. Appropriate building bulk and scale and modulation to respond to the existing or desired future character of the street and surrounding buildings.
2. Detailed design treatment to avoid continuous blank walls of the warehouse to improve the streetscape and pedestrian environment.
3. Ensure the layout arrangements and the relationships between uses and functions maximise activation, visibility, clarity, and opportunities for passive surveillance.
4. Promote different design possibilities for street frontages to afford a diversity of scale, users and street-level experience.
5. To reduce the visual and physical impact of the structure towards the public domain.
6. To create aesthetically pleasing façades that respond to the context such as the local First Nation communities, the Riparian Corridors or landscape features..

Local Centre

7. Architectural built forms should contribute to the finer-grained urban fabric of Local Centre.
8. Built forms contribute to diversity in architectural.
9. Higher density built forms to be designed to allow trees and landscape to flourish.
10. Promote different design possibilities for street frontages to afford a diversity of scale, users and street-level experience in the Local Centre.

Table 32 below sets out the main architectural elements and outcomes for the site.

Table 32 Architecture elements and principles – Enterprise and Industry

Design Element	Design Quality Principles
Building Composition	• Clear definition of hierarchies for planning of public, private and semi-public domain is to be considered. • Ancillary office should be highly visible from the street, support passive surveillance to the street and contribute to the streetscape character. • Buildings should contribute to wayfinding and avoid overtly reliant on signage to navigate within the estate. • Developments within the Master Plan are to be designed in accordance with the minimum building setbacks in Figure 129.

Figure 129 Example of a prominent presence of the ancillary office annexed to the warehouse, contributing to the streetscape character and wayfinding for pedestrians and vehicles alike.

Source: SBA Architects

Design Element	Design Quality Principles
Massing and Proportions	• Perceived bulk of industrial buildings fronting the street should be broken down to avoid long façades. • Where the enterprise and industry buildings adjoin the Riparian Corridor but not separated by a road reserve, the building scale and interfaces fronting the riparian should promote safe travel and pedestrian movement. • The development should have dedicated footpaths along the interface of the riparian corridor, where possible. 

Figure 130 Example of design solutions to break down long façades via juxtaposition of different functional programs and built forms.

Source: SBA Architects

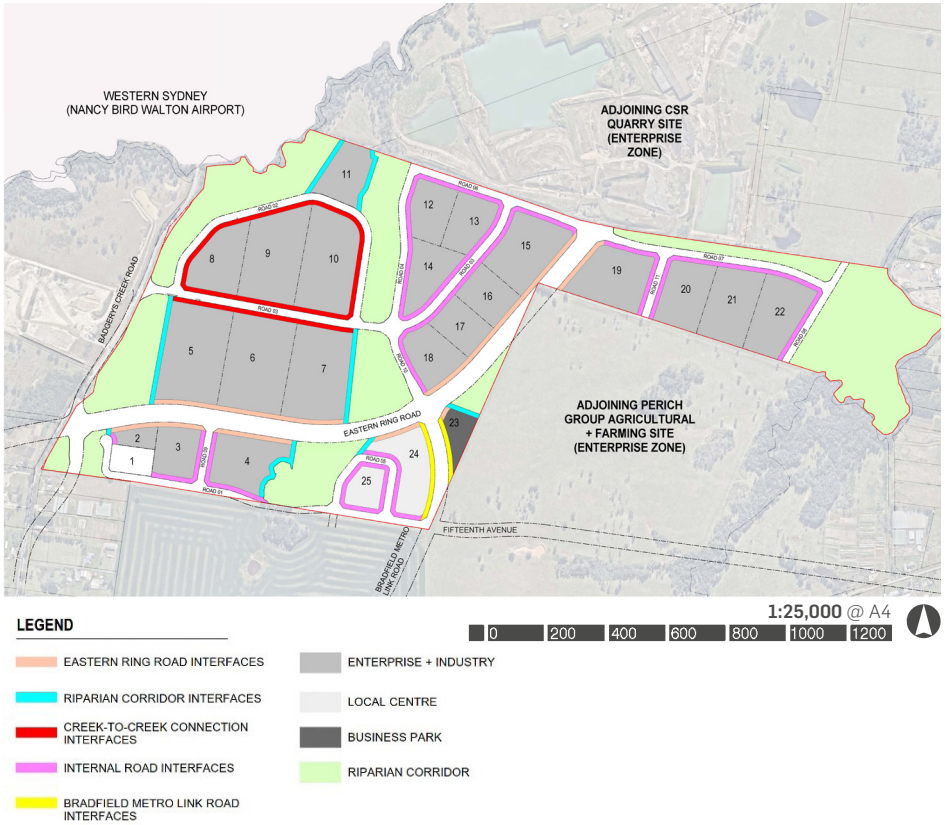


Figure 131 Lot Interface Plan
Source: SBA Architects

Source: SBA Architects

Figure 132 Example of an articulation of built form to enhance the interface presentation to the Riparian Corridor.

Figure 133 Example of a design solution using colours and materials to enrich the texture of the façade, improve street presentation and denote entry points.

Figure 134 Example of a public open space as amenity for the workers with industrial development providing passive surveillance.

Figure 135 Example of a strategic placement of ancillary office at the prominent location to mark corner, accentuate form and provide bearing.

Design Element	Design Quality Principles
Public Domain + Building Interfaces	• Generally, the subdivided lots are surrounded by 4 main bounding sides. In the context of the Master Plan, a typical lot can be defined by a combination of the following public interfaces (Figure 131): – Eastern Ring Road – Bradfield Metro Link Road – Creek-to-Creek Connections (Road 2 and 3) – Other Internal Roads, for example, Collector Road and Local Road – Riparian Corridors • Where loading areas within the Master Plan front a road or riparian corridor a 6m (for roads) and 5m setback (for riparian corridors) must be provided to ensure natural screening

The proposed industrial buildings occupying the lots in the Enterprise and Industry zone must be articulated to address these interfaces. Some of the acceptable design solutions relate to the siting of ancillary office, loading frontages, non-active frontages design, communal outdoor areas, and the use of materials and colours, as presented in the table across.

Design Element	Design Quality Principles
Siting of Ancillary Office  **Figure 136** Example of a warehouse ancillary office expressed as a finer grained component marking the entry point and functions as a gathering space for users.	• The ancillary office is more than just building with amenity serving the warehouses. It also functions as the main gathering point for workers and visitors alike, with architectural design that emphasizes both functionality and aesthetic appeal. Therefore, the placement of the ancillary office is critical as a focal point and is useful to mark pedestrian/ vehicular entries and reinforce corner frontages. • The ancillary can accommodate functions such as; · Meeting and Office workspace · Wet areas for both warehouse and office workers · End of trip facility · Lobby space · Lunchroom area • If the building has an ancillary office, the design must meet the following requirement; – The siting of the ancillary office is subject to the following order of importance; · Key Sites (Figure 112) · Riparian Corridors where practical · Creek-to-Creek Connection · Internal Roads – The use of colours, materials and texture are critical to: · Remediate the scales between the warehouse and ancillary office and create a cohesive design. · Express the finer-grained character of the office component.

Source: SBA Architects

Design Element	Design Quality Principles
Loading Frontages  **Figure 137** Example using cantilevered awning, roller doors and change in colours and materials to highlight different zones of activities within the loading areas.	• The loading/ unloading interfaces are generally lined with roller doors for trucks to load/ offload goods. • In many circumstances, a dock office will also be provided. Workers use the dock office to oversee the activities on the hardstand. • Some large format/ high bay may have 2x loading sides, serving incoming and outgoing deliveries. • The associated activities help to establish passive surveillance along the immediate interface. • The loading areas must meet the following requirements; – Weather protection over the loading/ unloading activities must be provided to ensure an adequate working condition. – Apply change in materials and colours that are durable to express different activities and zones.

Design Element	Design Quality Principles
Non-active Frontage with Interplay of Colours, Materials and Finishes  **Figure 138** Example of a building façade articulated with distinct combination of colours to respond to the public open space.  **Figure 139** Bio-swaled parking in the landscape, when paired with the warehouse wall featuring patterns and rich texture, can create a visually appealing and environmentally friendly interface.	• Depending on the nature of the logistics operation, there may be non-active façades. Frontages with no loading activities parking or ancillary office are generally considered as Non-Active Façades. • However, there are opportunities treat the façade to create visual interest and enrich the interfaces. These include but not limited to; – Use of different materials, finishes and colours to modulate forms and mitigate building heights – Landscape elements such as trees, shrubs etc. to soften built forms.  **Figure 140** Example of a façade treatment with mixed of materials to help modulate built forms, break down scales and create interesting dialogue with the immediate surrounding environment.

Source: SBA Architects

Design Element	Design Quality Principles
On-Lot Landscape Strategies within Landscape Setback.	• All four boundary interfaces of a lot occupied for industrial use must have landscape elements within the landscape setback stipulated in the Design Quality Strategy and DCP. • The landscape elements may include the followings; – Rain garden – Parking with planter beds – Tree canopies – Low vegetations – Shade for electrical charging car bay – Walkways

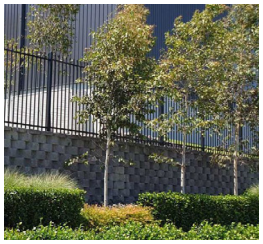


Figure 141
Example of the planting of trees, retaining walls and fencing between lots as part of the landscape elements.

Figure 142
Example of a parking area integrated with rain garden in the landscape.

Figure 143
Example of a landscape treatment utilizing mix of footpath and feature plants to complement the built form.

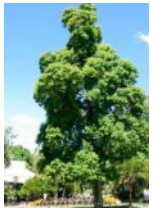


Figure 144
Example of species of trees for on-lot tree planting.

Figure 145
Example of a small shelter for EV charging bay.

Source: SBA Architects

Design Element	Design Quality Principles
Communal Outdoor Areas	• In a typical industrial setting, a communal outdoor space is usually provided as an informal breakout space for both warehouse and office workers. If the ancillary office is provided, the communal outdoor space is usually directly connected to the office component. • The design of the communal outdoor areas must adhere to the followings: – Integrated with the design of the ancillary office. – Provision of weather protection such as awnings, pergolas or louvers. – Breakdown of hardscape and landscape for different activities. For integration with soft landscaping areas, please see Sustainability- Enterprise + Industry. – Have views to landscape where practical.

Figure 146
Example of a communal outdoor area that is directly connected to the staffroom/ lunchroom shaded with pergolas and louvers.

Design Element	Design Quality Principles
Materials and Colours	• Materials used for façade should be robust, fit for purpose, easy to maintain and consistent with the functional requirements. • If the development consists of an ancillary office, the design of the ancillary offices should be expressed as a finer grained component using materials with varying colours and texture and provide engagement with the street. • Figure 147 below illustrates benchmark building forms and ancillary office design. 

Figure 147 Example of an utilization of different materials to express different functional spaces within the ancillary offices.

Source: SBA Architects

Table 33 Design Quality Elements and Principles – Local Centre

Design Element	Design Quality Principles
Building Frontage	• The building should have sufficient width to achieve: • Building frontage should consider privacy, solar access, services and outlook. • Building frontage should be flexibility in use and accommodate future changes. 
Street Frontage Heights	• As the Local Centre is established as pedestrian focused area with the use of Public Transport, the overall height of building should complement the scale of the Promenade and Local Park. • The presence of street wall should contribute to the street characteristic of the Local Centre and is pivotal in enriching the streetscape. • The maximum height of street wall should take into consideration the flexibility for future use of occupants. 

Figure 148 Rendered impression of wide building frontage with flexibility for distribution of built forms and amenity.

Figure 149 Example of an expression of a street wall designed to create an engaging urban facade and enhance pedestrian experience.

Source: SBA Architects

Design Element	Design Quality Principles
Building Articulations	• The façade articulation should enhance the building amenity and create visual interest along the streetscape. • The design of the articulation should not impede on the vistas or create a visual clutter. • Figure 148, Figure 149, and Figure 150, below illustrate how the materials, street walls and how landscaping should be accommodated into a successful design. • Building orientation and height of the future new development should be designed to optimise the solar amenity to the building self and minimise the shadow impact on neighbouring buildings and open spaces. • Wind safety and pedestrian wind comfort assessment should be considered and incorporated in the Master Plan design. 

Figure 150 Example of a facade designed to add visual interest and space for amenity.

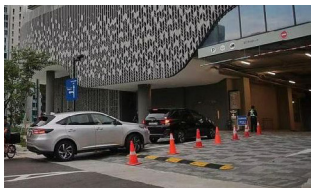
Design Element	Design Quality Principles
Materials and Colours	The material and colours proposed should: • Accentuate forms. • Be durable and serve as protection to the buildings. • Break down building dimensions and massing to create an appropriate scale and amenity to the public domain. 
Parking	• Parking should consider providing flexibility to potential building footprint to accommodate varied commercial uses and demands.  

Figure 151 Example of a glazed facade and feature sun-shading device used to accentuate forms and define public and private spaces.

Figure 152 Examples of on-grade parking and basement parking for different commercial uses.

Source: SBA Architects

14.5.6 Sustainability

Design Statement

Good design combines positive environmental, social and economic outcomes. Future development within the estate will incorporate WSUD initiatives integrated within the built form and landscape of the internal lots.

The landscape and open space response to the areas outside the specific development lots is contained within the Landscape Framework Strategy and does not form part of the Design Quality Strategy.

The Landscape Framework Strategy identifies the enhanced green and blue grid within the site through landscape responses such as tree canopy cover, riparian retention, improvement and remediation.

Objectives

1. Implement sustainable design approaches and strategies into the urban design, architectural design and landscape.
2. Facilitate and encourage active and other sustainable transport modes to minimise vehicle movement and parking.
3. To create a sustainable infrastructure that future building can tap into, helping future development to reduce carbon emission.
4. To create a development that is heat resilient.
5. To contribute to reduction of greenhouse gas production of future buildings.

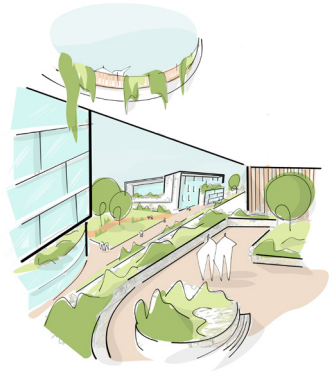


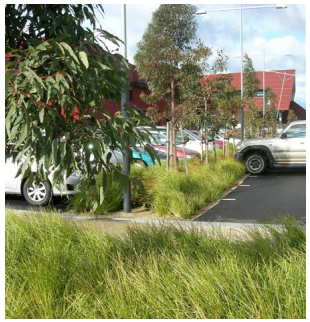
Figure 154 Sketch perspective showing both on ground landscaping and planting on terrace and balcony to bring the nature closer to the occupants.

Source: SBA Architects

Outcomes and Criteria

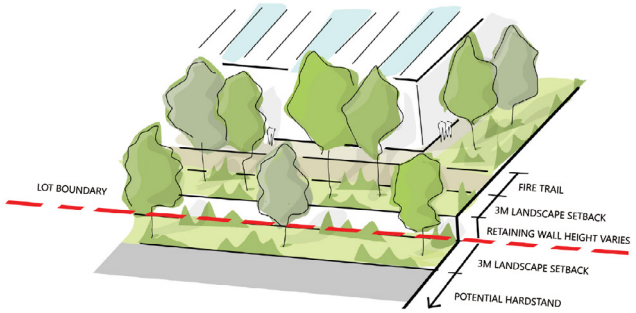
Table 34 Sustainability principles and criteria – Overall

Design Element	Design Quality Principles
On Lot Landscape	• Increase of on-lot landscape opportunities should be considered to reduce heat island effect, soften built forms by providing natural screen planting.  **Figure 153** Rendered impression of an indicative light industrial building employing green strategies such as planting on retaining walls, trees in the parking areas and green walls provide natural screen to built form and reduce heat island effect.
Soft Landscape and Deep Soil	• Soft landscape and deep soil should respond to the natural geology and physical character of the land and minimise the cut and fill. • Soft landscape and deep soil should minimise battering and level changes between Road corridors and Riparian corridors. • Soft landscape and deep soil should facilitate and encourage active and other sustainable transport modes to minimise vehicle movement and parking.

Design Element	Design Quality Principles
WSUD Initiatives	• The development should integrate Water Sensitive Urban Design principles into the design of the landscape and built form. • The WSUD elements should be integrated with the connection with Country strategy across the site. • Water should be retained in the landscape by maximising appropriate permeable surfaces. • Terraced Rain gardens/ WSUD features should be integrate within setbacks where large expanses of retaining walls are located. These features are an opportunity to integrate WSUD and Connection with Country initiatives and create interest along the road corridor. Run off is collected from the On-Lot hardstand areas and filters down though the terraced rain gardens toward the riparian corridors.  **Figure 155** Example of WSUD initiative. *Source: Site Image*
Energy and Water	• Indicative measures should be responded to, for ESD contained within the Sustainability Strategy and ESD Report prepared by Civille (dated June 2024) which accompanies the Master Plan.

Source: SBA Architects

Table 35 Sustainability elements and principles – Enterprise and Industry

Design Element	Design Quality Principles
Landscape Between Lots	• Natural shade should be established along inter-lot boundaries. • 3m landscape strip between built form and the allotment side or rear boundary to ensure sufficient building separating should be allowed for (See Figure 156). • A mix of large and medium canopy trees as well as understory shrubbery and native ground covers should be used, to ensure adequate landscape screening is established. • Tree species from the species list in the Landscape Strategy should be utilised to minimise issues of bird strike. • Screening planting to lot boundaries should be featured for planting to accessible lot entries to indicate points of interest to pedestrians.  **Figure 156** Landscape setback between lots with tree planting and ground cover for enterprise and industry area

Source: SBA Architects

Design Element	Design Quality Principles
Energy	• Natural light should be maximised to reduce electricity demand during daytime. • Sun light into workspaces should be controlled in accordance with specific task to increase thermal comfort, reduce heat loading and increase productivity, without compromising views to external environment. • Secondary light source such as courtyard spaces or light well should be utilised to avoid overtly reliance of direct sunlight.  **Figure 157** Example of sun shading device filtering sunlight to reduce heat without compromising solar access and views.
Car Parking	• Areas for external carparking should be protected from heat with more medium trees (8-12m high and up to 8m in crown spread at maturity) and shrubs. • Provide 1 medium tree (capable of a mature height of 10-15m) for every 10 at grade car spaces within island planter beds with a minimum width of 2.5m. This provision is to ensure wildlife hazard considerations can also be met.  **Figure 161** Example of landscape elements such as trees and planter beds in the parking area to reduce heat gain and provide shade.

Design Element	Design Quality Principles
Electrical Charging Capabilities	• The development should promote use of low carbon, sustainable transport options instead to reduce carbon emission. • To integrate EV charging for car parking spaces where appropriate. 
Heat Resilient	• The development should comprise of building or landscaping elements that help reduce the impact of heat island effect. • Use of material with increased albedo (reflectivity) should have small potential to store heat and release less heat into the surrounding air. • Roofing materials to reduce solar radiation absorption should be used. 

Figure 158 Example of a potential carbon reduction solution using electrical vehicle charging points to minimise the use of fossil-fueled vehicles and in turn lowers carbon emissions and improved air quality.

Figure 159 Rendered impression of an indicative building with heat resilient design solutions using light-coloured materials for facade and hardscaping as well as canopy structure that extends beyond building footprint to shield glazing from heat load, reflect light and release heat at night.

Source: SBA Architects

Design Element	Design Quality Principles
Integration of Soft Landscaping	• The development should allow space for planting within the designated communal areas on ground plane to increase more soft landscaping areas and to help cool building. 

Figure 160 Rendered impression of a potential landscape strategy that integrates trees and ground cover with built form to provide shade to paved areas around building, which then absorb less heat.

Table 36 Sustainability elements and principles – Local Centre

Design Element	Design Quality Principles
Energy	• Natural light should be maximised to reduce electricity demand during daytime. • Sun light into workspaces should be controlled in accordance with specific task to increase thermal comfort, reduce heat loading and increase productivity, without compromising views to external environment.
Deep Soil	• The development should encourage deep soil zones to ensure maximum filtration of stormwater into the water table. • Deep soil zones are integral to the Commercial Centre as they provide the best opportunity for healthy tree growth and re-established fragmented bushland.
Heat Resilient	• The development should comprise of building or landscaping elements that reduce the impact of heat island effect (see Figure 164). • Use of material with increased albedo (reflectivity) should have small potential to store heat and release less heat into the surrounding air. • Buildings with excessive dark colours should be avoided.

Figure 162 Example of passive solar building design utilising sun-shading device to manage daylight into office space and reduce reliance on electrical lighting during daytime.

Source: SBA Architects

Figure 163 Example of deep soil zones within the high density areas to maintain healthy tree growth and manage stormwater run-off.

Figure 164 Example of design solutions employing trees and vertical blades to filter excessive sunlight and cool building.

14.5.7 Public Domain

Design Statement

Design recognises that together, both landscape and buildings operate as an integrated and sustainable system, resulting in attractive developments with good amenity.

Objectives

Enterprise and Industry

1. Create an accessible public domain within the enterprise and industry locations on site.
2. Provide activation and amenities for future workers.
3. To create soft interfaces and edges with warehouse and distribution facilities

Commercial Centre

4. Create safe and well-connected pedestrian network to prioritise pedestrian and cycle movement.
5. Promote inclusive design solutions for the public domain.
6. Appropriate size and locations of the public domain with a range of diverse uses to meet daily needs and amenity.
7. Prioritise shared uses of the public domain.

Design Quality Principles

Site image has prepared designs for the public domain and riparian areas and these are provided as part of the Framework Landscape Master Plan. This contains details plans that are provided for the public domain and riparian corridors which IPG intends to develop.

The aims and objectives of the Western Sydney Aerotropolis Development Control Plan 2022 seek to facilitate appropriate development for the unique Western Sydney Landscape and looks to support accessibility, sustainability and high-quality amenity for the future growth of this precinct.

The benchmark solutions for landscape outcomes in the DCP, seek to hold the developer to a high standard of design quality. The approach for the Badgerys Creek Road Master Plan has been to not only meet these objectives, but further reinforce the vision of the DCP and Precinct Plan, through site specific design principles.

This Design Quality Report demonstrates the Design Quality principles and outcomes for future on-lot development. As the public domain interfaces with future on-lot development it is important that the design principles for the riparian corridors and streetscape support and create a cohesive design response to the Design Quality Report.

Riparian Corridor Principles

- Promote pedestrian use of the Riparian Corridors through safe and equitable access from road corridors.
- Promote the offering of extensive active transport corridors and pathway networks through the riparian zones through visual access & wayfinding.
- Where amenity nodes have been established close to waterways and wetlands, interactive elements such as interpretive panels, informal access to waterway (stepping stones or similar) or a lookout deck should be incorporated.
- Ecology and strengthening of the blue-green grid should take priority in the corridors and majority of the riparian offset zones will be planted to a vegetation management plan.
- Natural features, eco tones, forms of the land and vistas should be celebrated and enhanced to strengthen the awareness of the cultural significance of waterways.
- Acknowledging the reciprocal relationship that Indigenous people have with native fauna and that any development in the area will have large effects on this relationship.
- The Landscape and Public Domain Design developed and co-designed through the Designing with Country process and the Key themes should help to drive the spatial and conceptual design.
- Minimise battering and level changes between Road corridors and Riparian corridors and retain the natural levels within the riparian offset zones.

Figure 167 Riparian Corridor 1

Figure 168 Riparian Corridor 2

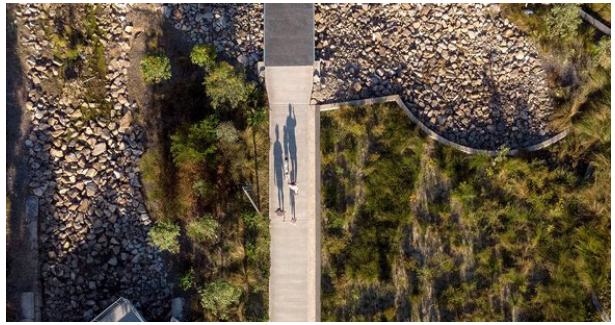


Figure 169 Riparian Corridor 3

Source: Site Image

Streetscape Design Principles

- Implementation of WSUD initiatives, such as passive irrigation, to support the growth of healthy trees.
- Extensive street tree planting along all road corridors to mitigate urban heat island effect and to provide canopy coverage as shade amenity for pedestrians.
- Varied street tree species to enhance street character, whilst also minimising bird strike risks through species selection.
- Street trees to utilise deep soil in order to reach mature canopy size.

Table 37 below identifies design elements and outcomes for the Local Centre.

Table 37 Public Domain elements and principles – Local Centre

Design Element	Design Quality Principles
Local Park	• The Local Park is to be designed with high-quality amenity and will include a variety of functional spaces for workers, visitors, and the broader community. • Ensure that all people working within the Aerotropolis understand the significance of Country to Indigenous people and the connection Indigenous people have to the landscape.  **Figure 165** Local park precedent

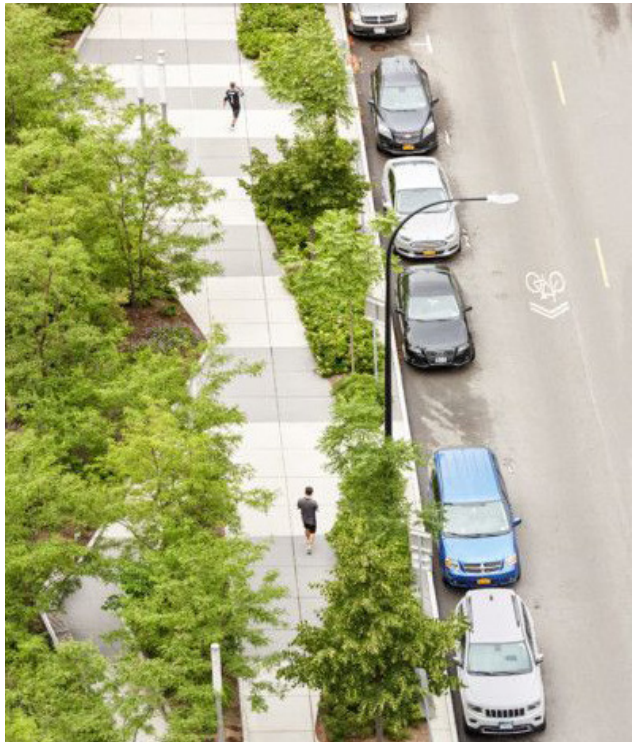
Design Element	Design Quality Principles
Retention of Existing Trees	• Large Group of Eucalyptus species is to be retained where possible and appropriate for the Local Park setting.
Laneways and Plazas	• Laneways to be Pedestrianised and prioritise placemaking for pedestrians. • Laneways to provide both active and passive amenity. • Laneways and plazas to integrate seating and raised planters to define program of spaces and delineate between activated areas and circulation zones. 

Figure 166 Plaza precedent

Source: Site Image

14.5.8 Design Verification Checklist

Complying Development within the IPG Badgerys Creek Road Master Plan

The Complying Development Code is written to facilitate a broad range of development to be progressed as complying development, subject to it being brought forward in accordance with complying development standards and other framework criteria.

It is acknowledged that this process is intended to capture a wide range of development, including new industrial, warehouse and distribution premises, along with and development within the Local Centre.

The Design Quality Strategy (DQS) contained in the Master Plan Report seeks to ensure that development within the IPG site is designed in light of the considerations set out within the DQS and achieves design quality.

Where complying development is proposed, and the development is not capable of meeting the requirements of the Design Verification Checklist then the proposal will not be eligible to progress as complying development.

The documentation requirements for complying development are detailed in Table 23 of the Master Plan.

The pre-lodgement requirements for complying development are detailed in Section 12.3.

DISCLAIMER

This report is dated 31 March 2025 and incorporates information and events up to that date only and excludes any information arising, or event occurring, after that date which may affect the validity of Urbis Ltd (Urbis) opinion in this report. Urbis prepared this report on the instructions, and for the benefit only, of Ingham Property Group (Instructing Party) for the purpose of Planning Report (Purpose) and not for any other purpose or use. To the extent permitted by applicable law, Urbis expressly disclaims all liability, whether direct or indirect, to the Instructing Party which relies or purports to rely on this report for any purpose other than the Purpose, and to any other person which relies or purports to rely on this report for any purpose whatsoever (including the Purpose).

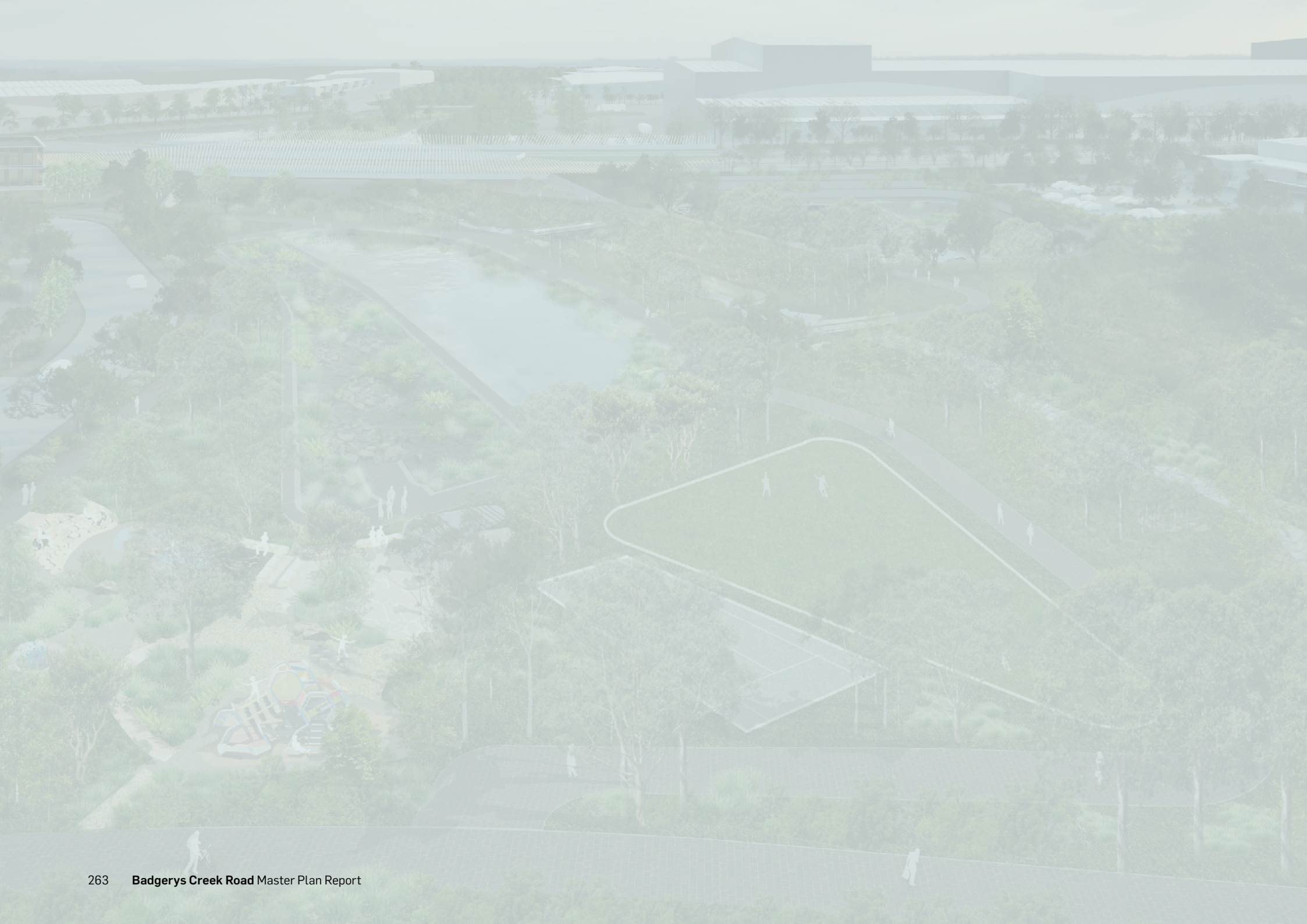
In preparing this report, Urbis was required to make judgements which may be affected by unforeseen future events, the likelihood and effects of which are not capable of precise assessment.

All surveys, forecasts, projections and recommendations contained in or associated with this report are made in good faith and on the basis of information supplied to Urbis at the date of this report, and upon which Urbis relied. Achievement of the projections and budgets set out in this report will depend, among other things, on the actions of others over which Urbis has no control.

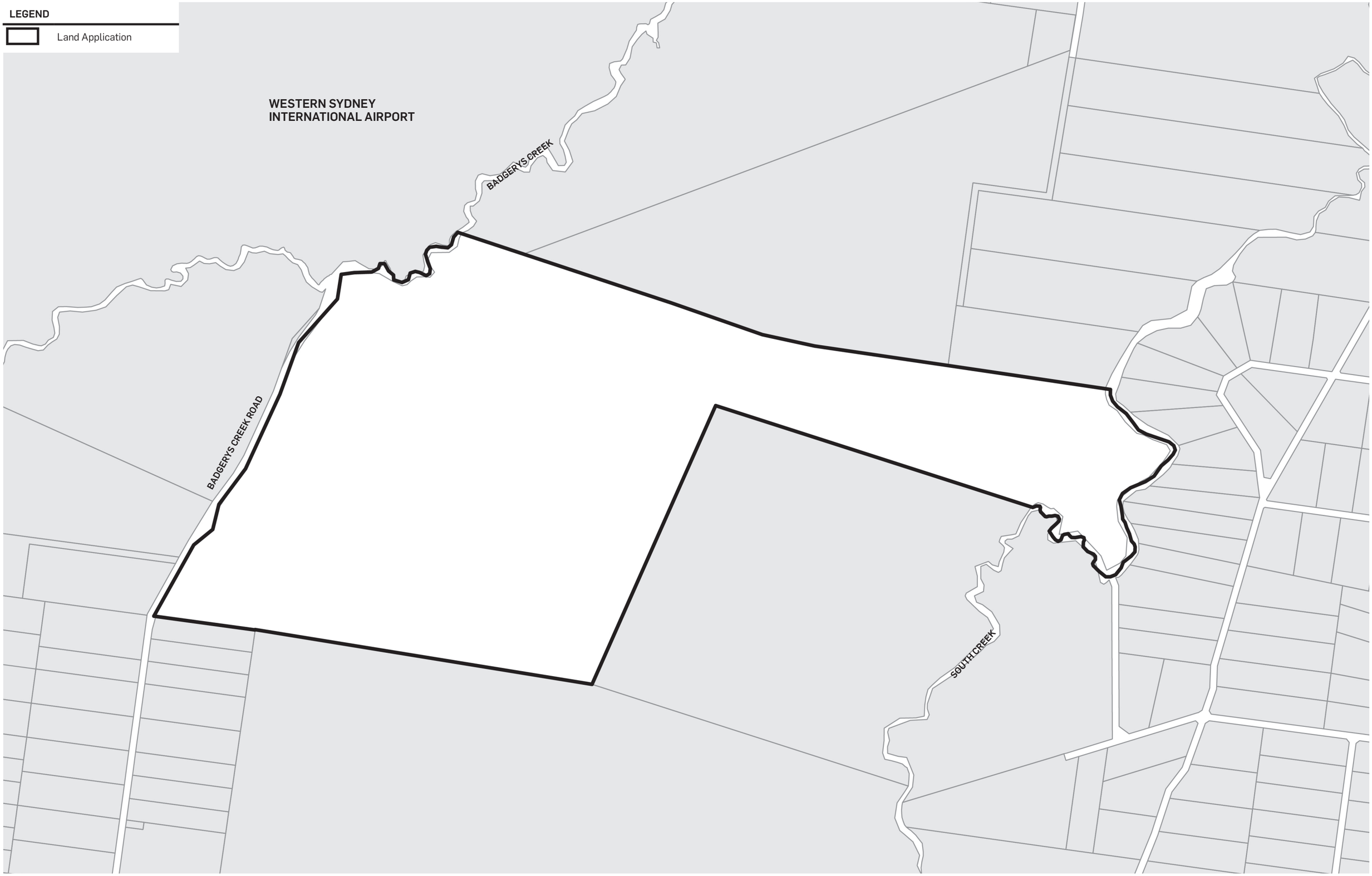
In preparing this report, Urbis may rely on or refer to documents in a language other than English, which Urbis may arrange to be translated. Urbis is not responsible for the accuracy or completeness of such translations and disclaims any liability for any statement or opinion made in this report being inaccurate or incomplete arising from such translations.

Whilst Urbis has made all reasonable inquiries it believes necessary in preparing this report, it is not responsible for determining the completeness or accuracy of information provided to it. Urbis (including its officers and personnel) is not liable for any errors or omissions, including in information provided by the Instructing Party or another person or upon which Urbis relies, provided that such errors or omissions are not made by Urbis recklessly or in bad faith.

This report has been prepared with due care and diligence by Urbis and the statements and opinions given by Urbis in this report are given in good faith and in the reasonable belief that they are correct and not misleading, subject to the limitations above.



APPENDIX A - COMPLYING DEVELOPMENT CODE MAPS



URBIS

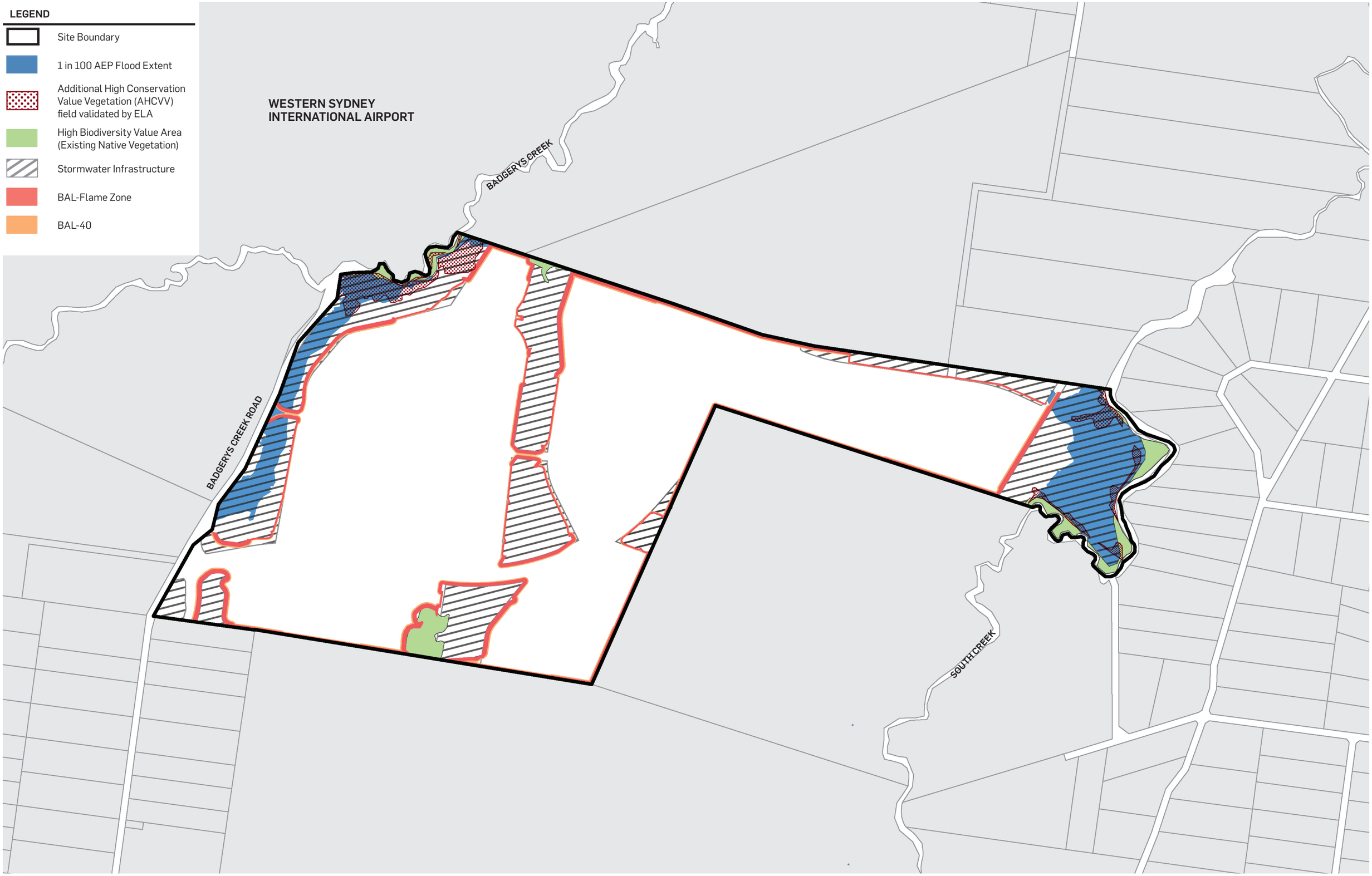
INGHAM BADGERYS CREEK MASTER PLAN

1- COMPLYING DEVELOPMENT FRAMEWORK - LAND APPLICATION MAP

1:10,000 @ A3

0 100 200 300 400 500

DATE: 28 APR 2025
JOB NO: P0038511
REV: B



URBIS

INGHAM BADGERYS CREEK MASTER PLAN

2- COMPLYING DEVELOPMENT FRAMEWORK - LAND CONSTRAINTS MAP

1:10,000 @ A3

0 100 200 300 400 500

DATE: 28 APR 2025

JOB NO: P0038511

REV: B

LEGEND

- Site Boundary
- Maximum Building Height: 24m
- Maximum Building Height: 52.5m
- Maximum Building Height: 52.5m (Potential for Landmark Building)
- Maximum Building Height: 52.5m (Potential High Bay Warehousing)
- High-Bay warehouse development within the Wind Shear Area will require consultation with the relevant Commonwealth Department

WESTERN SYDNEY INTERNATIONAL AIRPORT

BADGERYS CREEK

BADGERYS CREEK ROAD

SOUTH CREEK

URBIS

INGHAM BADGERYS CREEK MASTER PLAN

3- COMPLYING DEVELOPMENT FRAMEWORK - HEIGHT OF BUILDING MAP

1:10,000 @ A3

0 100 200 300 400 500

DATE: 20 JUN 2024
JOB NO: P0038511
REV: B

URBIS

INGHAM BADGERYS CREEK MASTER PLAN

4- COMPLYING DEVELOPMENT FRAMEWORK - ROAD NETWORK MAP

1:10,000 @ A3

0 100 200 300 400 500

DATE: 28 APR 2025

JOB NO: P0038511

REV: B

URBIS

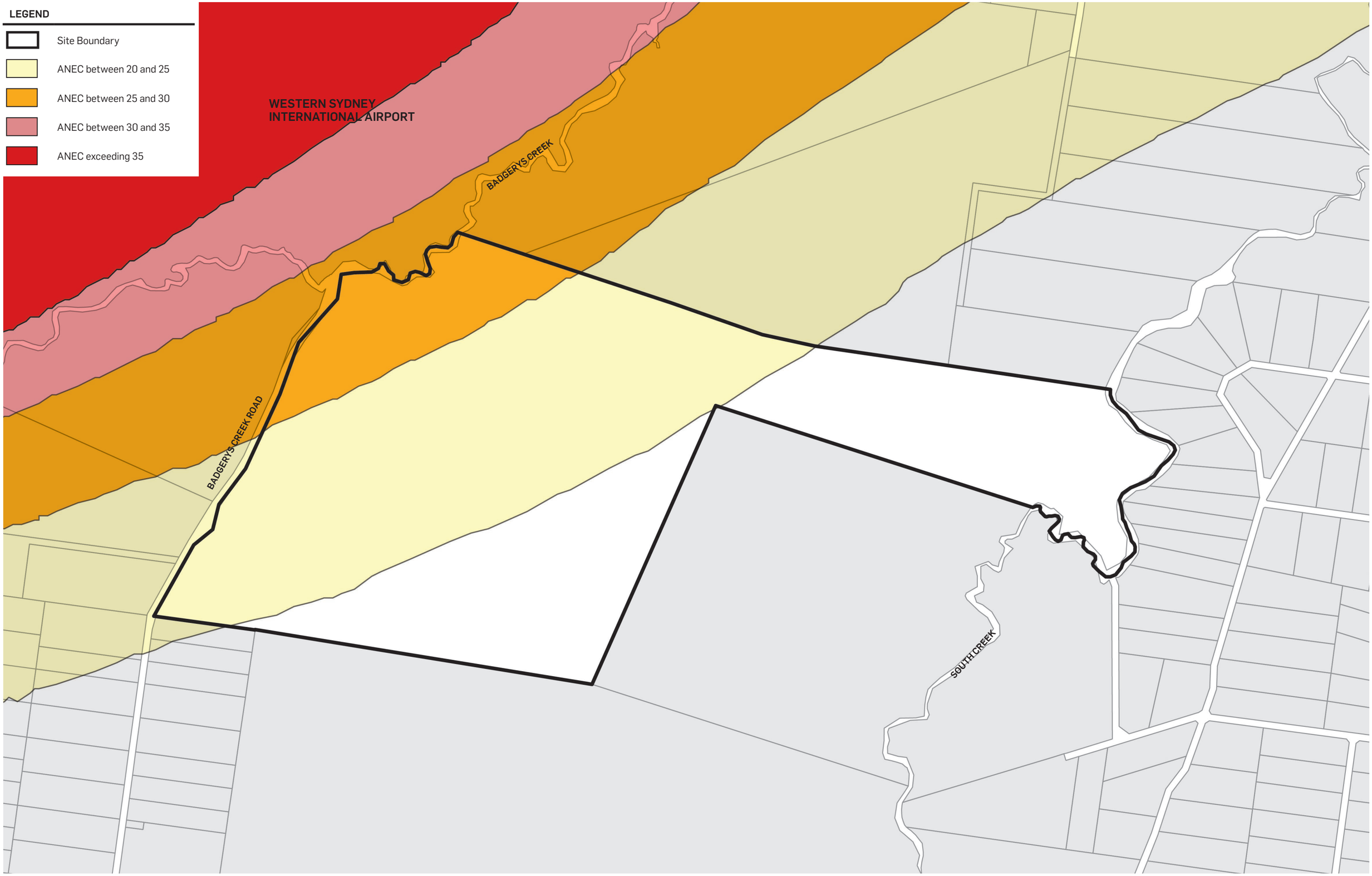
INGHAM BADGERYS CREEK MASTER PLAN

5- ROAD NETWORK COMPLYING DEVELOPMENT MAP

DATE: 28 APR 2025
JOB NO: P0038511
REV: B

1:10,000 @ A3

0 100 200 300 400 500



URBIS

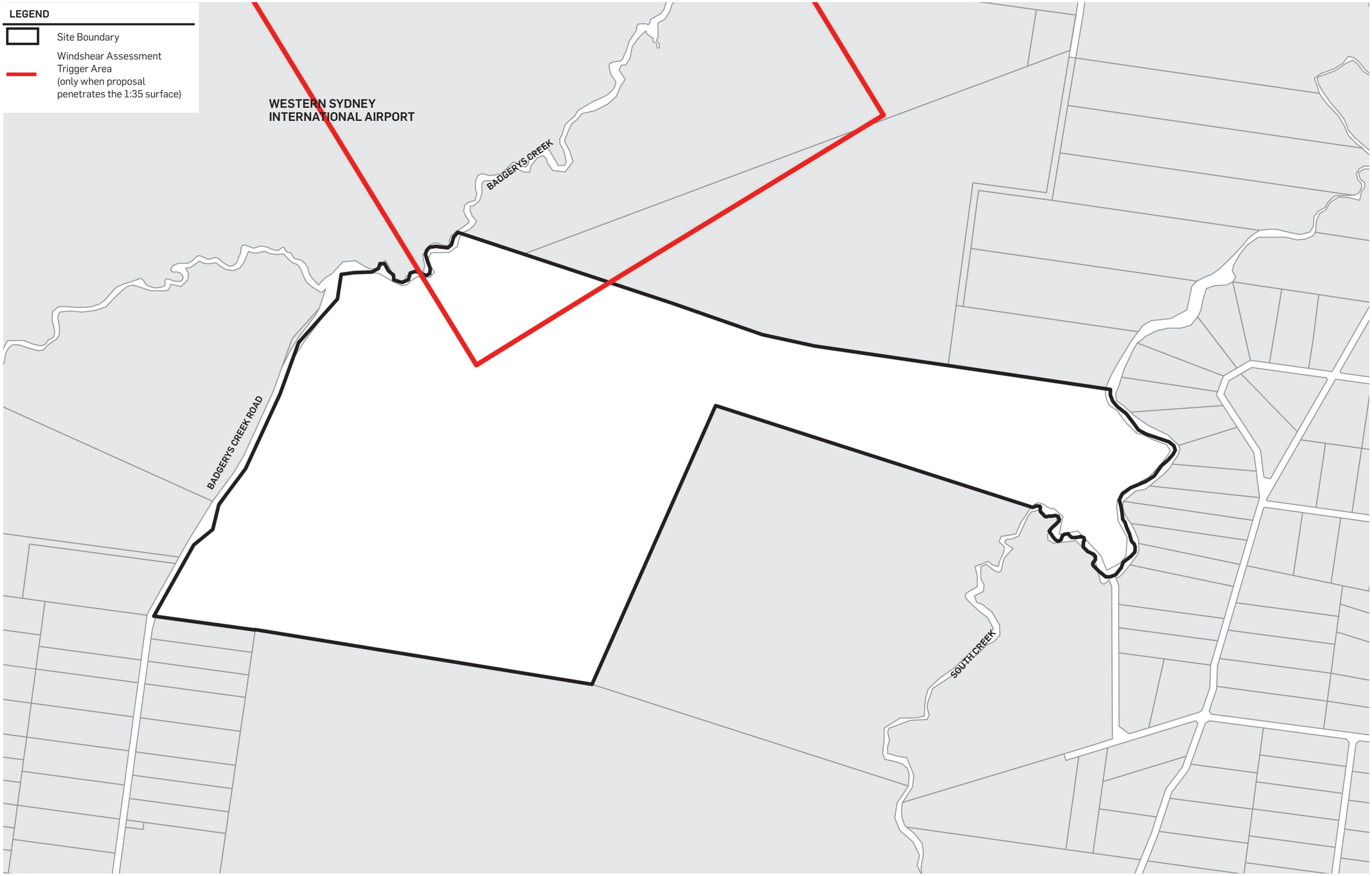
INGHAM BADGERYS CREEK MASTER PLAN

6- COMPLYING DEVELOPMENT FRAMEWORK - NOISE EXPOSURE CONTOUR MAP

1:10,000 @ A3

0 100 200 300 400 500

DATE: 28 APR 2025
JOB NO: P0038511
REV: B



URBIS

INGHAM BADGERYS CREEK MASTER PLAN

7- COMPLYING DEVELOPMENT FRAMEWORK - WIND SHEAR RESTRICTIONS MAP

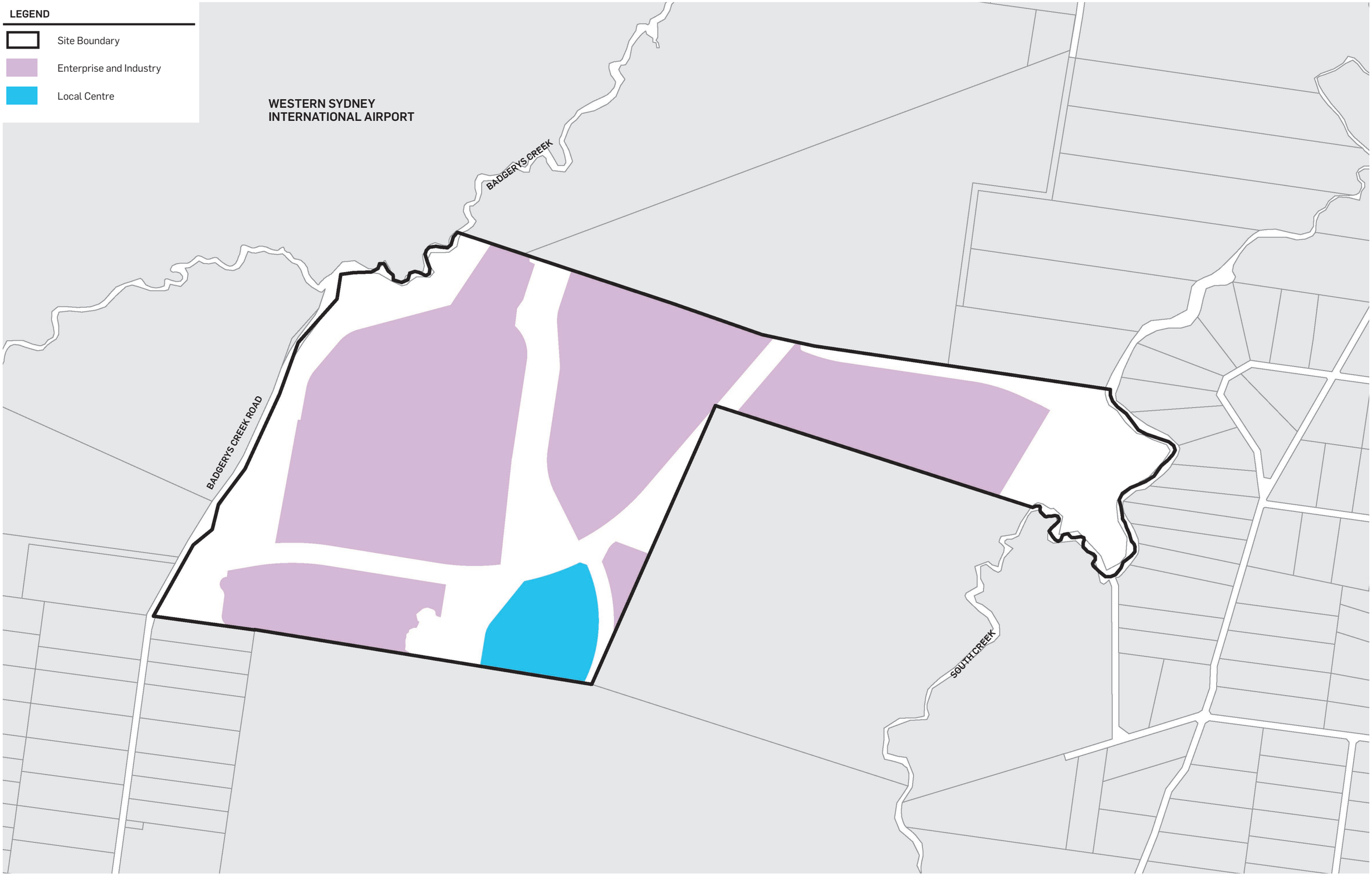
1:10,000 @ A3

0 100 200 300 400 500

DATE: 28 APR 2025

JOB NO: P0038511

REV: B



URBIS

INGHAM BADGERYS CREEK MASTER PLAN

8- COMPLYING DEVELOPMENT FRAMEWORK - LAND USE PLAN

1:10,000 @ A3

0 100 200 300 400 500

DATE: 28 APR 2025
JOB NO: P0038511
REV: B

APPENDIX B - SUPPLEMENTARY INFORMATION FOR COMPLYING DEVELOPMENT

IPG COMPLYING DEVELOPMENT CODE

APPENDIX B – SUPPLEMENTARY INFORMATION

This Appendix contained the relevant sections of the following technical reports that are referenced within the Code:

1. Section 2.3 of the IPG Complying Development Code – Bushfire (Pages 1-12 of this Appendix)

1. SECTION 2.3 – BUSHFIRE

Where there is reference to detailed bushfire mapping in the IPG Complying Development Code, this relates to the following Section 18 and Bushfire Mapping reproduced below from the Blackash Bushfire Assessment Report (updated February 2025).

The mapping in Figures 22-25 provide detailed assessment of the interaction between the APZ to meet a minimum BAL-29 standard and the outline of the indicative building envelopes as presented in the Master Plan documentation.

The yellow band depicts the width of the required standard APZ drawn from *Planning for Bushfire Protection* (PBP) Table A1.12.2.

The mapping on Figures 27-31 uses both the indicative building envelopes from the design exercise, and the very conservative standardised BAL modelling from PBP. These Figures show all proposed lots can accommodate complying development under these very conservative assumptions, with the exception of a small part of the eastern section of proposed Lot 4 as seen on Figure 32.

Figures 22 – 32 from the Bushfire Assessment Report are replicated in Pages 2 – 12 below.

Bushfire Figure 22 – Bushfire Attack Level Calculations Northwest

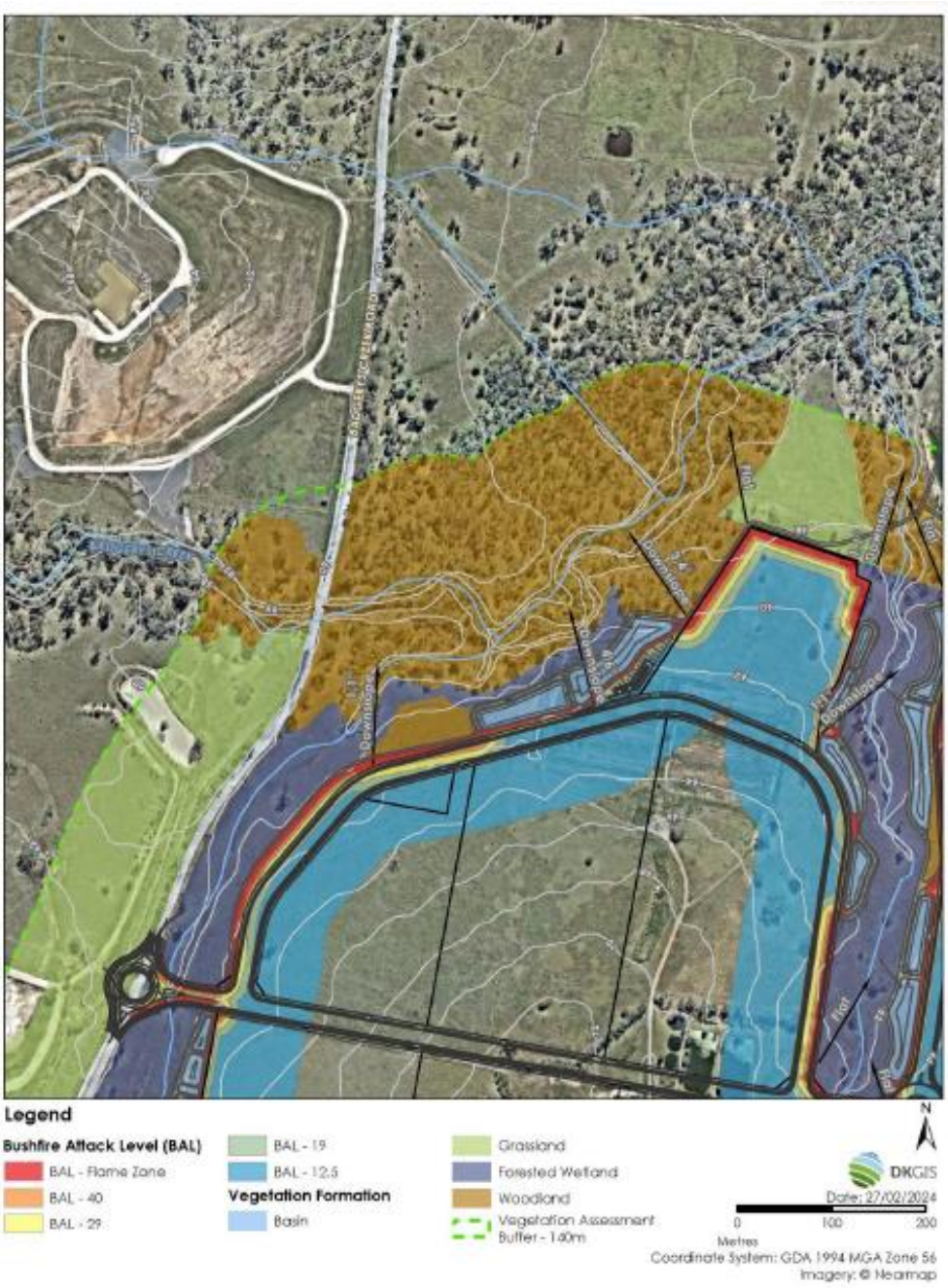


Figure 22: Bushfire Attack Level calculations - northwest

Bushfire Figure 23 - Bushfire Attack Level Calculations North

Figure 23: Bushfire Attack Level calculations – north

Bushfire Figure 24 - Bushfire Attack Level Calculations Northeast

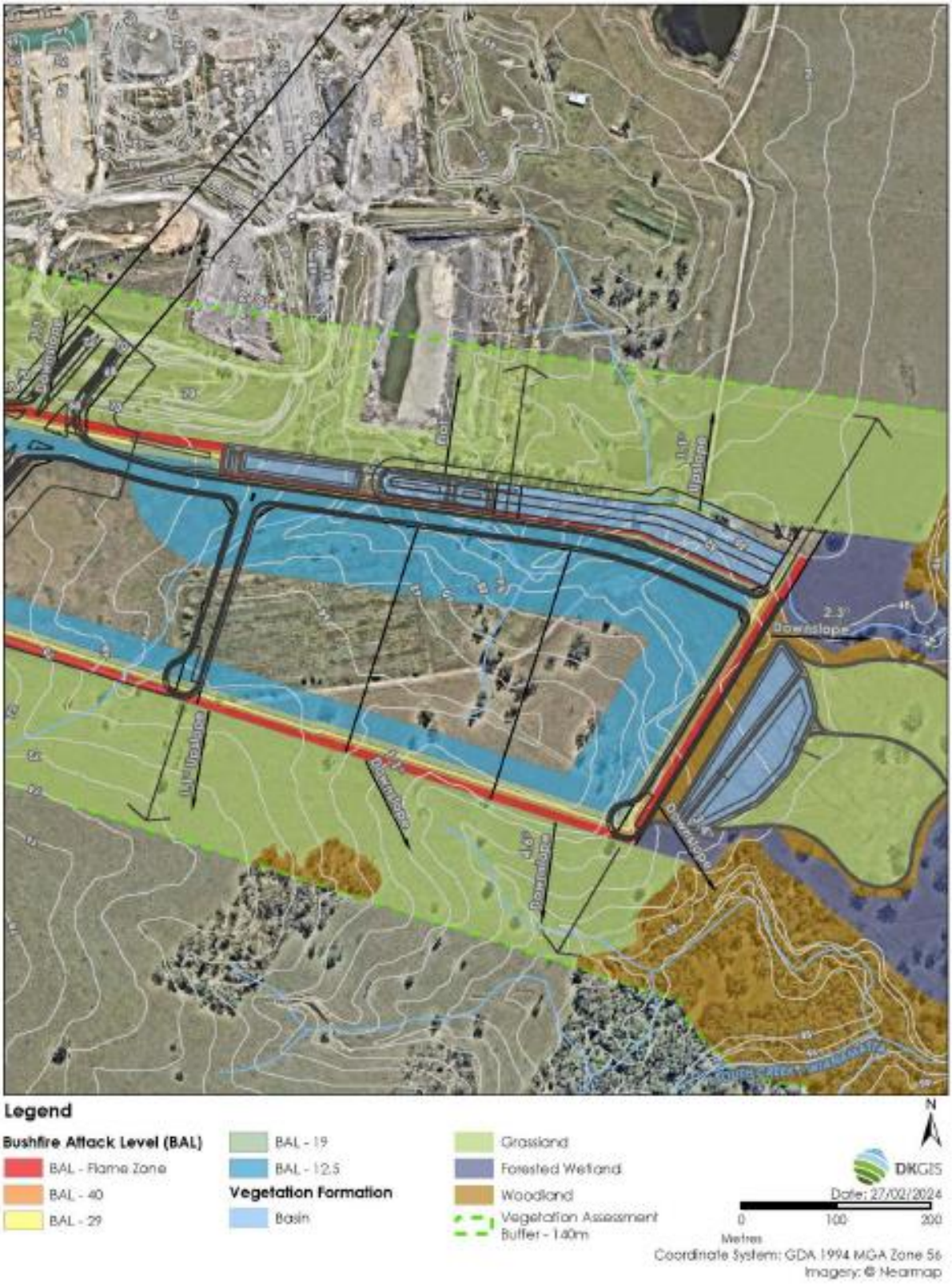


Figure 24: Bushfire Attack Level calculations – northeast

Bushfire Figure 25 - Bushfire Attack Level Calculations Southwest

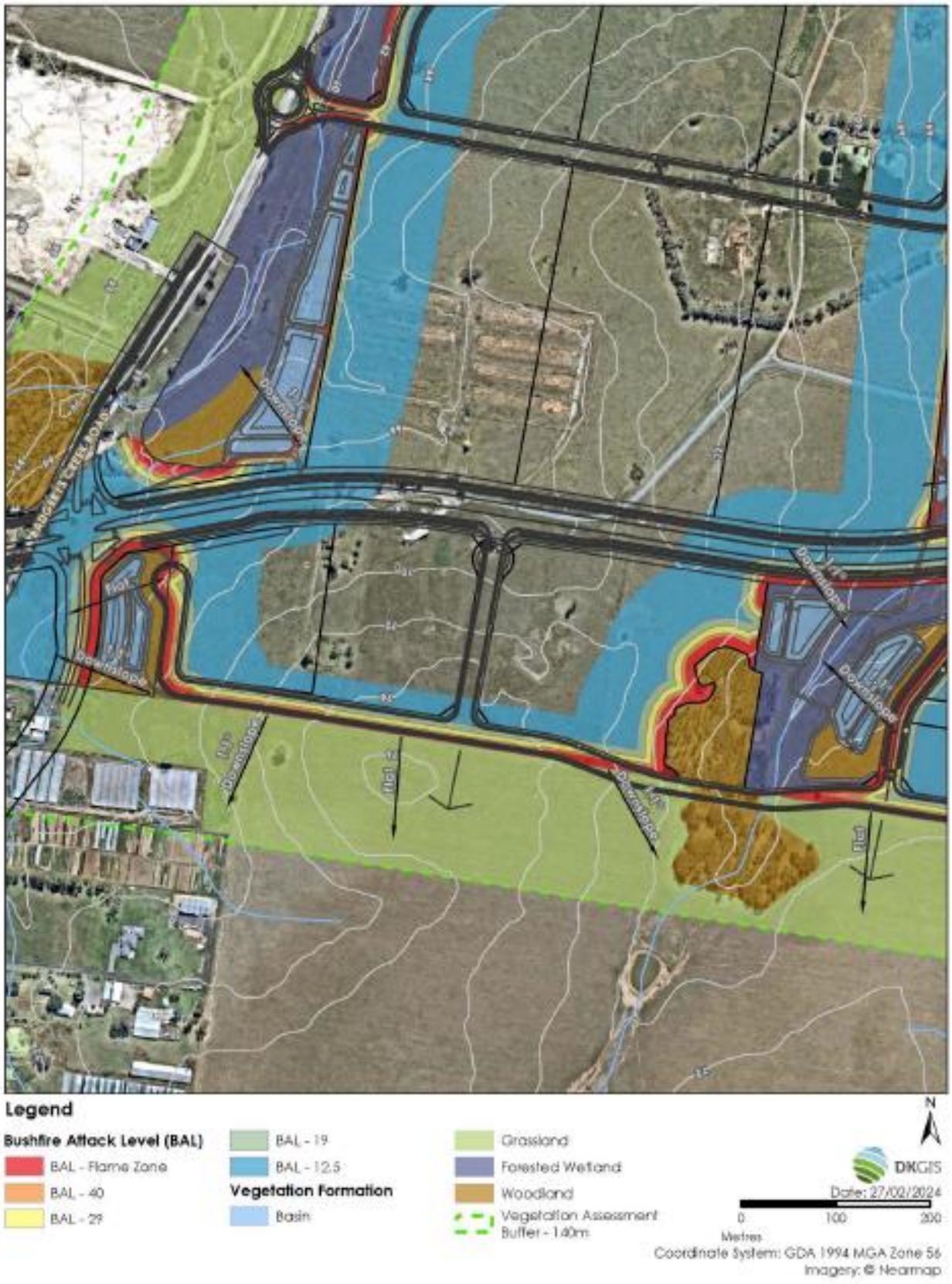


Figure 25: Bushfire Attack Level calculations – southwest

Bushfire Figure 26 - **Bushfire Attack Level Calculations Southeast**

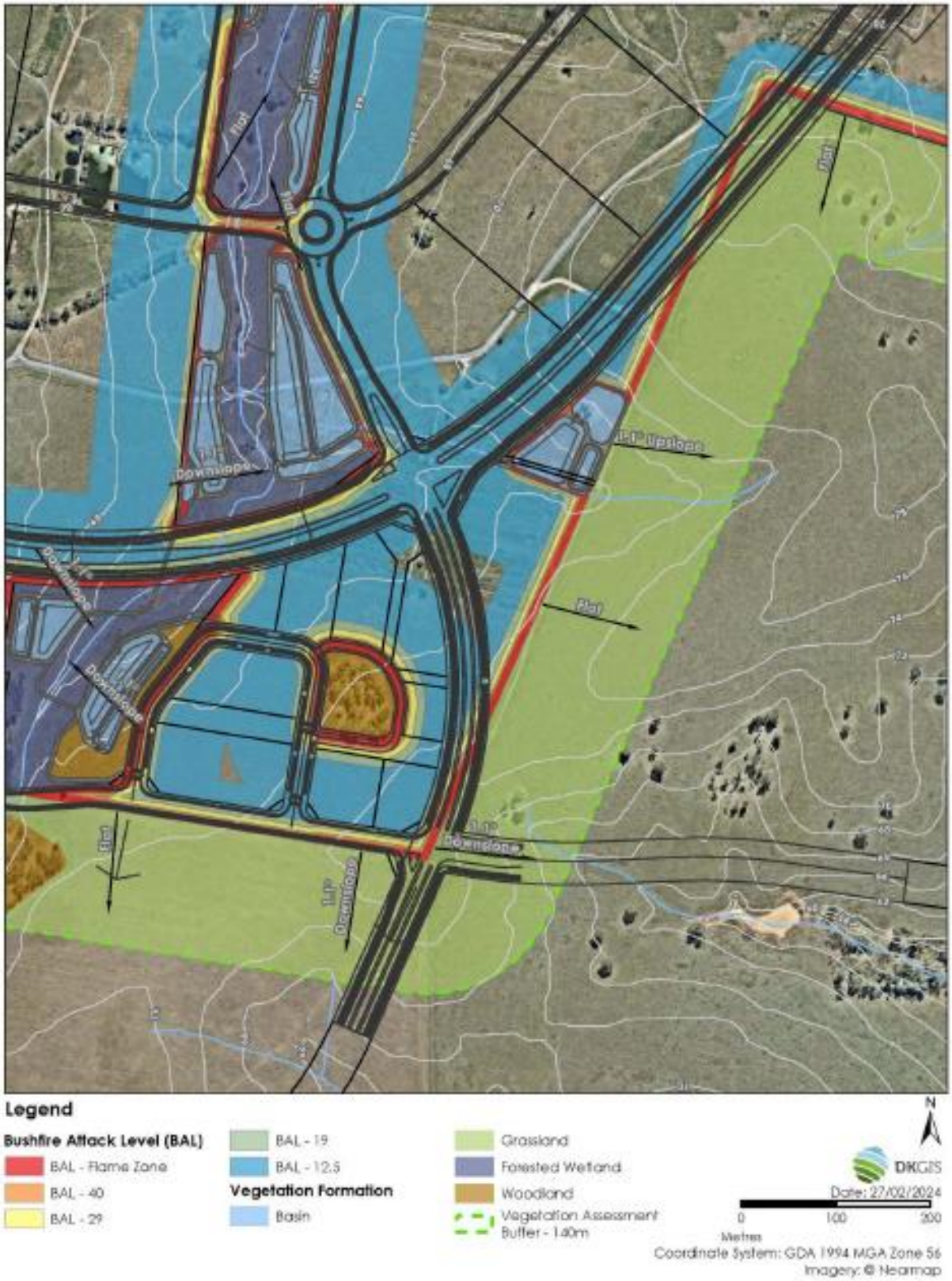


Figure 26: Bushfire Attack Level calculations – southeast

Bushfire Figure 27 – Complying Development Eligibility – Indicative Lots Northwest

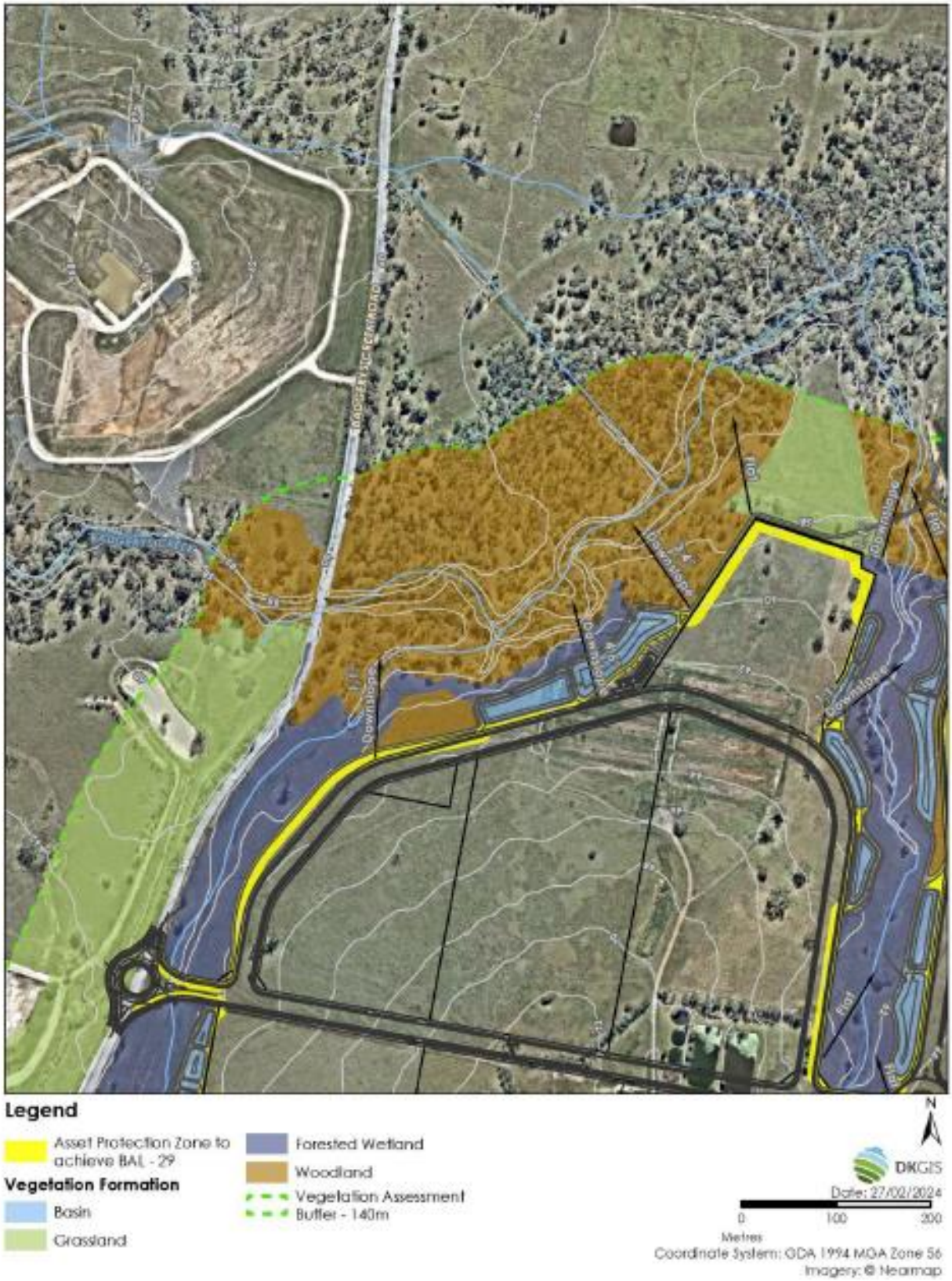


Figure 27: Complying development eligibility (indicative lots) – northwest

Bushfire Figure 28 - Complying Development Eligibility – Indicative Lots North

Figure 28: Complying development eligibility (indicative lots) – north

Bushfire Figure 29 - Complying Development Eligibility – Indicative Lots Northeast

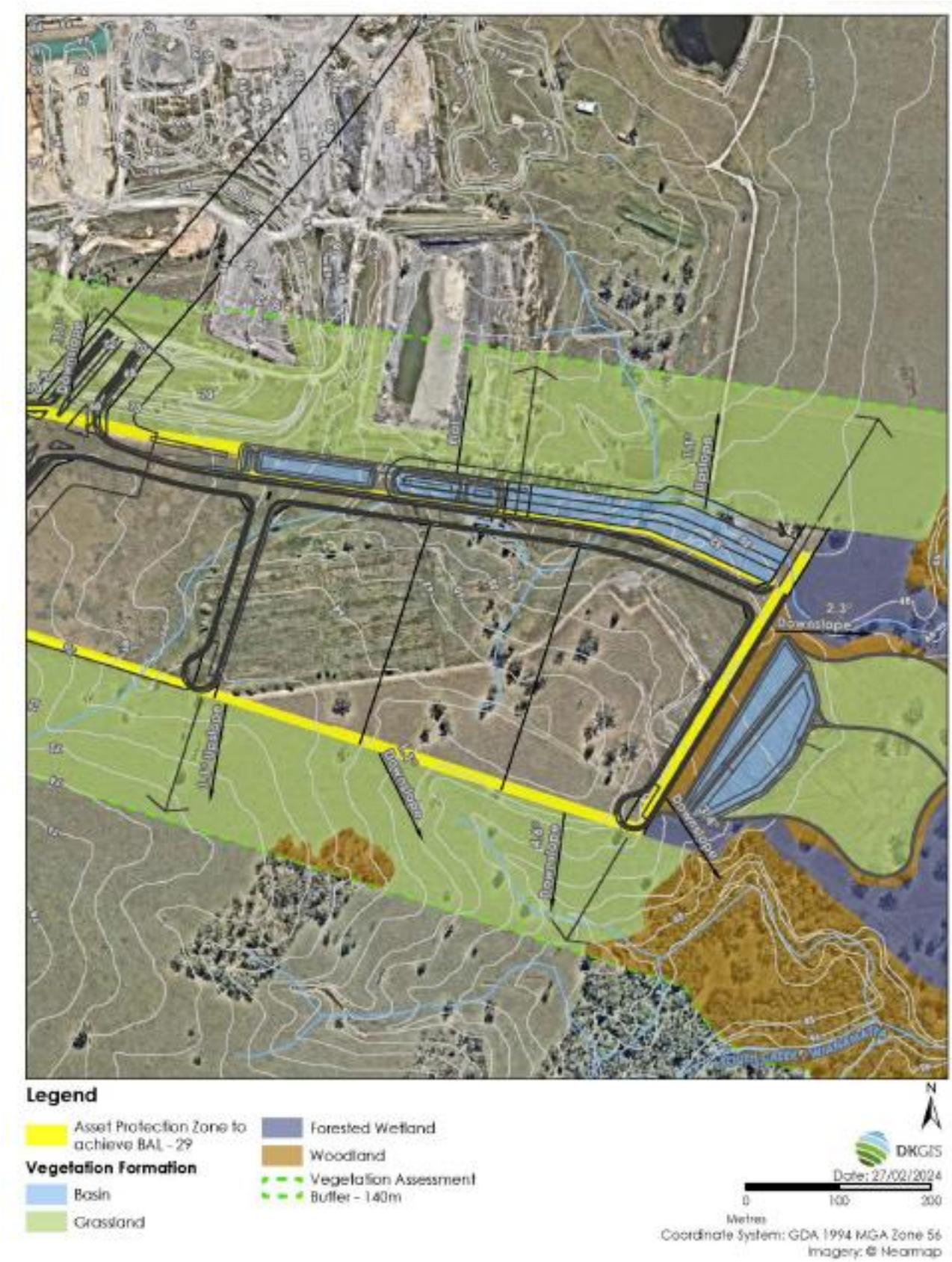


Figure 29: Complying development eligibility (indicative lots) – northeast

Bushfire Figure 30 - Complying Development Eligibility – Indicative Lots Southwest

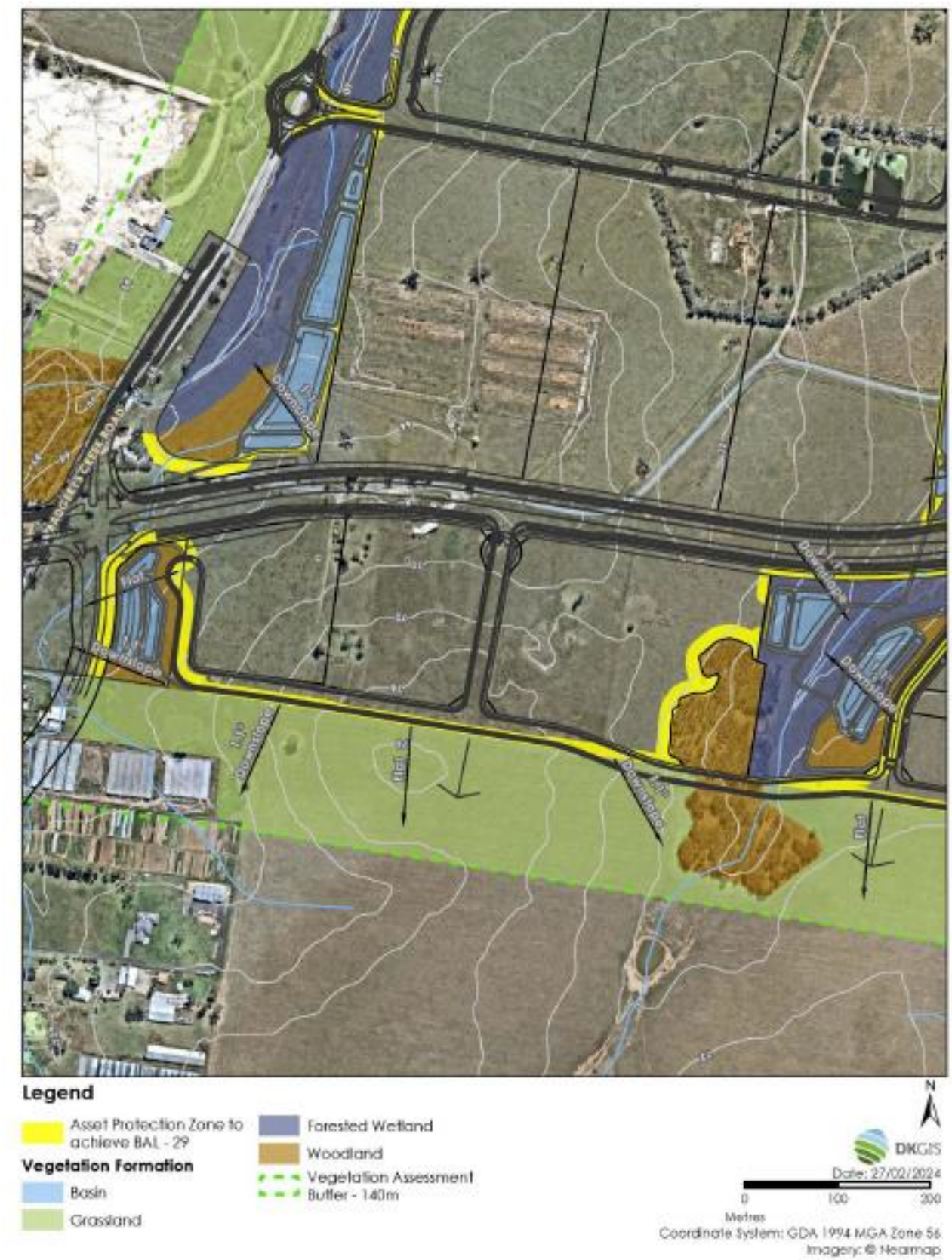


Figure 30: Complying development eligibility (indicative lots) – southwest

Bushfire Figure 31 - Complying Development Eligibility – Indicative Lots Southeast

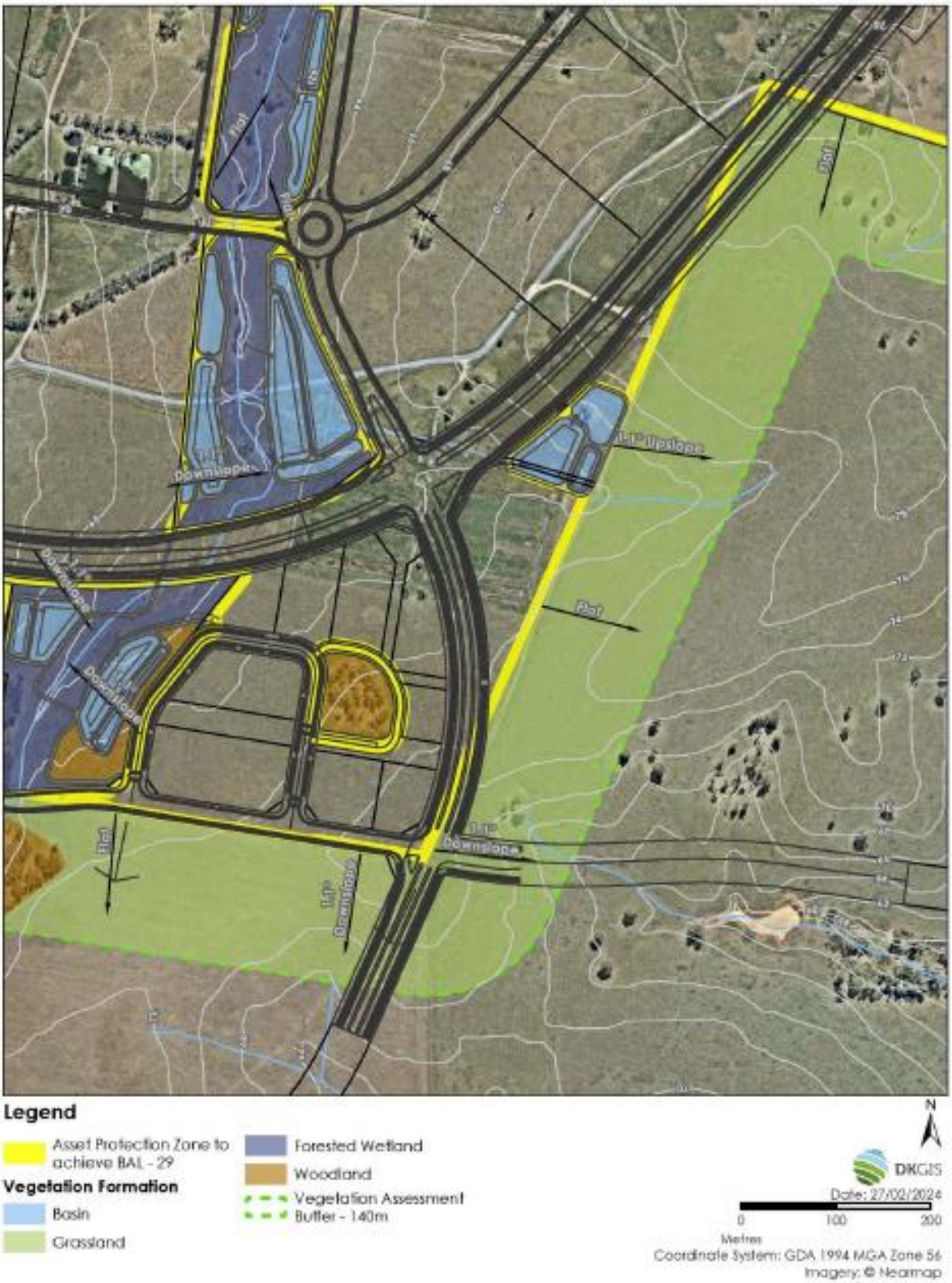


Figure 31: Complying development eligibility (indicative lots) – southeast

Bushfire Figure 32 – Highlighted Extract of Figure 30 with Commentary

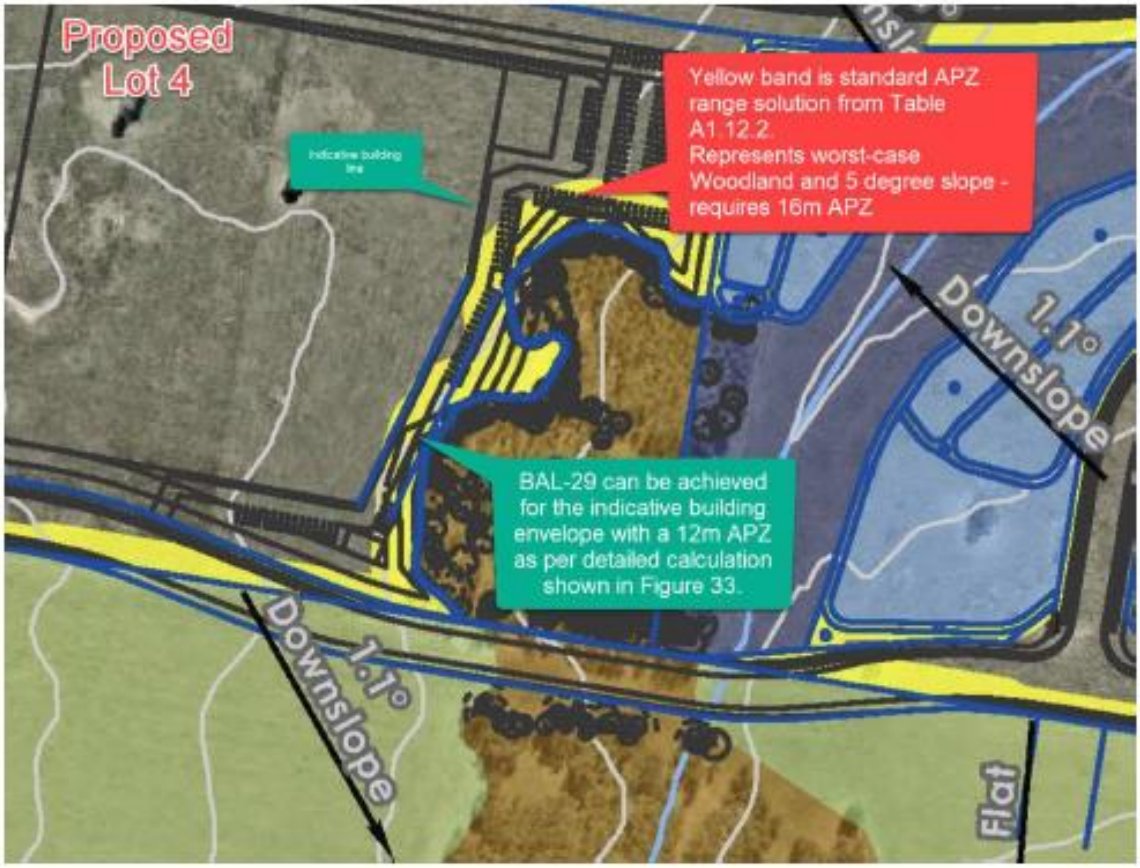


Figure 32: Highlighted extract of Figure 30 with commentary

APPENDIX C- DESIGN VERIFICATION CHECKLIST

Table 38 Design Verification Checklist

Design Element	Verification Criteria	Comply
General Provisions		
Design Quality Review Process	• The appropriate design quality review process for the development type and planning pathway has been adopted.	Yes | No | N/A
Consistency with Structure Plan	• The development is consistent with the IPG Structure Plan in Figure 1 of the Master Plan.	Yes | No | N/A
Local Centre Provisions		
Building Orientation – Local Centre	• Commercial/ retail buildings main frontage to be oriented as per Figure 79. • Blank walls must not be accommodated where building interfaces the Riparian Corridor or the Local Park. • Blank walls must not be accommodated where building façades address street frontages.	Yes | No | N/A
Building Alignment – Local Centre	<u>General</u> • Maximum floorplate size for new commercial tower (above podium) in Local Centre must be 1,500sqm. <u>The Promenade</u> • Buildings fronting the street must be set back a minimum of 5m at level 4 and above. • Buildings heights along the north interface of the Promenade must allow for solar access to the Promenade for a minimum of 3 hours of solar access between the hours of 9am and 3pm on 21 June to 70% of the Promenade. <u>Laneways</u> • Buildings must be built to boundary, <u>Easement Road</u> • The minimum building setback is 3m from the boundary.	Yes | No | N/A
Building Alignment – Local Centre (cont.)	<u>Road 01/Road 05/ Bradfield Metro Link Road</u> • The minimum building setback is 6m from the boundary. • Minimum 3m landscape setback	Yes | No | N/A
Building Composition- Local Centre	• Except for awnings, no building articulation is to project past the property boundary.	Yes | No | N/A
Primary Site Access and Activation – Local Centre	<u>Promenade</u> • If buildings are adjacent to both roads and the promenade, then pedestrian access must be located at the Promenade. • Active uses to occupy the ground level to activate streetscape. <u>Services</u> • Service entries and loading to be accessed via Road 1, Road 5 and the Easement Road. Vehicular access to basement or loading access are not permitted along Bradfield Metro Link Road. • Major services and utility equipment are to be located along the Easement Road, Road 1 and Road 5 or basement.	Yes | No | N/A
Awnings – Local Centre	• Projection of any proposed awning must be in accordance with Figure 126 in Section 14.4.4 of this Master Plan.	Yes | No | N/A
Materials – Local Centre	• Prioritise the use of low embodied carbon materials. • Material selection is to minimise reflectivity and glare impacts.	Yes | No | N/A

Design Element	Verification Criteria	Comply
Sustainability – Local Centre	• Roofing materials, including shade structures must utilize material with the following Sun Reflectivity Index (SRI): – For roof pitched<15deg: SRI 82 – For roof pitched>15deg: SRI 39 • Unshaded pavers and permeable pavers must have SRI >39. • Building design is to facilitate natural daylight for indoor uses	Yes | No | N/A
Deep Soil – Local Centre	• If the area of natural ground dedicated for deep soil is less than 25% of the total site area, the development must: – Include larger tree species within carparks and setbacks to ensure canopy coverage targets are increased. 30% of the tree species must have a mature canopy of 10-12m and be located strategically to shade carpark and hardstand areas in order to mitigate urban head buildup. – Provide alternative form of planting on upper floor external areas such as terrace and rooftop garden/ green roof. – On-lot development for within the local centre is to achieve a deep soil target of at least 10%.	Yes | No | N/A
Planting in car parking areas – Local Centre	• Tree planting in the form of island planter beds shall be provided at a rate of one planter bed per 5 car spaces wihtin the Local Centre with planting at a minimum dimension of 2.5m wide.	Yes | No | N/A

Design Element	Verification Criteria	Comply
Enterprise and Industry Provisions		
Building Orientation - Enterprise and Industry	• Where ancillary offices are proposed, the orientation of the office should address the street frontage, or a riparian corridor (if the building adjoins a riparian corridor). • Blank walls with no colour change or articulation are not permitted where a building interfaces the Riparian Corridor.	Yes | No | N/A
Building Setback – Enterprise and Industry	Building Setback Control – See Figure 30 for specific road and location reference listed below. <u>Southern Interface Road 03 (west of central riparian corridor)</u> • The minimum building setback from the boundary is 13m. • Minimum landscape setback is 10m. *High Bay Warehouse (24-52.5m in height – from existing ground level) • The minimum building setback from the boundary is 20m from southern interface of road. • Minimum landscape setback is 10m. • Minimum 15 building setback adjacent to riparian corridors. <u>Northern Interface of Road 03 (west of central riparian corridor)</u> • Minimum 13m Building Setback to Local Road where off-street parking is included within the landscaped area (which must be minimum of 6m).	Yes | No | N/A

Design Element	Verification Criteria	Comply
Building Setback – Enterprise and Industry (cont.)	*High Bay Warehouse (24-52.5m in height – from natural ground level) • The minimum building setback from the boundary is 15m. • Minimum landscape setback is 6m. <u>Southern Interface of Road 02</u> • The minimum building setback from the boundary 13m. • Minimum landscape setback is 10m. *High Bay Warehouse (24-52.5m in height – from natural ground level) • The minimum building setback from the boundary is 20m. • Minimum landscape setback is 10m. • Minimum 15m building setback from the boundary. *Note – the controls for high bay warehouses can be varied where the design has been endorsed by a Design Review Panel. <u>All Landscape Setbacks</u> • Access for fire rescue and fire trail circulation must not be included within the landscape setback area.	
Building Composition – Enterprise and Industry	• The component of a building predominantly for public use must be closer to the street than the private elements or service areas.	Yes | No | N/A
Massing – Enterprise and Industry	<u>General</u> • Built form is modulated and height differences are mitigated through design interventions such as definition of private and public spaces, programmatic functions, feature walls or the use of colours and finishes. • Development is to have dedicated footpaths to reach access points.	

Design Element	Verification Criteria	Comply
Massing – Enterprise and Industry (cont.)	<u>High Bay Warehouse</u> • Where a high bay warehouse development is proposed, the footprint associated with the high bay part of the warehouse component which is more than 35m in height but less than 52.5m in height, must not exceed more than 60% of building gross footprint. • High bay development is to be broken down into 2 or more building components with differing heights.	Yes | No | N/A
Materials & Colours – Enterprise and Industry	• The material and colours proposed should accentuate forms, durable and serve as protection to the buildings, breakdown building dimensions and massing to create an appropriate scale and amenity to the public domain.	Yes | No | N/A
Communal Areas & Landscaping – Enterprise and Industry	• Warehouse development which includes an ancillary office is to allow for a dedicated outdoor area to provide communal open space. • The communal areas must be integrated with soft and/or hard landscaping. • Communal areas is to be supported with seating and weather protection.	Yes | No | N/A
Planting in car parking areas – Enterprise and Industry	• For every 10 car parking spaces provided, an island planter bed of minimum 2.5m wide is to be provided.	Yes | No |N/A
Sustainability – Enterprise and Industry	• The development must provide ready to charge EV charging points to at least 5% of all car parking spaces • Roofing materials must utilize material with the following Sun Reflectivity Index (SRI): – For roof pitched < 15deg: SRI 82 – For roof pitched > 15deg: SRI 39	Yes | No |N/A

APPENDIX D - RIPARIAN CORRIDOR LANDSCAPE DRAWING DOCUMENTATION

Badgerys Creek IPG

Riparian Corridor Landscape Documentation

Badgerys Creek, NSW 2555

Drawing Schedule

Drawing Number	Drawing Title	Scale
000	Landscape Coversheet	N/A
001	Landscape Legend and Plant Schedule	N/A
100	Landscape Masterplan	1:4000
101	Landscape Plan - Sheet 01	1:500
102	Landscape Plan - Sheet 02	1:500
103	Landscape Plan - Sheet 03	1:500
104	Landscape Plan - Sheet 04	1:500
105	Landscape Plan - Sheet 05	1:500
106	Landscape Plan - Sheet 06	1:500
107	Landscape Plan - Sheet 07	1:500
108	Landscape Plan - Sheet 08	1:500
109	Landscape Plan - Sheet 09	1:500
110	Landscape Plan - Sheet 10	1:500
111	Landscape Plan - Sheet 11	1:500
112	Landscape Plan - Sheet 12	1:500
113	Landscape Plan - Sheet 13	1:500
114	Landscape Plan - Sheet 14	1:500
115	Landscape Plan - Sheet 15	1:500
116	Landscape Plan - Sheet 16	1:500
117	Landscape Plan - Sheet 17	1:500
301	Landscape Detail Plan - Sheet 01	1:250
302	Landscape Detail Plan - Sheet 02	1:250
303	Landscape Detail Plan - Sheet 03	1:250
304	Landscape Detail Plan - Sheet 04	1:250
305	Landscape Detail Plan - Sheet 05	1:250
501	Landscape Details	As Shown
502	Landscape Details	As Shown
503	Landscape Details	As Shown
504	Landscape Details	As Shown
505	Landscape Details	As Shown
506	Landscape Details	As Shown
507	Landscape Details	As Shown
508	Landscape Details	As Shown

NOT FOR CONSTRUCTION

The contractor shall check and verify all work on site (including work by others) before commencing the landscape installation. Any discrepancies are to be reported to the Project Manager or Landscape Architect prior to commencing work. Do not scale this drawing. Any required dimensions not shown shall be referred to the Landscape Architect for confirmation.

Issue	Revision Description	Drawn	Check	Date
E	Civil Coordination	JW	NM	22.05.2024
D	Civil Coordination	JW	NM	12.04.2024
C	Civil Coordination	JW	NM	01.03.2024
B	Civil Coordination	JW	NM	24.11.2023
A	For Comment	JW	NM	15.11.2023

A1

SITE IMAGE

Landscape Architects

Level 1, 3-5 Baptist Street
Redfern NSW 2016
Australia

Tel: (61 2) 8332 5600
Fax: (61 2) 9698 2877
www.siteimage.com.au

Client
Ingham Property Group

Project
Badgerys Creek IPG
Badgerys Creek, NSW 2555

Drawing Name
Landscape Coversheet

PRELIMINARY

Scale

Job Number	Drawing Number	Issue
SS22-5042	000	E

General

- Site Boundary
- Lot Boundary
- VMP Extents
  Refer to Vegetation Management Plan
- Site Image Riparian Boundary
- Top of Bank
- VRZ - Vegetation Riparian Zone
- Existing Level
  To be read in conjunction with survey, civil and architectural plans
  Ex XX.XX
- Proposed Levels
  To be read in conjunction with civil and architectural plans
  RL XX.XX
- Proposed Top of Wall Level
  To be read in conjunction with civil and architectural plans
  TOW XX.XX

Softworks

- Existing Tree to be Retained
  Refer Arborist Report
- Proposed Tree
  Refer Plant Schedule
  XX
- Planting Mix Type 1
  Amenity Node Planting
  Refer Plant Schedule
  M1
- Planting Mix Type 2
  Plains Planting Matrix
  Refer Plant Schedule
  M2
- Planting Mix Type 3
  Batter Planting Matrix
  Refer Plant Schedule
  M3
- Basin Type 1
  Wetland Basin
  Refer Plant Schedule and Landscape Details
  B1
- Basin Type 2
  Storage Pond
  Refer Plant Schedule and Landscape Details
  B2
- Basin Type 3
  Sediment Basin
  Refer Plant Schedule and Landscape Details
  B3
- Basin Type 4
  Bio-Retention Basin
  Refer Plant Schedule and Landscape Details
  B4
- Basin Type 5
  Trunk Drainage
  Refer Plant Schedule and Landscape Details
  B5
- Proposed Turf
  T

Hardworks

- Paving Type 1
  Active Transport Corridor Paving
  P1
- Paving Type 2
  Footpath Paving
  P2
- Paving Type 3
  Feature Paving
  P3
- Paving Type 4
  Decomposed Granite Paving
  P4
- Paving Type 5
  Basin Maintenance Track
  P5
- Paving Type 6
  Softfall
  P6
- Paving Type 7
  Raised Decking
  P7
- Edging Type 1
  Concrete Edging
  ED1
- Awning Structure Over
- Block Seat Type 1
  BS1
- Picnic Setting Type 1
  PS1
- BBQ Type 1
  BBQ
- Wall Seat Type 1
  WS1
- Exercise Equipment Type 1
  EE1
- Exercise Equipment Type 2
  EE2
- Exercise Equipment Type 3
  EE3
- Play Equipment Type 1
  PE1
- Play Equipment Type 2
  PE2
- Play Equipment Type 3
  PE3
- Planter Type 1
  Community Garden Planter
  PL1
- Boulder Type 1
  Sandstone Boulders
  BO1
- Stormwater Pits
  Refer Civil Engineers Drawings
- Stormwater Headwall
  Refer Civil Engineers Drawings
- Rock lined Scour Protection
  Refer Civil Engineers Drawings
- Fence Type 1
  Pool Style Fencing
  F1

RIPARIAN CORRIDOR

Botanic Name	Common Name	Mature Size (h x w) (m)
TREES		
Angophora floribunda	Rough-barked Apple	
Acacia decurrens	Black Wattle	10 x 4
Acacia implexa	Hickory Wattle	10 x 6
Acacia parramattensis	Sydney Green Wattle	12 x 6
Alphitonia excelsa	Red Ash	7 x 5
Backhousia citriodora	Lemon Myrtle	8 x 4
Backhousia myrtifolia	Grey Myrtle	6 x 3
Brachychiton acerifolium	Illawarra Flame Tree	30 x 12
Callistemon salignus		10 x 5
Casuarina cunninghamiana	River Oak	12 x 6
Casuarina glauca	Swamp Oak	20 x 4
Corymbia maculata	Spotted Gum	15 x 12
Eucalyptus amplifolia	Cabbage Gum	28 x 8
Eucalyptus baueriana	Blue Box	20 x 12
Eucalyptus crebra	Narrow Leaf Red Ironbark	35 x 10
Eucalyptus elata	River White Gum	40 x 8
Eucalyptus eugenioides	White Stringybark	30 x 8
Eucalyptus fibrosa	Red Ironbark	35 x 8
Eucalyptus moluccana	Grey Box	30 x 8
Eucalyptus tereticornis	Forest Red Gum	20 x 8
Glochidion ferdinandi	Cheese Tree	30 x 8
Melia azedarach	White Cedar	12 x 8
Melaleuca decora	Paperbark	10 x 5
Melaleuca ericifolia	Swamp Paperbark	12 x 8
Melaleuca linarifolia	Narrow-leaved paperbark	8 x 3
Melaleuca styphelioides	Prickly Paperbark	9 x 8
Tristaniopsis laurina	Water Gum	5 x 8
SMALL TREES		
Acacia spectabilis	Mudgee Wattle	6 x 4
Acacia binervia	Coast Wattle	2 x 3
Acacia pubescens	Downy Wattle	5 x 3
Leptospermum petersonii	Lemon Scented Tea Tree	5 x 3.4
Trema tomentosa	Peach bush	8 x 6
SHRUBS		
Acacia falcata	Sickle Wattle	
Acmena smithii	Lilly Pilly	
Atriplex nummularia	Old-man Saltbush	3 x 4
Breynia oblongifolia	Coffee Bush	3 x 1.5
Bursaria spinosa	Blackthorn	3 x 2
Correa alba	White Correa	1.5 x 1
Correa reflexa	Native Fuchsia	1.2 x 1
Daviesia ulicifolia		1.5 x 1
Dillwynia sieberi	Prickly-Parrot Pea	
Dodonea viscosa	Giant Hop Bush	2 x 1
Indigofera australis	Australian Indigo	2 x 1
Leptospermum petersonii	Lemon Scented Tea Tree	5 x 3
Ozothamnus diosmifolius	Rice Flower	
Pimelea glauca	Smooth Rice Flower	.6 x .6
Pultenaea parviflora	Sydney Bush-Pea	1.8 x 1
Westringia fruticosa	Coastal Rosemary	2 x 1.5
GROUNDCOVERS AND GRASSES		
Carex appressa		1 x 1
Centella asiatica	Centella	
Chloris truncata	Windmill grass	0.5 x 1
Cheilanthes sieberi	Mulga Fern	
Chrysocephalum apiculatum	Yellow buttons	0.6 x 1
Cissus antarctica	Kangaroo Vine	.5 x 2
Clematis glycinoides var. Glycinoides	Guwalyari	
Commelina cyanea	Scurvyweed	Climber
Cymbopogon refractus	Barbed Wire Grass	1 x 1
Dianella caerulea	Flax Lily	.5 x .4
Dianella longifolia	Flax Lily	0.5 x 0.8
Dichelachne micrantha	Short Hair Plume Grass	0.2 x 1
Dichondra repens	Kidney Weed	0.3 x 2
Einadia hastata	Berry Saltbush	
Entolasia marginata	Panic Grass	.4 x .3
Echinopogon ovatus	Hedgehog Grass	0.2 x 0.3
Entolasia stricta	Wiry Panic	1.5 x 8
Eustrephus latifolius	Wombat berry	3 x 2
Goodenia hederacea	Ivy Goodenia	.8 x 1
Hardenbergia violacea	Purple Coral Pea	.6 x .7
Hibbertia scandens	Climbing Guinea Flower	climber
Imperata cylindrica	Cogon Blady Grass	1 x 1
Juncus usitatus	Common Rush	1.2 x 0.8
Lomandra filiformis	Wattle Mat Rush	1.2 x 1
Lomandra longifolia	Common Mat Rush	1.3 x 1.5
Microlaena stipoides var.stipoides	Weeping Grass	.2 x 1
Oplismenus aemulus	Basket Grass	.3 x 1
Pandorea pandorana	Wonga Vine	climber
Parsonsia straminea	Silkpod	Climber
Plectranthus parviflorus	Cockspur Flower	0.3 x 0.8
Poa labillardieri	Tussock	1 x .5
Pratia purpurascens	Purpleroot	0.2 x 1
Stephania japonica	Snake vine	Climber
Veronica cinerea	Speedwell	
Viola hederacea	Native Violet	0.1 x 2
Wahlenbergia gracilis	Native Bluebell	
Wahlenbergia stricta	Tall Bluebell	0.6 x 0.7

TRUNK DRAINAGE

Botanic Name	Common Name	Mature Size (h x w) (m)
RIPARIAN EDGE PLANTING		
TREES		
Angophora floribunda	Rough Barked Apple	20 x 6
Corymbia maculata	Spotted Gum	30 x 10
Eucalyptus amplifolia	Cabbage Gum	30 x 10
Eucalyptus crebra	Narrow Leafed Ironbark	15 x 8
Eucalyptus fibrosa	Broad Leafed Ironbark	20 x 8
Melaleuca linarifolia	Flax Leafed Paperbark	10 x 4
Melaleuca stypheliioides	Prickly Leaved Paperbark	10 x 3
SHRUBS AND ACCENTS		
Acacia falcata	Wattle	3 x 2
Acmena smithii	Lilly Pilly	3 x 2
Breynia oblongifolia	Coffee Bush	1.5 x 1.5
Indigofera australis	Australian Indigo	2.5 x 2
GRASSES AND GROUNCOVERS		
Dianella longifolia	Blue Flax-lily	0.8 x 0.8
Imperata cylindrica	Imperata	0.4 x 1
Lomandra filiformis	Mat Rush	0.2 x 0.2
Poa labillardieri	Poa	0.5 x 0.5
Themeda australis	Kangaroo Grass	1 x 0.4
Dichondra repens	Kidney Weed	0.15 x spreading
Goodenia hederacea	Ivy Goodenia	0.2 x 1
Hardenbergia violacea	Native Sarsaparilla	0.3 x Spreading
Pratia pedunculata	Trailing Pratia	0.2 x 1
Hardenbergia violacea	Native Sarsaparilla	0.3 x Spreading
Wahlenbergia gracillis	Australian Bluebell	0.8 x 0.2
UPPER BANK EPHEMERAL PLANTING (OCCASIONALLY SUBMERGED)		
Dianella longifolia	Blue Flax-lily	0.8 x 0.8
Dichondra micrantha	Kidney Weed	0.15 x spreading
Dichondra repens	Kidney Weed	0.15 x spreading
Imperata cylindrica 'Yalba"	Imperata	0.4 x 1
Lomandra filiformis	Mat Rush	0.2 x 0.2
Microleana stipoides	Weeping Grass	0.4 x 0.4
Poa labillardieri	Poa	0.5 x 0.5
LOWER BANK EPHEMERAL PLANTING (REGULARLY SUBMERGED)		
Carex appressa	Tall Sedge	0.5 x 0.5
Ficinia nodosa	Club Rush	1 x 1
Juncus usitatus	Common Rush	1 x 0.5
Lomandra longifolia	Mat Rush	1 x1

WETLAND

Botanic Name	Common Name	Mature Size (h x w) (m)
EPHEMERAL (NTWL TO 0.30M ABOVE)		
Carex appressa	Tall Sedge	0.5 x 0.5
Dianella longifolia	Blue Flax-lily	0.8 x 0.8
Ficinia nodosa	Club Rush	1 x 1
Juncus usitatus	Common Rush	1 x 0.5
Lomandra filiformis	Mat Rush	0.2 x 0.2

BASIN PLANITNG

Botanic Name	Common Name	Mature Size (h x w) (m)
BASIN PLANTING - STORAGE POND, SEDIMENT BASIN & BIO-RETENTION BASIN		
Carex appressa	Tall Sedge	0.5 x 0.5
Dianella longifolia	Blue Flax-lily	0.8 x 0.8
Ficinia nodosa	Club Rush	1 x 1
Imperata cylindrica 'Yalba"	Imperata	0.4 x 1
Juncus usitatus	Common Rush	1 x 0.5
Lomandra filiformis	Mat Rush	0.2 x 0.2
Lomandra longifolia	Mat Rush	1 x1
Poa labillardieri	Poa	0.5 x 0.5

NOTE:
No more than 20% of any individual species is to be used within each planting area.
Plants are to be mixed to ensure all species are distributed throughout the planting area, with species randomly grouped to best match localised ecological conditi

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Issue	Revision Description	Drawn	Check	Date
C	Civil Coordination	JW	NM	01.03.2024
B	Civil Coordination	JW	NM	24.11.2023
A	For Comment	JW	NM	15.11.2023

A1

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Ingham Property Group

Project
Badgerys Creek IPG
Badgerys Creek, NSW 2555

Drawing Name
Landscape Legend and Plant Schedule

PRELIMINARY

Scale

Job Number	Drawing Number	Issue
SS22-5042	001	C

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Legend

Key Plan

Issue	Revision Description	Drawn	Check	Date
F	Civil Coordination	JW	NM	07.02.2025
E	Civil Coordination	JW	NM	22.05.2024
D	Civil Coordination	JW	NM	12.04.2024
C	Civil Coordination	JW	NM	01.03.2024
B	Civil Coordination	JW	NM	24.11.2023
A	For Comment	JW	NM	15.11.2023

A1

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Badgerys Creek, NSW 2555

Drawing Name
Landscape Masterplan

PRELIMINARY

Scale 1:4000 @ A1

Job Number: SS22-5042
Drawing Number: 100
Issue: F

NOTE:
Existing tree locations and retention to be confirmed and coordinated with civil works. Civil stormwater infrastructure to be coordinated with landscape amenity locations and features.

Badgerys Creek

For continuation refer 102

For continuation refer 107

EXISTING GAS

Lot 11

Local Industrial Road 02

Temporary ICP

+RL 62.50

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B	Civil Coordination	JW	NM	24.11.2023
A	For Comment	JW	NM	15.11.2023

Legend
Refer to sheet 001 for Landscape Legend

Key Plan

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Ingham Property Group

Project
Badgerys Creek IPG
Badgerys Creek, NSW 2555

Drawing Name
Landscape Plan
Sheet 01

PRELIMINARY

Scale 1:500 @ A1
0 5 10 25 50m

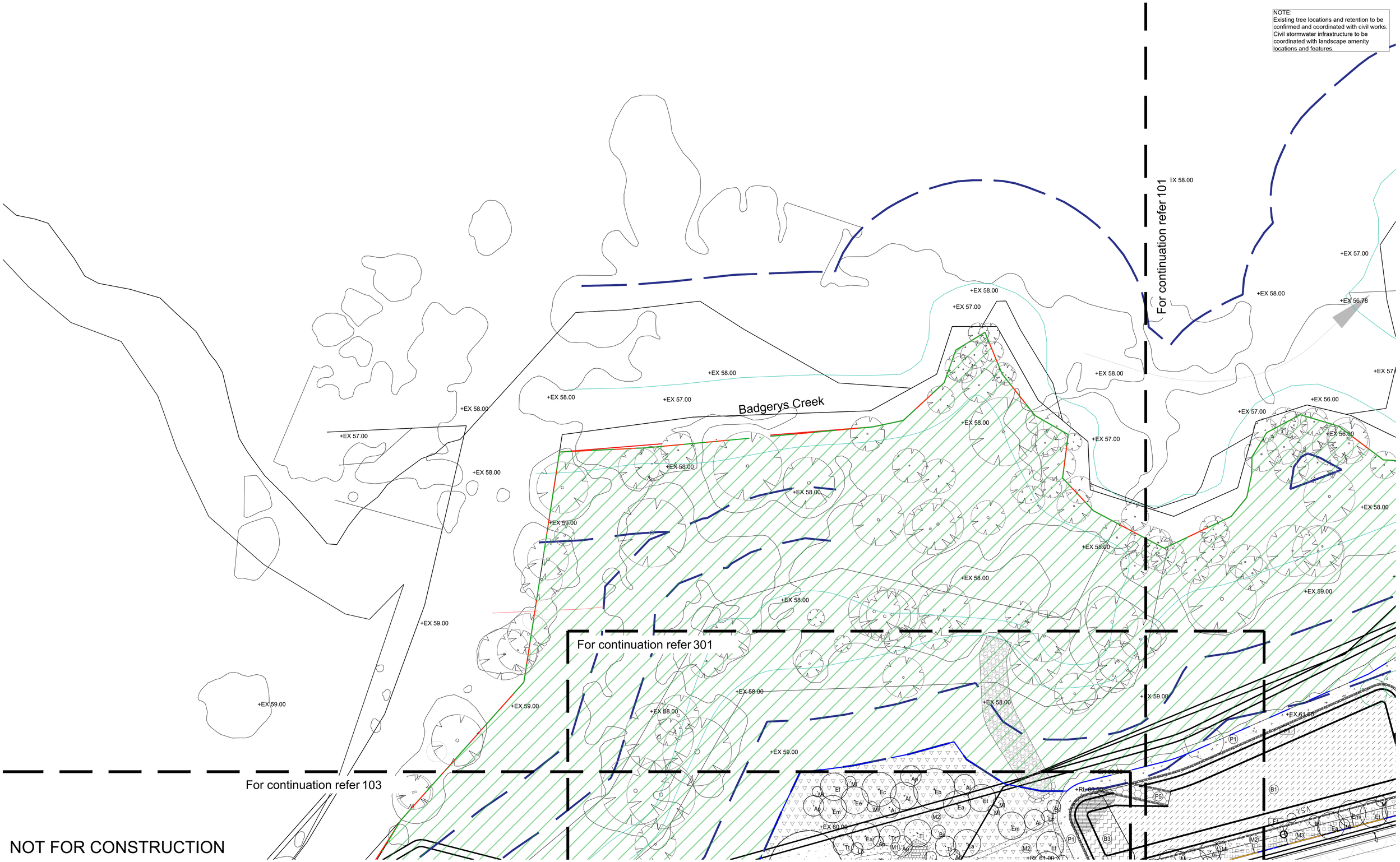
Job Number
SS22-5042

Drawing Number
101

Issue
F

A1

NOTE:
Existing tree locations and retention to be confirmed and coordinated with civil works. Civil stormwater infrastructure to be coordinated with landscape amenity locations and features.



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D	Civil Coordination	JW	NM	12.04.2024
C	Civil Coordination	JW	NM	01.03.2024
B	Civil Coordination	JW	NM	24.11.2023
A	For Comment	JW	NM	15.11.2023

Legend
Refer to sheet 001 for Landscape Legend

Key Plan

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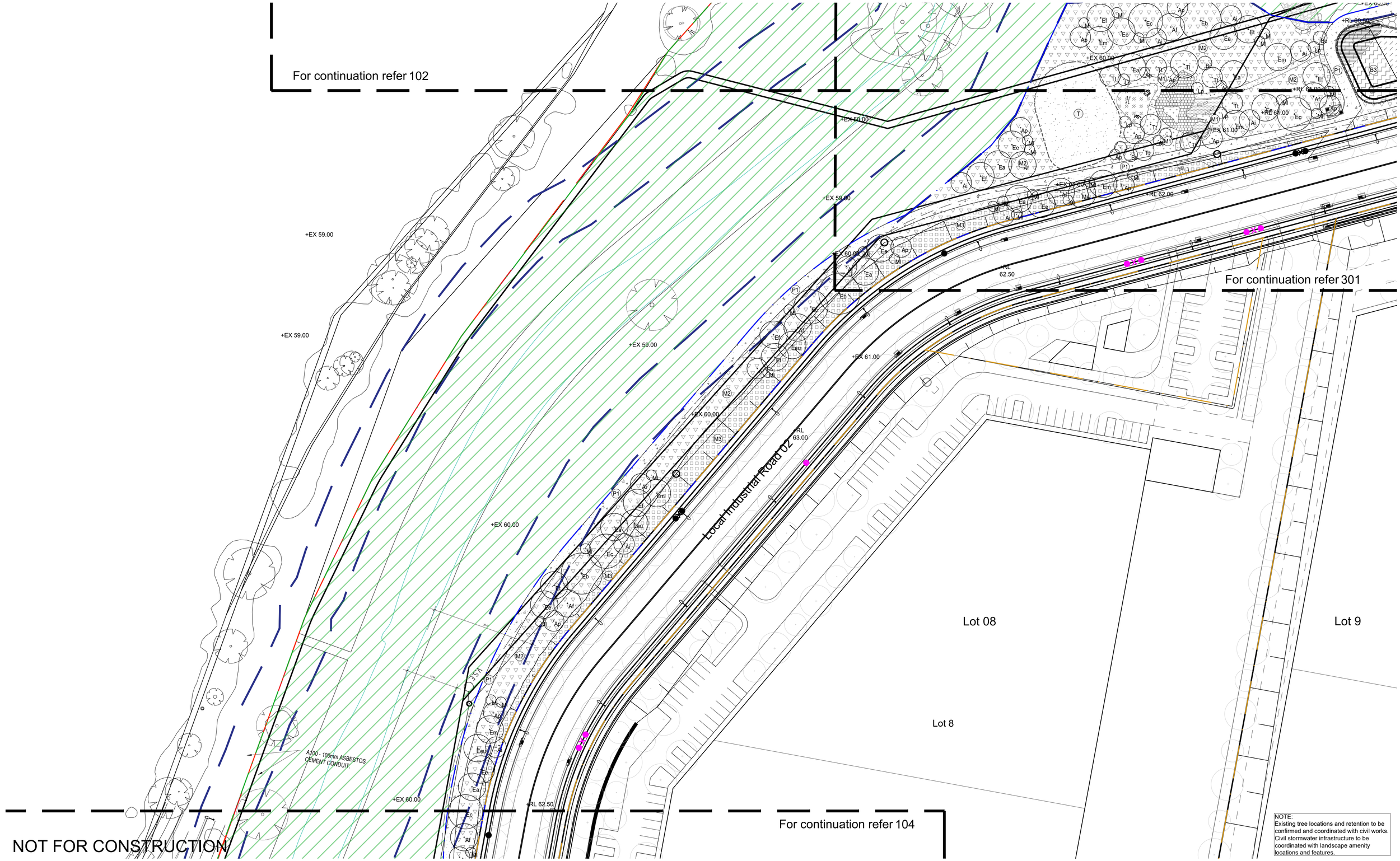
Project
Badgerys Creek IPG
Badgerys Creek, NSW 2555

Drawing Name
Landscape Plan
Sheet 02

PRELIMINARY

Scale 1:500 @ A1
0 5 10 25 50m
Job Number SS22-5042
Drawing Number 102
Issue F

A1



NOT FOR CONSTRUCTION

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D	Civil Coordination	JW	NM	12.04.2024
C	Civil Coordination	JW	NM	01.03.2024
B	Civil Coordination	JW	NM	24.11.2023
A	For Comment	JW	NM	15.11.2023

Legend
Refer to sheet 001 for Landscape Legend

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Project
Badgerys Creek IPG
Badgerys Creek, NSW 2555

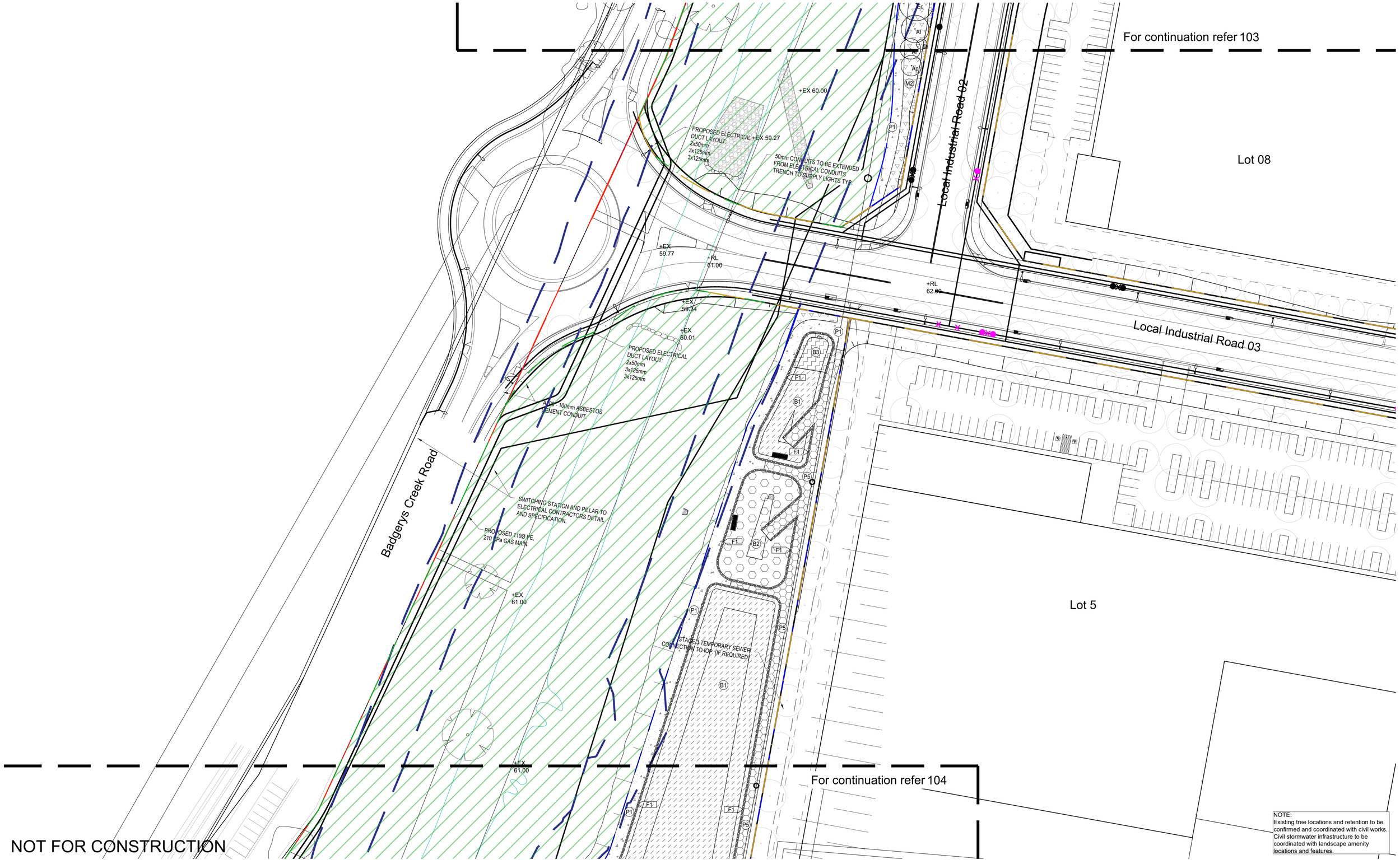
Drawing Name
Landscape Plan
Sheet 03

PRELIMINARY

Scale 1:500 @ A1
0 5 10 25 50m

Job Number: SS22-5042
Drawing Number: 103
Issue: F

A1



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C	Civil Coordination	JW	NM	01.03.2024
B	Civil Coordination	JW	NM	24.11.2023
A	For Comment	JW	NM	15.11.2023

Legend
Refer to sheet 001 for Landscape Legend

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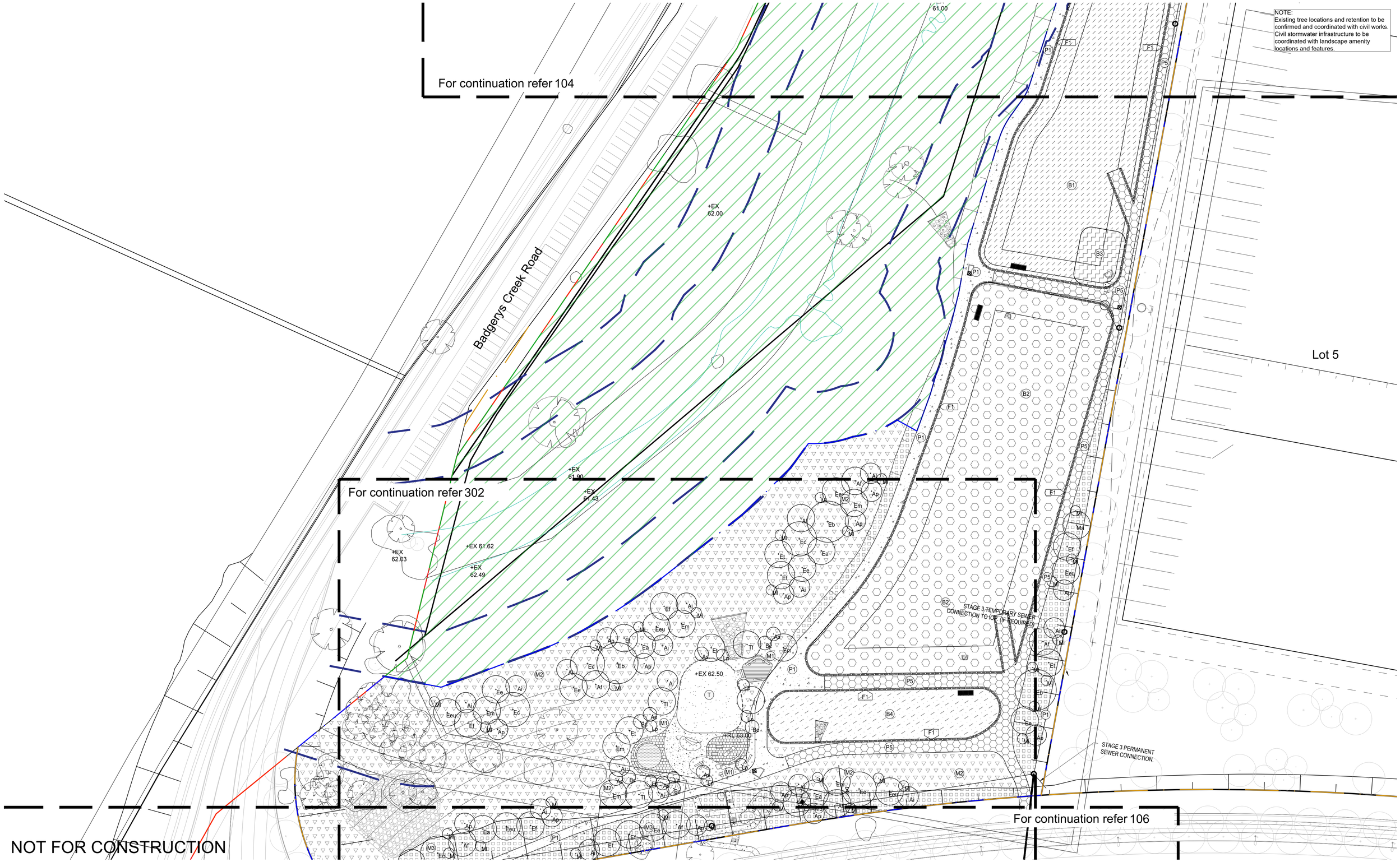
Project
Badgerys Creek IPG
Badgerys Creek, NSW 2555

Drawing Name
Landscape Plan
Sheet 04

PRELIMINARY

Scale 1:500 @ A1
0 5 10 25 50m
Job Number SS22-5042
Drawing Number 104
Issue F

A1



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C	Civil Coordination	JW	NM	01.03.2024
B	Civil Coordination	JW	NM	24.11.2023
A	For Comment	JW	NM	15.11.2023

Legend

Refer to sheet 001 for Landscape Legend

Key Plan

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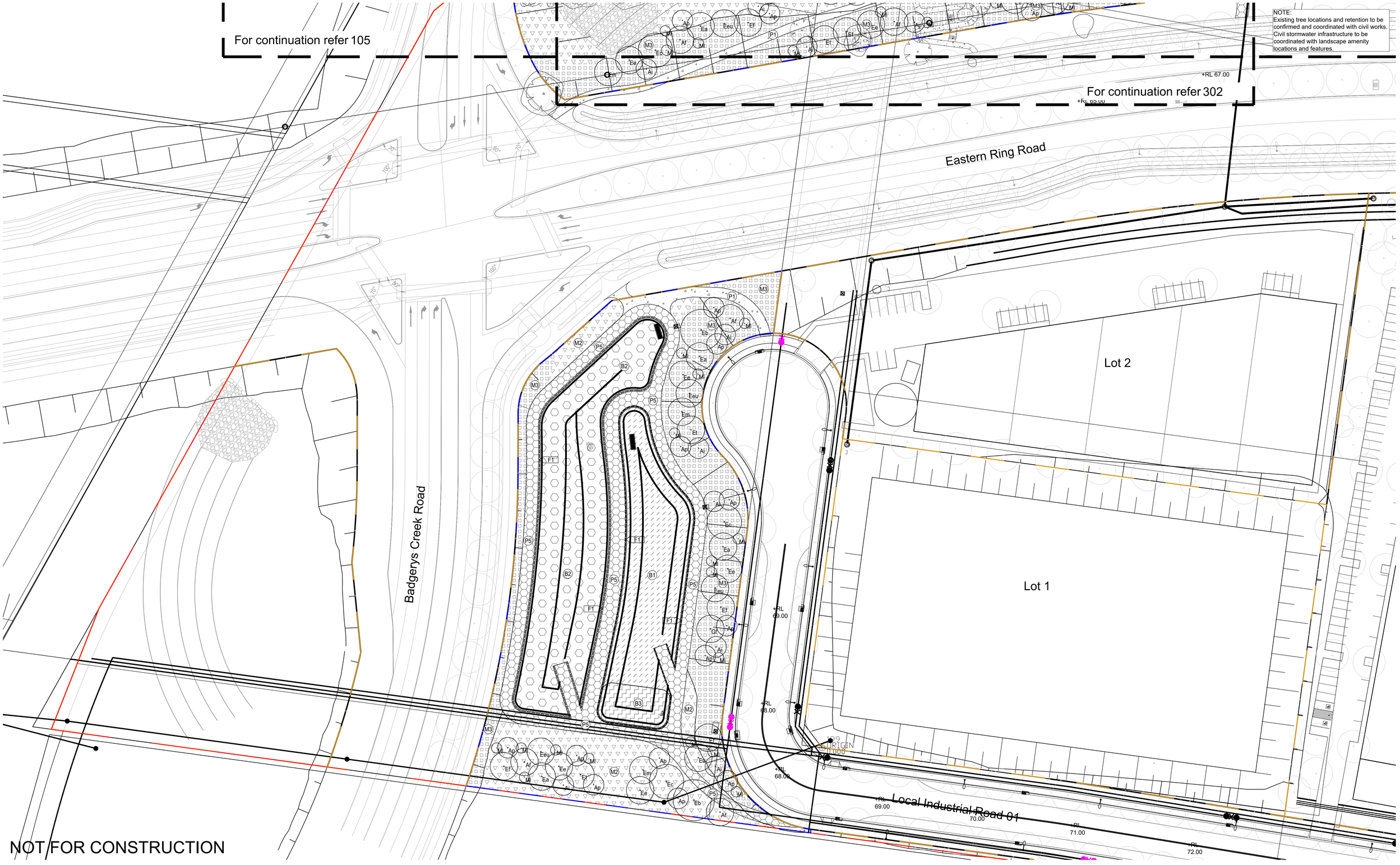
Project
Badgerys Creek IPG
Badgerys Creek, NSW 2555

Drawing Name
Landscape Plan
Sheet 05

PRELIMINARY

Scale 1:500 @ A1
0 5 10 25 50m
Job Number SS22-5042
Drawing Number 105
Issue F

A1



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C	Civil Coordination	JW	NM	01.03.2024
B	Civil Coordination	JW	NM	24.11.2023
A	For Comment	JW	NM	15.11.2023

A1

Legend

Refer to sheet 001 for Landscape Legend

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Project
Badgerys Creek IPG
Badgerys Creek, NSW 2555

Drawing Name
Landscape Plan
Sheet 06

PRELIMINARY

Scale 1:500 @ A1
0 5 10 25 50m

Job Number
SS22-5042

Drawing Number
106

Issue
F

NOTE:
Existing tree locations and retention to be confirmed and coordinated with civil works. Civil stormwater infrastructure to be coordinated with landscape amenity locations and features.

Lot 11

Lot 10

Lot 12

For continuation refer 101

For continuation refer 108

Local Industrial Road 02

Local Industrial Road 04

Local Industrial Road 06

+EX 60.00
+EX 59.00
+EX 61.00
+EX 57.21
+EX 57.58
+EX 56.69
+EX 58.00
+EX 57.19
+EX 58.31
+EX 58.70
+EX 58.82
+EX 57.41
+EX 58.60
+EX 57.53
+EX 57.55
+EX 58.81
+EX 57.14
+EX 57.88
+EX 59.11
+EX 58.18
+EX 62.00
+EX 63.00
+RL 62.50
+RL 62.00
+RL 59.50
+RL 60.50
+RL 61.50

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Issue	Revision Description	Drawn	Check	Date
G	Civil Coordination	JW	NM	07.02.2025
F	Response to Comments	LH	NM	19.06.2024
E	Civil Coordination	JW	NM	22.05.2024
D	Civil Coordination	JW	NM	12.04.2024
C	Civil Coordination	JW	NM	01.03.2024
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A	For Comment	JW	NM	15.11.2023

Legend
Refer to sheet 001 for Landscape Legend

Key Plan

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Client
Ingham Property Group

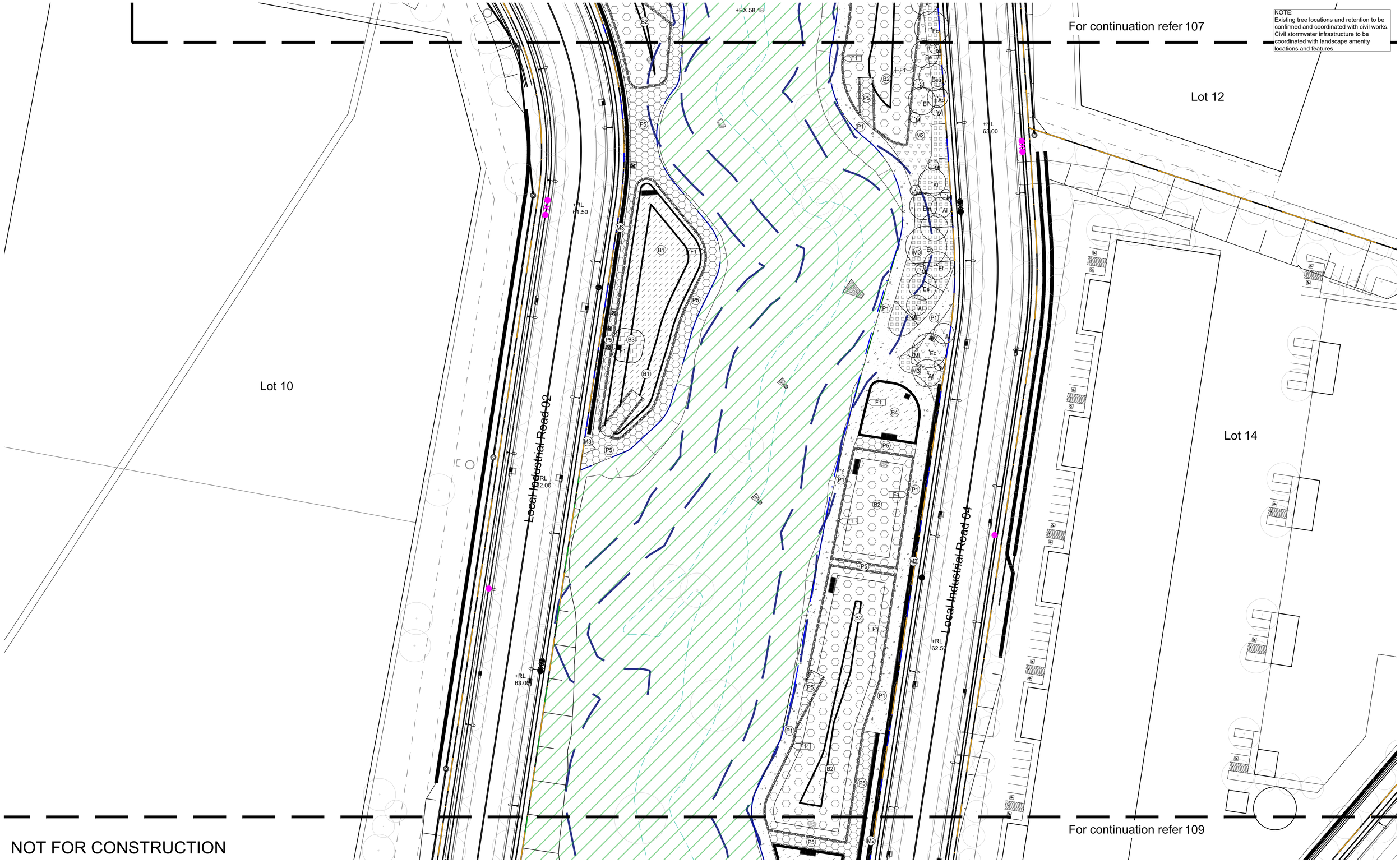
Project
Badgerys Creek IPG
Badgerys Creek, NSW 2555

Drawing Name
Landscape Plan
Sheet 07

PRELIMINARY

Scale 1:500 @ A1
0 5 10 25 50m
Job Number SS22-5042
Drawing Number 107
Issue G

A1



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E	Civil Coordination	JW	NM	22.05.2024
D	Civil Coordination	JW	NM	12.04.2024
C	Civil Coordination	JW	NM	01.03.2024
B	Civil Coordination	JW	NM	24.11.2023
A	For Comment	JW	NM	15.11.2023

Legend
Refer to sheet 001 for Landscape Legend

Key Plan

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Client
Ingham Property Group

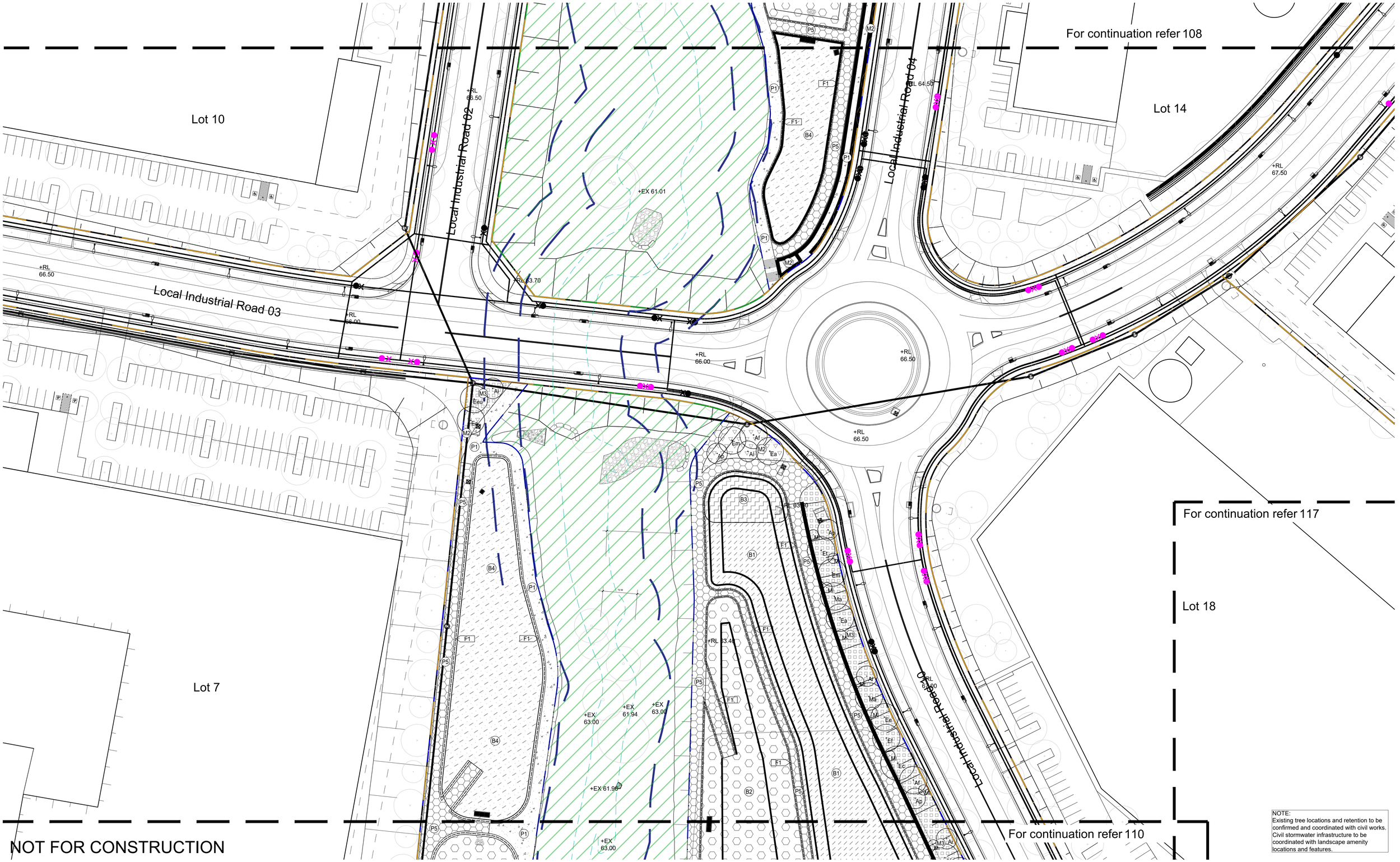
Project
Badgerys Creek IPG
Badgerys Creek, NSW 2555

Drawing Name
Landscape Plan
Sheet 08

PRELIMINARY

Scale 1:500 @ A1
0 5 10 25 50m
Job Number
SS22-5042
Drawing Number
108
Issue
G

A1



NOT FOR CONSTRUCTION

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C	Civil Coordination	JW	NM	01.03.2024
B	Civil Coordination	JW	NM	24.11.2023
A	For Comment	JW	NM	15.11.2023

Legend
Refer to sheet 001 for Landscape Legend

Key Plan

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Client
Ingham Property Group

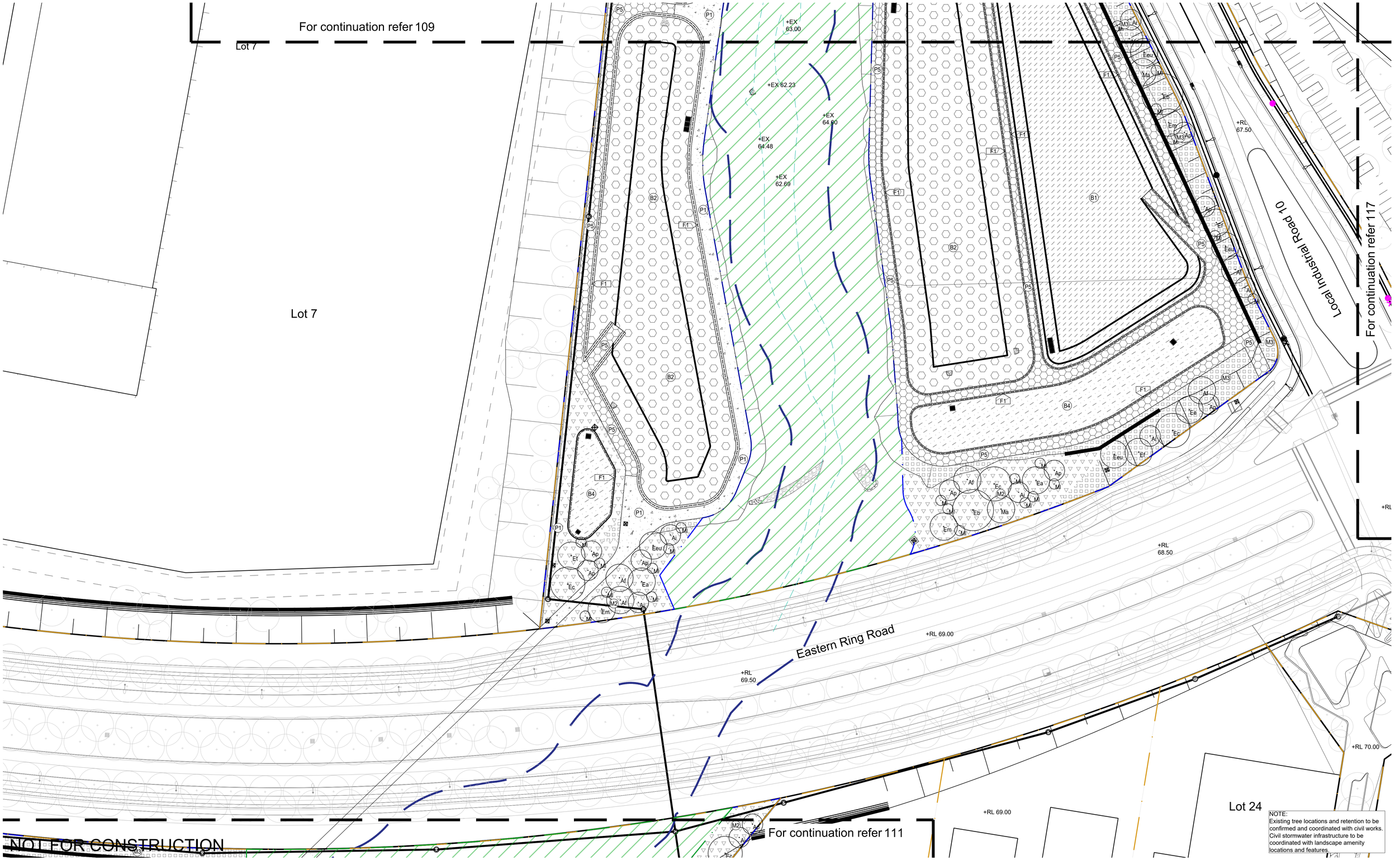
Project
Badgerys Creek IPG
Badgerys Creek, NSW 2555

Drawing Name
Landscape Plan
Sheet 09

PRELIMINARY

Scale 1:500 @ A1
0 5 10 25 50m
Job Number SS22-5042
Drawing Number 109
Issue G

A1



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Issue	Revision Description	Drawn	Check	Date
F	Civil Coordination	JW	NM	07.02.2025
E	Civil Coordination	JW	NM	22.05.2024
D	Civil Coordination	JW	NM	12.04.2024
C	Civil Coordination	JW	NM	01.03.2024
B	Civil Coordination	JW	NM	24.11.2023
A	For Comment	JW	NM	15.11.2023

Legend

Refer to sheet 001 for Landscape Legend

Key Plan

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Client

Ingham Property Group

Project

Badgerys Creek IPG

Badgerys Creek, NSW 2555

Drawing Name

Landscape Plan

Sheet 10

PRELIMINARY

Scale 1:500 @ A1

0 5 10 25 50m

Job Number

SS22-5042

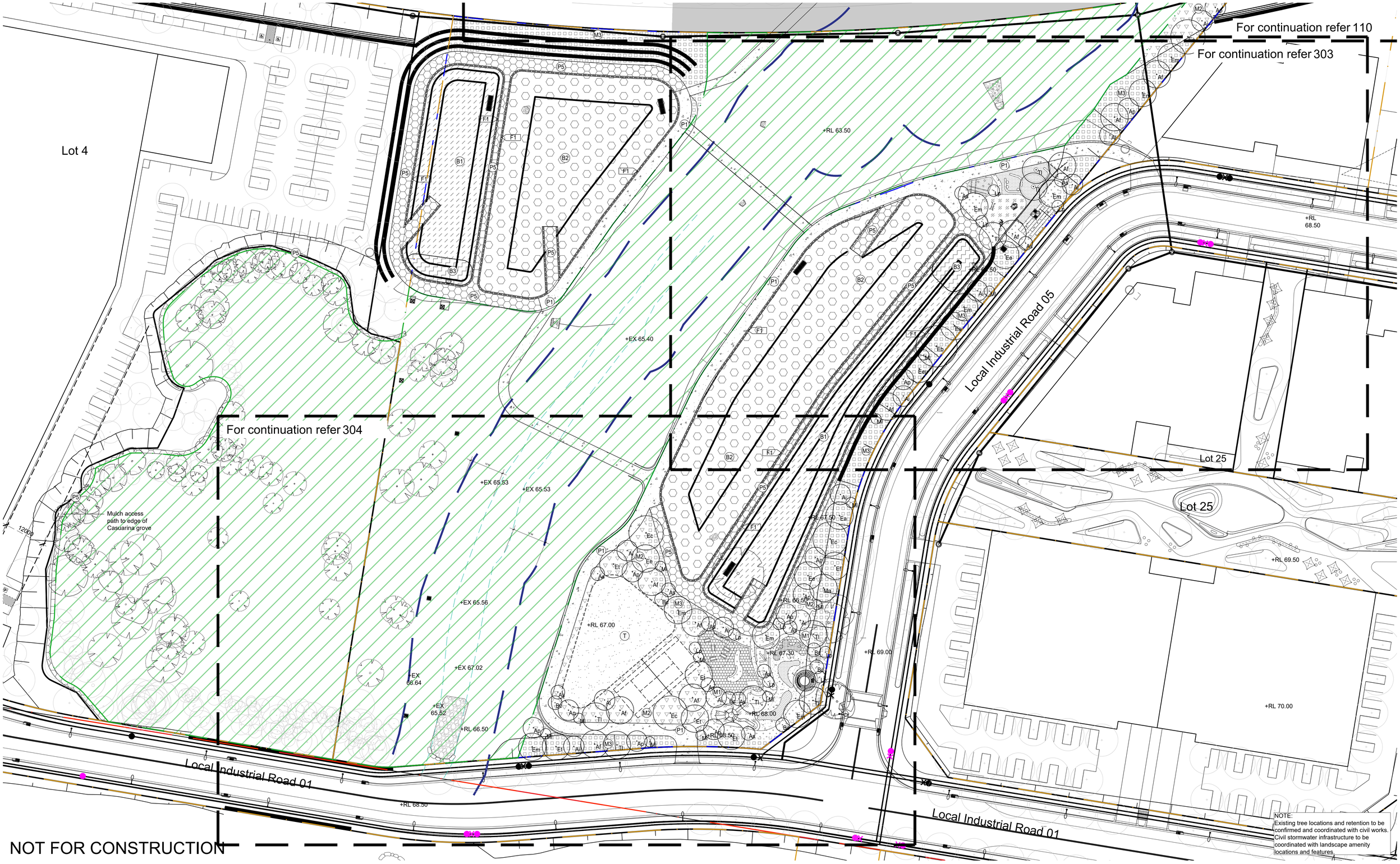
Drawing Number

110

Issue

F

A1



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C	Civil Coordination	JW	NM	01.03.2024
B	Civil Coordination	JW	NM	24.11.2023
A	For Comment	JW	NM	15.11.2023

Legend

Refer to sheet 001 for Landscape Legend

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Project
Badgerys Creek IPG
Badgerys Creek, NSW 2555

Drawing Name
Landscape Plan
Sheet 11

PRELIMINARY

Scale 1:500 @ A1
0 5 10 25 50m

Job Number
SS22-5042

Drawing Number
111

Issue
F

A1

NOTE:
Existing tree locations and retention to be confirmed and coordinated with civil works. Civil stormwater infrastructure to be coordinated with landscape amenity locations and features.

Local Industrial Road 07

Local Industrial Road 07

Collector Road 11

Lot 19

Lot 20

For continuation refer 113

+RL 65.50

+RL 64.50

+RL 63.50

+RL 62.50

+RL 64.50

+RL 64.50

M1202-03

M1202-04

NOT FOR CONSTRUCTION

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C	Civil Coordination	JW	NM	01.03.2024
B	Civil Coordination	JW	NM	24.11.2023
A	For Comment	JW	NM	15.11.2023

Legend
Refer to sheet 001 for Landscape Legend

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Project
Badgerys Creek IPG
Badgerys Creek, NSW 2555

Drawing Name
Landscape Plan
Sheet 12

PRELIMINARY

Scale 1:500 @ A1
0 5 10 25 50m

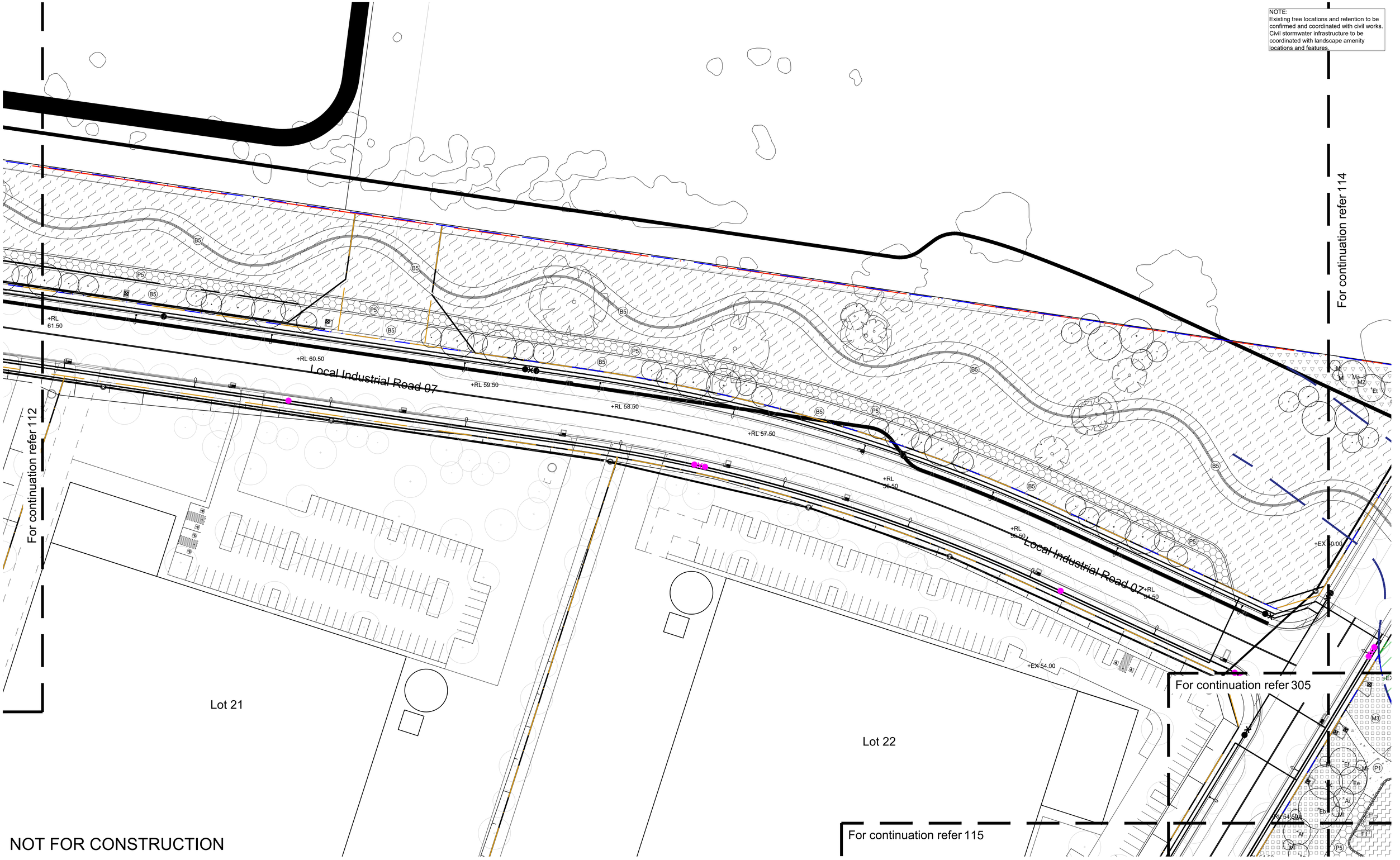
Job Number
SS22-5042

Drawing Number
112

Issue
F

A1

NOTE:
Existing tree locations and retention to be confirmed and coordinated with civil works. Civil stormwater infrastructure to be coordinated with landscape amenity locations and features.



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C	Civil Coordination	JW	NM	01.03.2024
B	Civil Coordination	JW	NM	24.11.2023
A	For Comment	JW	NM	15.11.2023

Legend
Refer to sheet 001 for Landscape Legend

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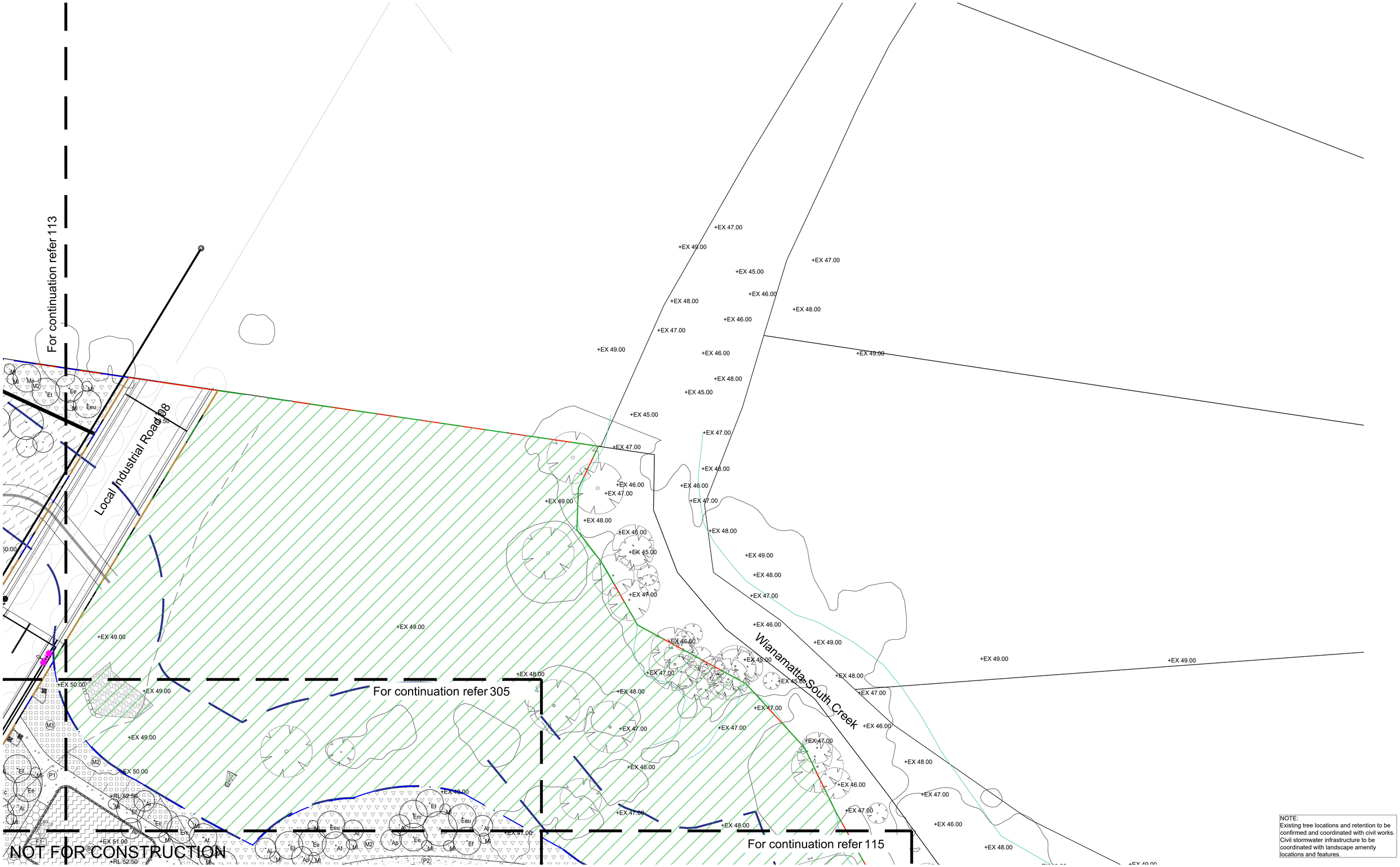
Project
Badgerys Creek IPG
Badgerys Creek, NSW 2555

Drawing Name
Landscape Plan
Sheet 13

PRELIMINARY

Scale 1:500 @ A1
0 5 10 25 50m
Job Number SS22-5042
Drawing Number 113
Issue F

A1



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C	Civil Coordination	JW	NM	01.03.2024
B	Civil Coordination	JW	NM	24.11.2023
A	For Comment	JW	NM	15.11.2023

Legend
Refer to sheet 001 for Landscape Legend

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Project
Badgerys Creek IPG
Badgerys Creek, NSW 2555

Drawing Name
Landscape Plan
Sheet 14

PRELIMINARY

Scale 1:500 @ A1
0 5 10 25 50m
Job Number SS22-5042
Drawing Number 114
Issue F

A1

For continuation refer 113

For continuation refer 114

Lot 22

Lee-Holm Industrial Road 66

For continuation refer 305

For continuation refer 116

NOT FOR CONSTRUCTION

NOTE:
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A	For Comment	JW	NM	15.11.2023

Legend
Refer to sheet 001 for Landscape Legend

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Client
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Project
Badgerys Creek IPG
Badgerys Creek, NSW 2555

Drawing Name
Landscape Plan
Sheet 15

PRELIMINARY

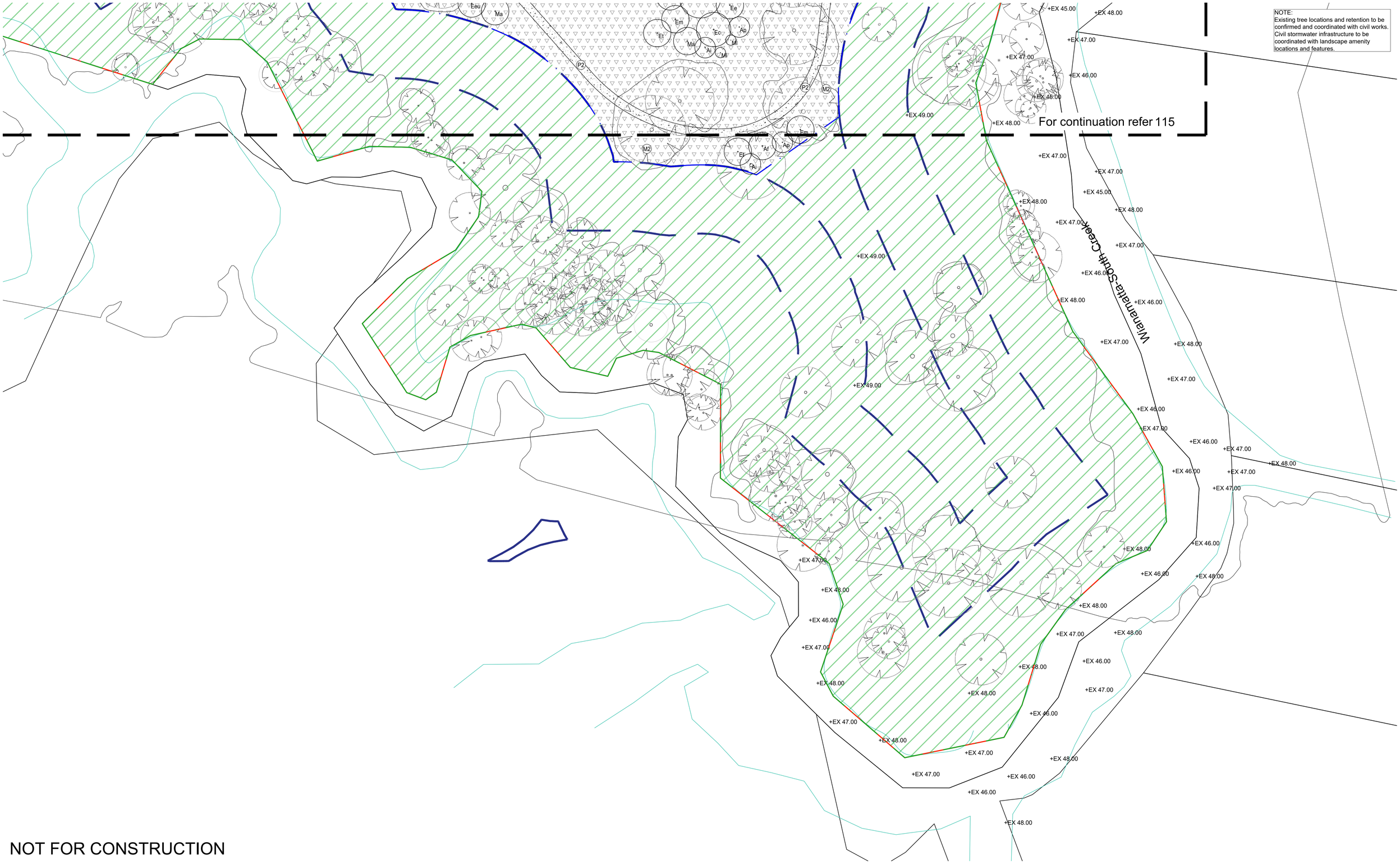
Scale 1:500 @ A1
0 5 10 25 50m

Job Number
SS22-5042

Drawing Number
115

Issue
F

A1



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A	For Comment	JW	NM	15.11.2023

Legend
Refer to sheet 001 for Landscape Legend

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Project
Badgerys Creek IPG
Badgerys Creek, NSW 2555

Drawing Name
Landscape Plan
Sheet 16

PRELIMINARY

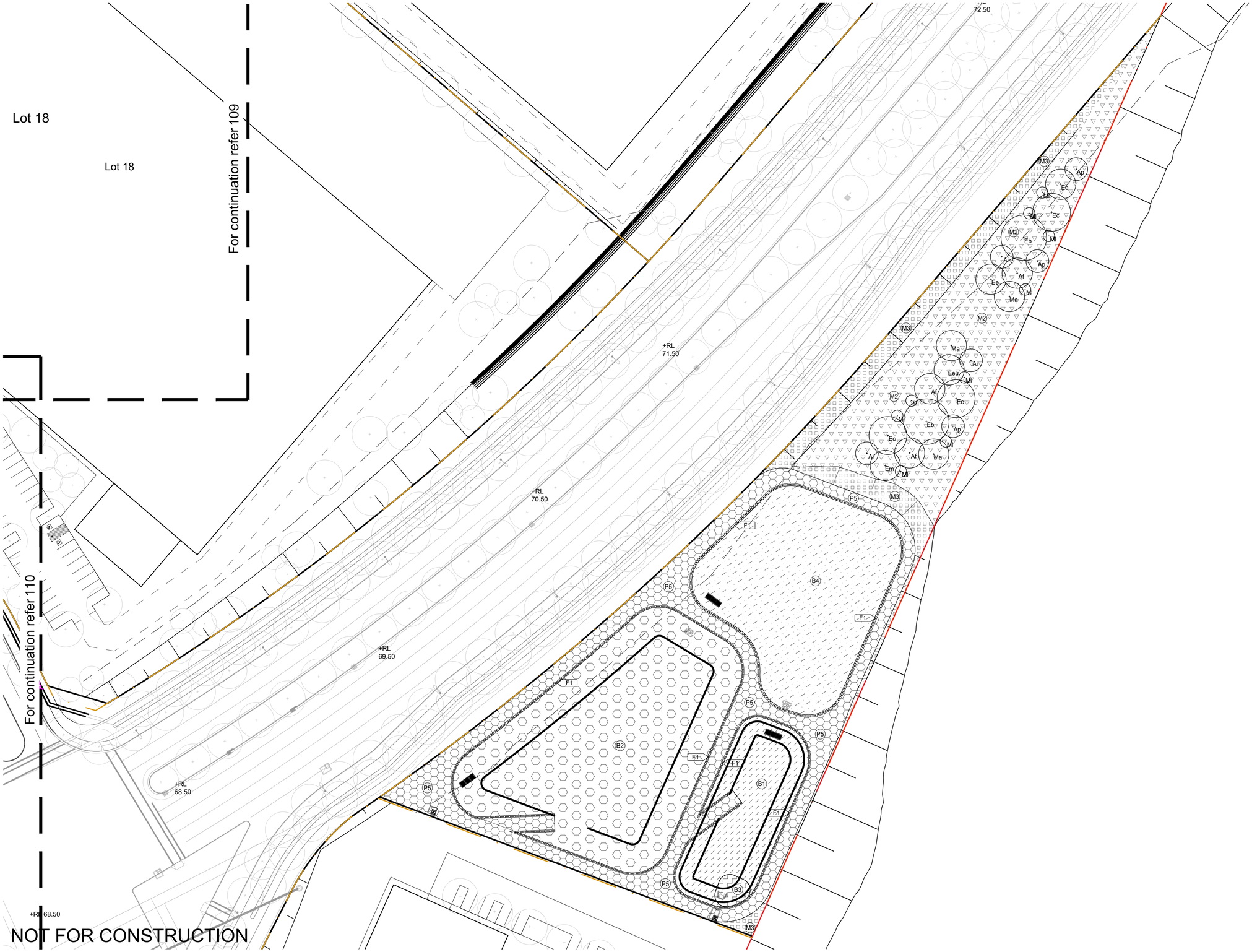
Scale 1:500 @ A1
0 5 10 25 50m

Job Number
SS22-5042

Drawing Number
116

Issue
F

A1



NOTE:
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Issue	Revision Description	Drawn	Check	Date
B	Civil Coordination	JW	NM	07.02.2025
A	Civil Coordination	JW	NM	22.05.2024

A1

Legend
Refer to sheet 001 for Landscape Legend

Key Plan

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Project
Badgerys Creek IPG
Badgerys Creek, NSW 2555

Drawing Name
Landscape Plan
Sheet 16

PRELIMINARY

Scale 1:500 @ A1
0 5 10 25 50m
Job Number SS22-5042
Drawing Number 117
Issue B

NOTE:
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D	Civil Coordination	JW	NM	12.04.2024
C	Civil Coordination	JW	NM	01.03.2024
B	Civil Coordination	JW	NM	24.11.2023
A	For Comment	JW	NM	15.11.2023

Legend
Refer to sheet 001 for Landscape Legend

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Project
Badgerys Creek IPG
Badgerys Creek, NSW 2555

Drawing Name
Detail Landscape Plan
Sheet 01

PRELIMINARY

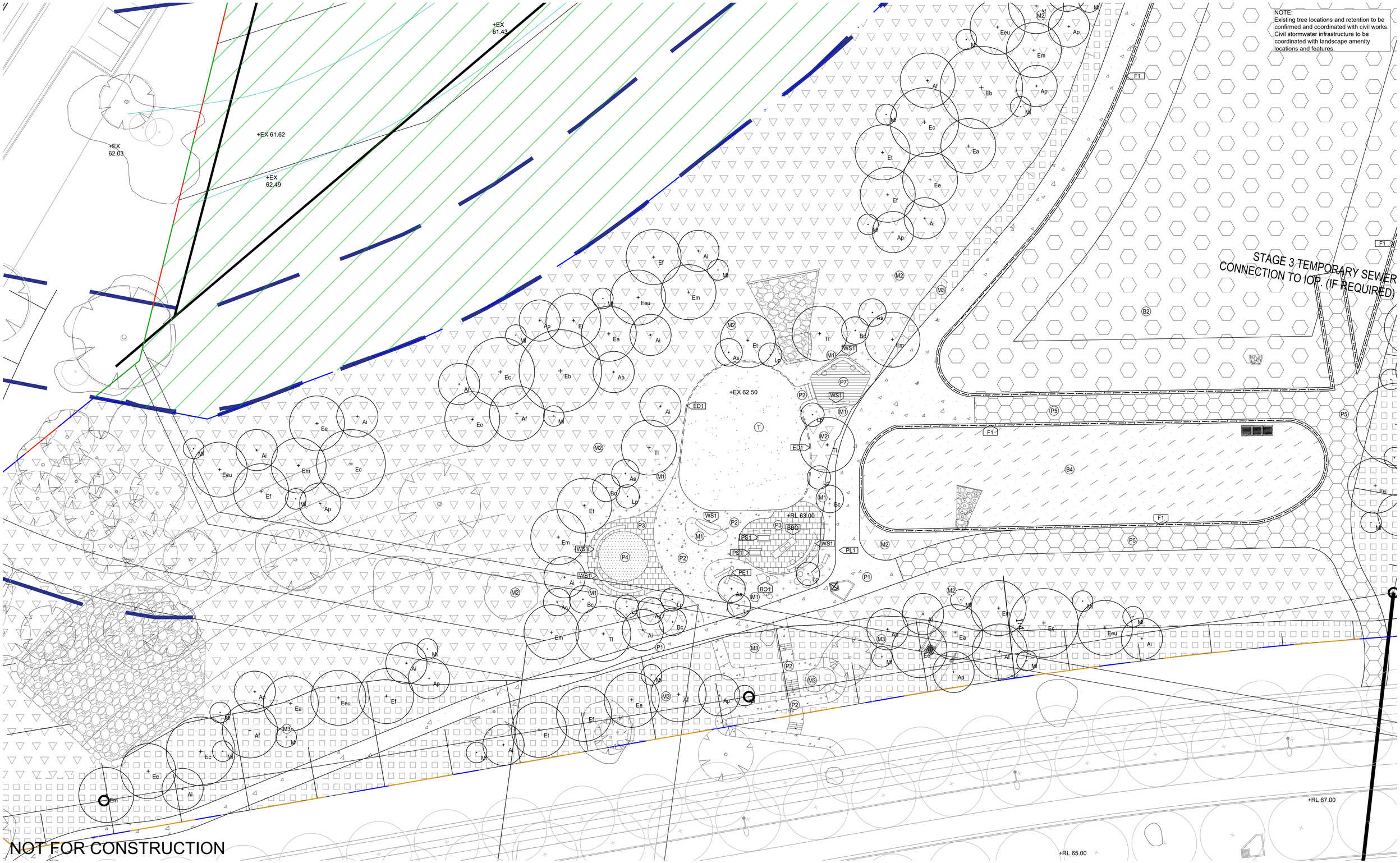
Scale 1:250 @ A1
0 1 2 4 6 10m

Job Number
SS22-5042

Drawing Number
301

Issue
F

A1



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C	Civil Coordination	JW	NM	01.03.2024
B	Civil Coordination	JW	NM	24.11.2023
A	For Comment	JW	NM	15.11.2023

Legend

Refer to sheet 001 for Landscape Legend

Key Plan

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Project

Badgerys Creek IPG

Badgerys Creek, NSW 2555

Drawing Name

Detail Landscape Plan

Sheet 02

PRELIMINARY

Scale 1:250 @ A1

0 1 2 4 6 10m

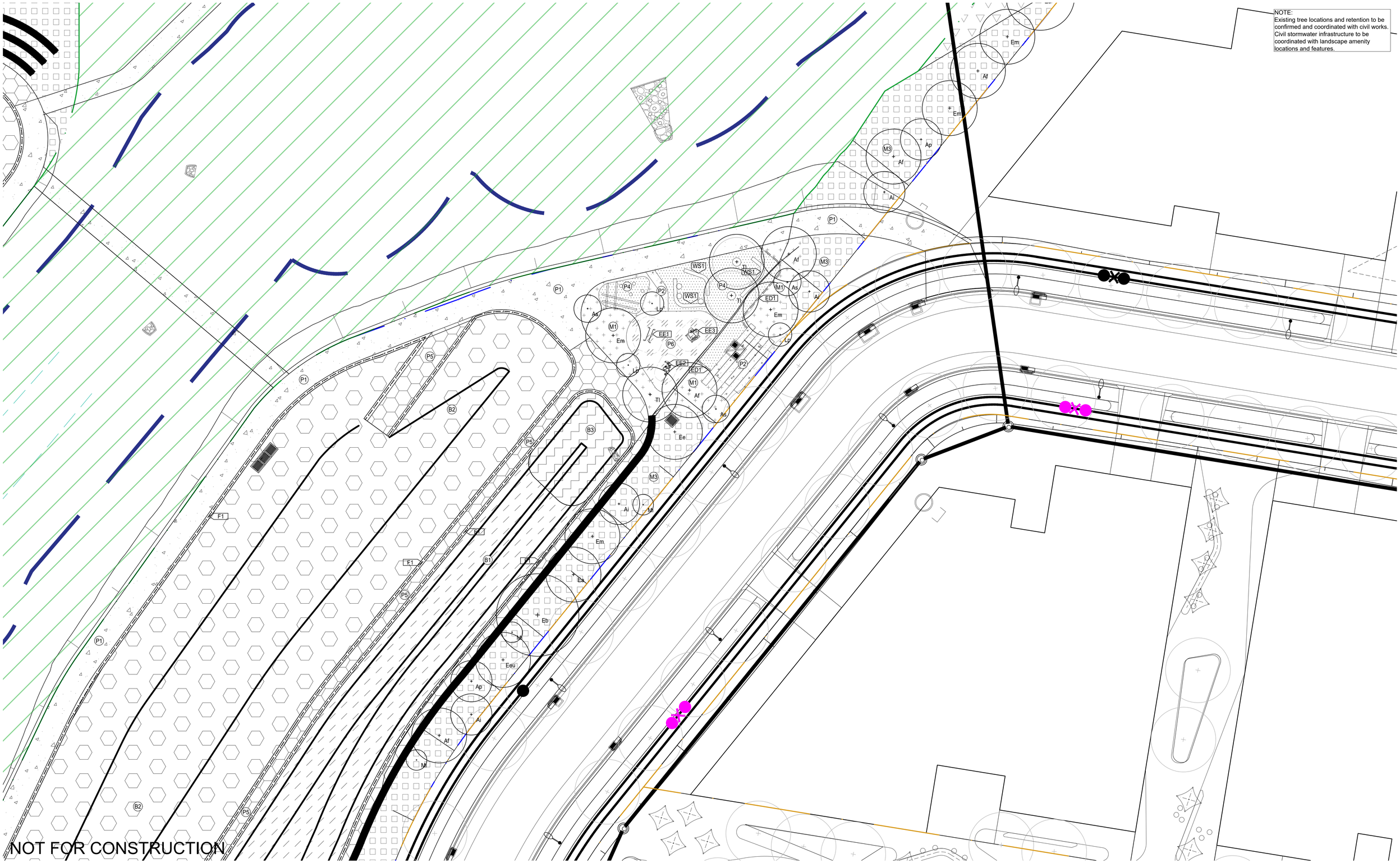
Job Number: SS22-5042

Drawing Number: 302

Issue: F

A1

NOTE:
Existing tree locations and retention to be confirmed and coordinated with civil works. Civil stormwater infrastructure to be coordinated with landscape amenity locations and features.



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C	Civil Coordination	JW	NM	01.03.2024
B	Civil Coordination	JW	NM	24.11.2023
A	For Comment	JW	NM	15.11.2023

A1

Legend
Refer to sheet 001 for Landscape Legend

Key Plan

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Client
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Project
Badgerys Creek IPG
Badgerys Creek, NSW 2555

Drawing Name
Detail Landscape Plan
Sheet 03

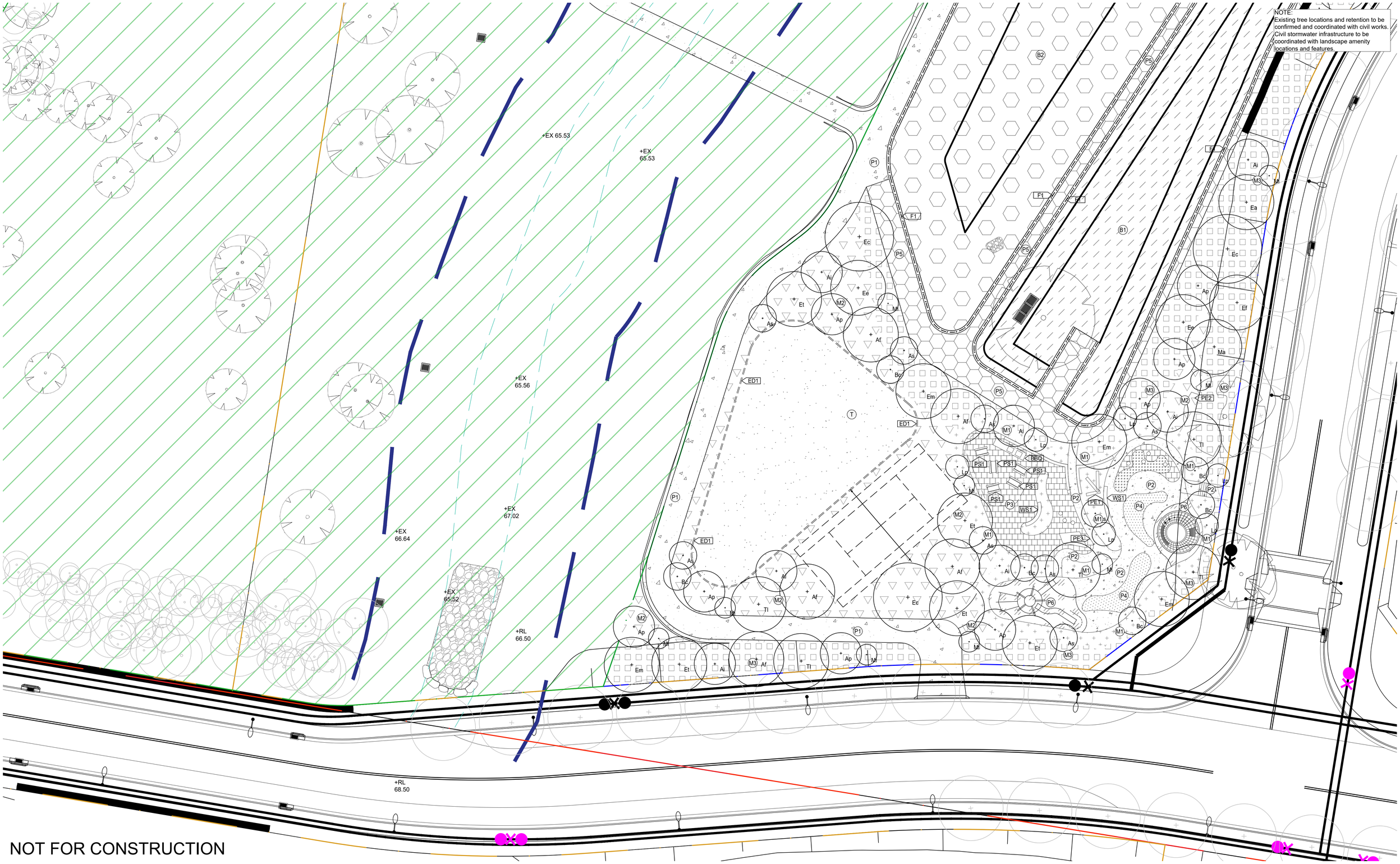
PRELIMINARY

Scale 1:250 @ A1
0 1 2 4 6 10m

Job Number SS22-5042

Drawing Number 303

Issue F



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D	Civil Coordination	JW	NM	12.04.2024
C	Civil Coordination	JW	NM	01.03.2024
B	Civil Coordination	JW	NM	24.11.2023
A	For Comment	JW	NM	15.11.2023

A1

Legend

Refer to sheet 001 for Landscape Legend

Key Plan

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Project

Badgerys Creek IPG

Badgerys Creek, NSW 2555

Drawing Name

Detail Landscape Plan

Sheet 04

PRELIMINARY

Scale 1:250 @ A1

0 1 2 4 6 10m

Job Number

SS22-5042

Drawing Number

304

Issue

F

NOTE:
Existing tree locations and retention to be confirmed and coordinated with civil works. Civil stormwater infrastructure to be coordinated with landscape amenity locations and features.

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B	Civil Coordination	JW	NM	24.11.2023
A	For Comment	JW	NM	15.11.2023

Legend
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Key Plan

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Ingham Property Group

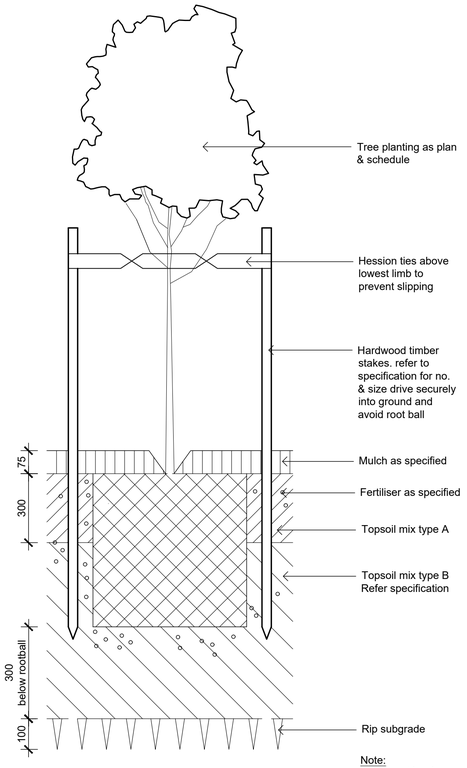
Project
Badgerys Creek IPG
Badgerys Creek, NSW 2555

Drawing Name
Detail Landscape Plan
Sheet 05

PRELIMINARY

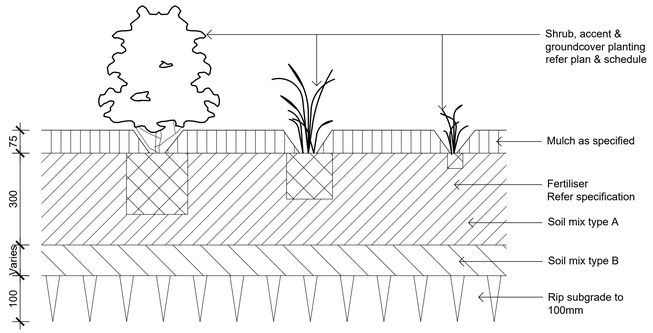
Scale 1:250 @ A1
0 1 2 4 6 10m
Job Number SS22-5042
Drawing Number 305
Issue F

A1

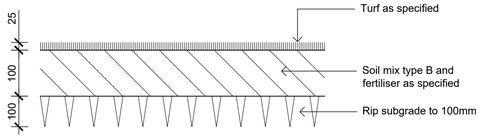


Note:
Install root barrier as required.
Refer specification.

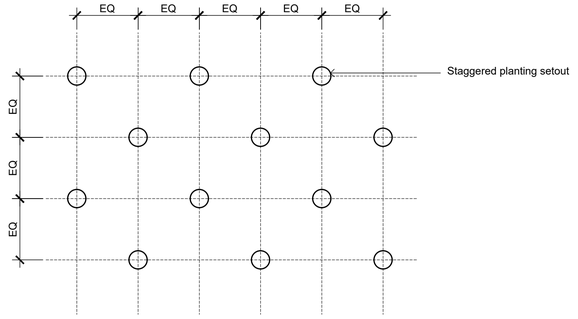
Detail 75-200L Tree Planting on Grade
1:10



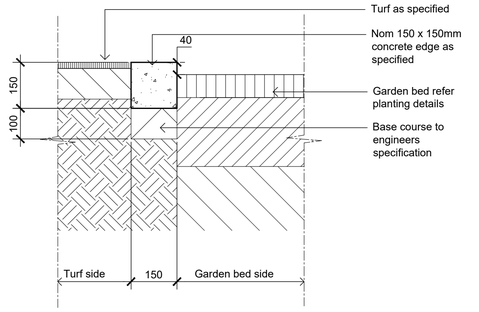
Detail Shrub Accent & Groundcover Planting on Grade
1:10



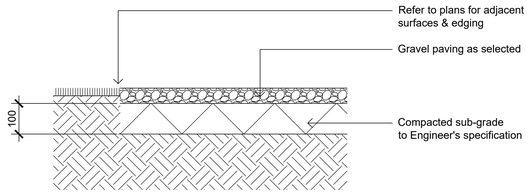
Detail Turf on Even Grade
1:10



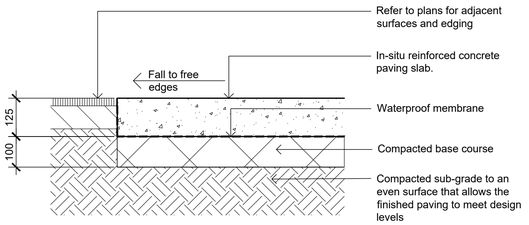
Matrix Planting
1:10



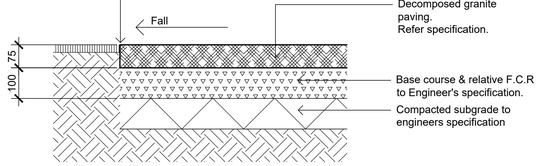
Typical Concrete Edge
1:10



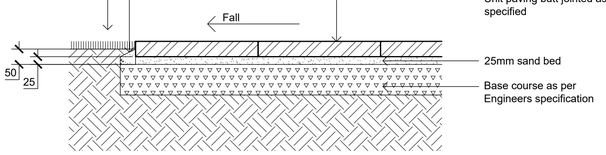
Gravel Paving on Grade
1:10



Insitu Concrete Paving - On grade
1:10



Decomposed Granite Paving on Grade
1:10



Unit Pavers on Grade
1:10

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Legend

Key Plan

Issue	Revision Description	Drawn	Check	Date
A	For Comment	JW	NM	15.11.2023

A1

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www.siteimage.com.au

Client
Ingham Property Group

Project
Badgerys Creek IPG
Badgerys Creek, NSW 2555

Drawing Name
Landscape Details

PRELIMINARY

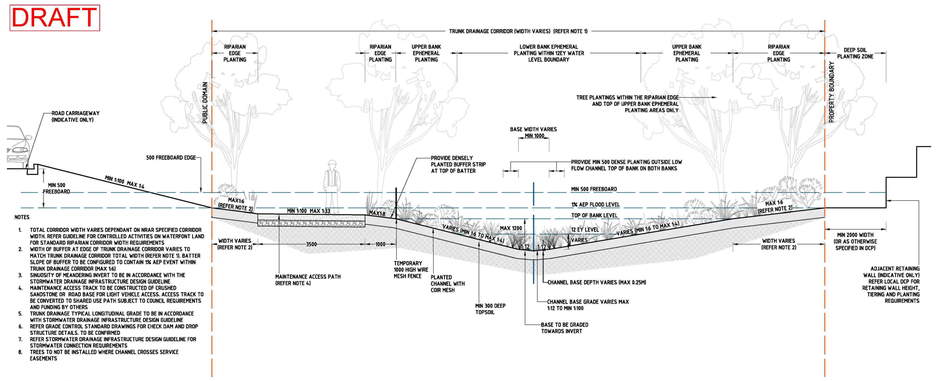
Scale 1:250 @ A1
0 1 2 4 6 10m

Job Number
SS22-5042

Drawing Number
501

Issue
A

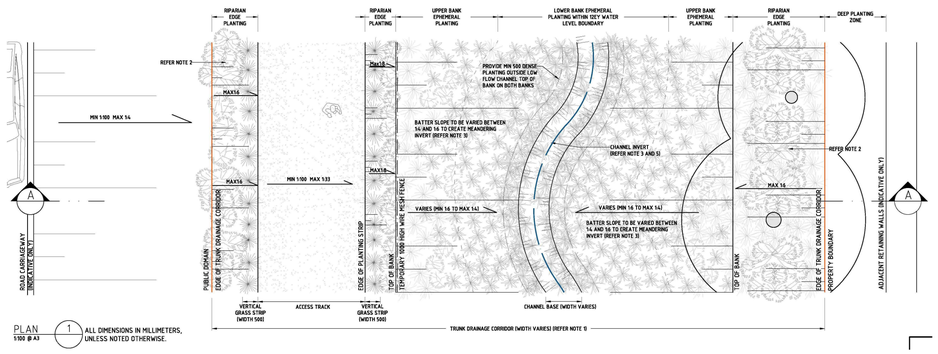
DRAFT



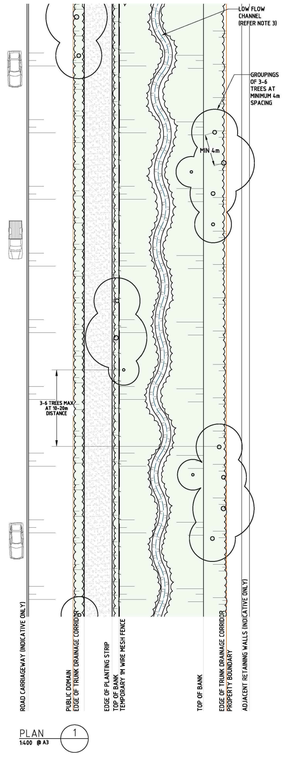
NOTES

1. TOTAL CORRIDOR WIDTH VARIES DEPENDANT ON NRAR SPECIFIED CORRIDOR WIDTH. REFER GUIDELINE FOR CONTROLLED ACTIVITIES ON WATERFONT LAND FOR STANDARD RIPARIAN CORRIDOR WIDTH REQUIREMENTS
2. WIDTH OF BUFFER AT EDGE OF TRUNK DRAINAGE CORRIDOR VARIES TO MATCH TRUNK DRAINAGE CORRIDOR TOTAL WIDTH (REFER NOTE 1). BATTER SLOPE OF BUFFER TO BE CONFIGURED TO CONTAIN 1% AEP EVENT WITHIN TRUNK DRAINAGE CORRIDOR (MAX 1:6)
3. TRUNK DRAINAGE INFRASTRUCTURE TO BE IN ACCORDANCE WITH THE STORMWATER DRAINAGE INFRASTRUCTURE DESIGN GUIDELINE
4. MAINTENANCE ACCESS TRACK TO BE CONSTRUCTED OF CRUSHED SANDSTONE OR ROAD BASE FOR LIGHT VEHICLE ACCESS. ACCESS TRACK TO BE CONVERTED TO SHARED USE PATH SUBJECT TO COUNCIL REQUIREMENTS AND FUNDING BY OTHERS.
5. TRUNK DRAINAGE TYPICAL LONGITUDINAL GRADE TO BE IN ACCORDANCE WITH STORMWATER DRAINAGE INFRASTRUCTURE DESIGN GUIDELINE
6. REFER GRADE CONTROL STANDARD DRAWINGS FOR CHECK DAM AND DROP STRUCTURE DETAILS. TO BE CONFIRMED
7. REFER STORMWATER DRAINAGE INFRASTRUCTURE DESIGN GUIDELINE FOR STORMWATER CONNECTION REQUIREMENTS
8. TREES TO NOT BE INSTALLED WHERE CHANNEL CROSSES SERVICE EASEMENTS

SECTION AA 1 / 100 @ A3 — ALL DIMENSIONS IN MILLIMETERS, UNLESS NOTED OTHERWISE.

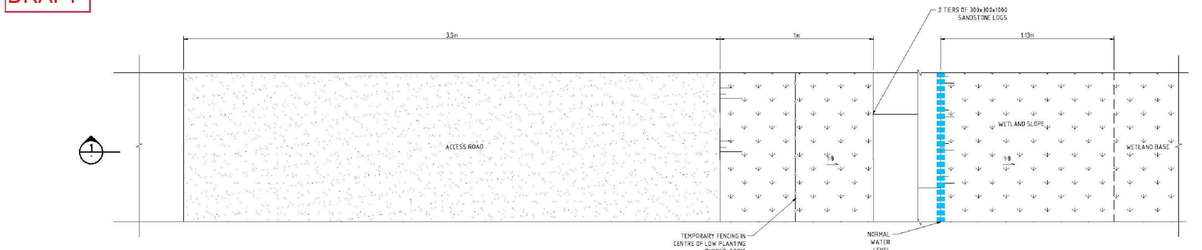


PLAN 1 / 100 @ A3 — ALL DIMENSIONS IN MILLIMETERS, UNLESS NOTED OTHERWISE.



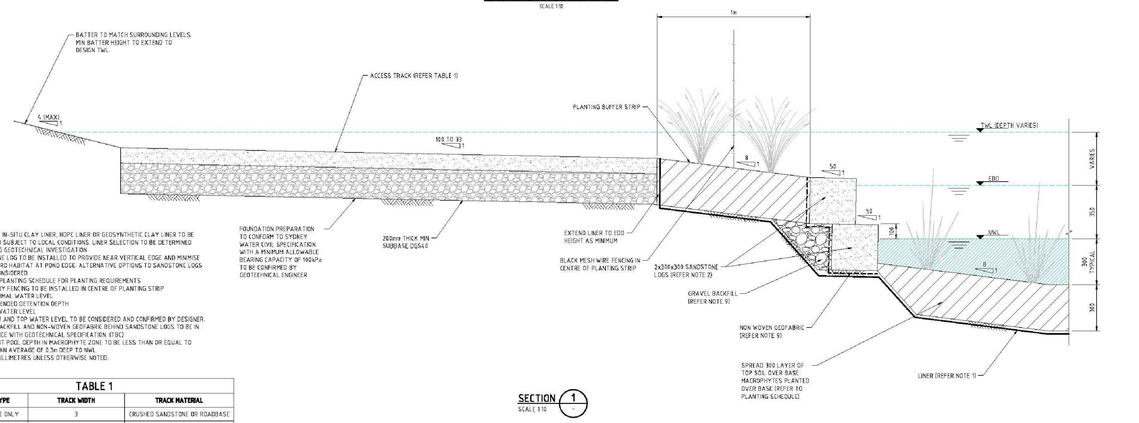
PLAN 1 / 100 @ A3

DRAFT



WETLAND EDGE DETAIL PLAN

SCALE 1:10



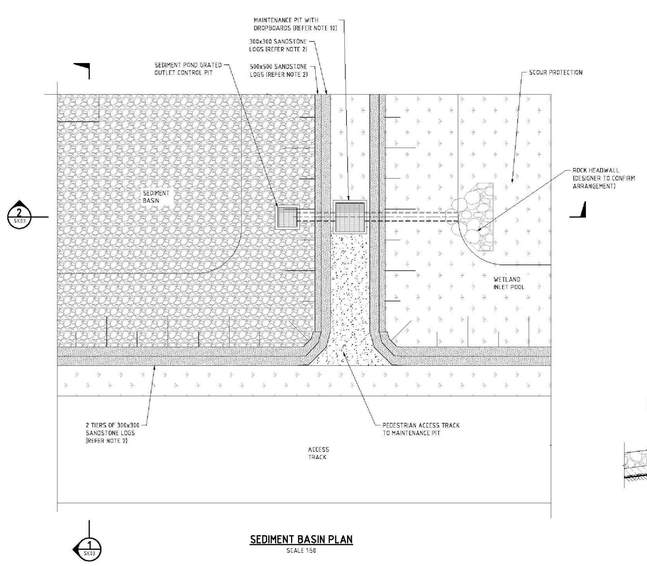
SECTION 1 / SCALE 1:10

NOTES

1. EITHER AN IN-SITU CLAY LINER, HDPE LINER OR GEOSYNTHETIC CLAY LINER TO BE INSTALLED SUBJECT TO LOCAL CONDITIONS. LINER SELECTION TO BE DETERMINED FOLLOWING GEOTECHNICAL INVESTIGATION
2. SANDSTONE LOG TO BE INSTALLED TO PROVIDE NEAR VERTICAL EDGE AND MINIMISE WADING BIRD HABITAT AT POND EDGE. ALTERNATIVE OPTIONS TO SANDSTONE LOGS MAY BE CONSIDERED
3. REFER TO PLANTING SCHEDULE FOR PLANTING REQUIREMENTS
4. TEMPORARY FENCING TO BE INSTALLED IN CENTRE OF PLANTING STRIP
5. NWL = NORMAL WATER LEVEL
6. EDD = EXTENDED DETENTION DEPTH
7. TWL=TOP WATER LEVEL
8. OVERFLOW AND TOP WATER LEVEL TO BE CONSIDERED AND CONFIRMED BY DESIGNER.
9. GRAVEL BACKFILL AND NON-WOVEN GEOFABRIC BEHIND SANDSTONE LOGS TO BE IN ACCORDANCE WITH GEOTECHNICAL SPECIFICATION (TBC)
10. MAINTENANCE PIT TO INCLUDE DROPBOARDS TO ALLOW ISOLATION OF THE WETLAND FROM THE SEDIMENT BASIN FOR PERIODIC MAINTENANCE. DROPBOARDS TO REMAIN IN OPEN POSITION FOR OPERATION.
11. SEDIMENT BASIN ACCESS TRACK IN ACCORDANCE WITH AUSTROADS PUBLICATION UAP-GAN-19 FOR A 9m SERVICE VEHICLE PROVIDE CONCRETE ACCESS TO SEDIMENT BASIN RAMP, REMAINDER OF ACCESS TRACK TO BE CRUSHED ROCK OR ROADBASE.
12. WHERE ONLY PEDESTRIAN ACCESS PROVIDED TO SEDIMENT OUTLET CONTROL PIT AND MAINTENANCE PIT (TO MINIMISE LOSS OF TREATMENT AREA), PITS TO BE LOCATED WITHIN 5m OF VEHICLE ACCESS TRACK AND TRACK TO BE CONSTRUCTED OF CRUSHED SANDSTONE. WHERE VEHICLE ACCESS IS REQUIRED TO FACILITATE ACCESS TO OTHER STRUCTURES) REFER TYPICAL SECTION.
13. SEDIMENT BASIN TO BE 2m DEEP TO NWL.
14. UNITS IN MILLIMETRES UNLESS OTHERWISE NOTED.

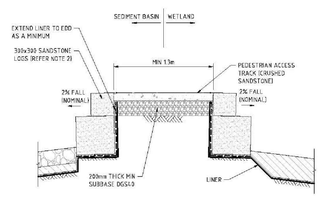
TABLE 1		
ACCESS TYPE	**TRACK WIDTH**	**TRACK MATERIAL**
LIGHT VEHICLE ONLY	3	CRUSHED SANDSTONE OR ROADBASE
HEAVY VEHICLE ONLY	3.5	CRUSHED SANDSTONE OR ROADBASE
SHARED PATH	AS PER COUNCIL REQUIREMENTS	AS PER COUNCIL REQUIREMENTS

DRAFT



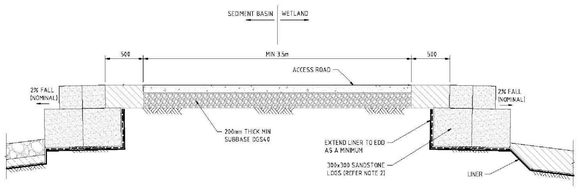
SEDIMENT BASIN PLAN

SCALE 1:50



TYPICAL SEDIMENT BASIN PEDESTRIAN ACCESS TRACK AT WELAND EDGE SECTION

SCALE 1:20



TYPICAL SEDIMENT BASIN VEHICLE ACCESS TRACK AT WELAND EDGE SECTION

SCALE 1:20

NOTES

1. EITHER AN IN-SITU CLAY LINER, HDPE LINER OR GEOSYNTHETIC CLAY LINER TO BE INSTALLED SUBJECT TO LOCAL CONDITIONS. LINER SELECTION TO BE DETERMINED FOLLOWING GEOTECHNICAL INVESTIGATION
2. SANDSTONE LOG TO BE INSTALLED TO PROVIDE NEAR VERTICAL EDGE AND MINIMISE WADING BIRD HABITAT AT POND EDGE. ALTERNATIVE OPTIONS TO SANDSTONE LOGS MAY BE CONSIDERED PROVIDED THEY MEET KEY CRITERIA SET OUT IN REGIONAL STORMWATER INFRASTRUCTURE DESIGN STANDARDS.
3. REFER TO PLANTING SCHEDULE FOR PLANTING REQUIREMENTS
4. TEMPORARY FENCING TO BE INSTALLED IN CENTRE OF PLANTING STRIP
5. NWL = NORMAL WATER LEVEL
6. EDD = EXTENDED DETENTION DEPTH
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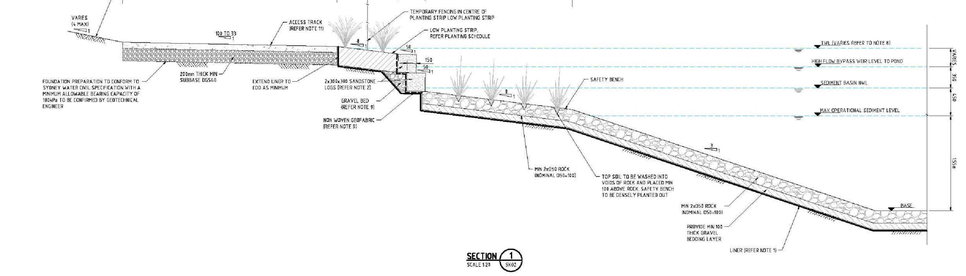
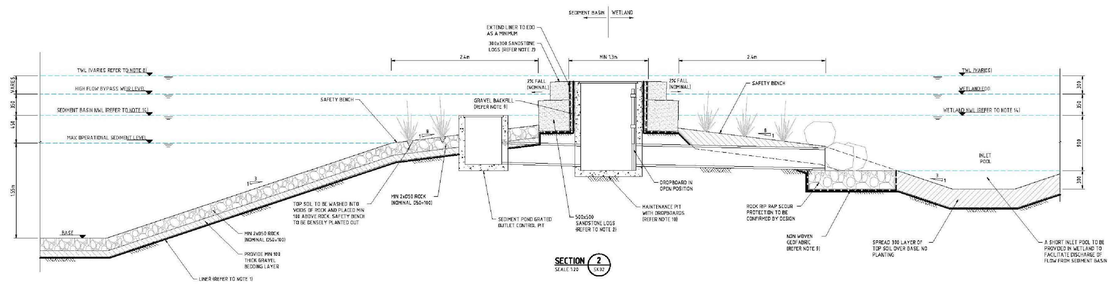
9. GRAVEL BACKFILL AND NON-WOVEN GEOFABRIC BEHIND SANDSTONE LOGS TO BE IN ACCORDANCE WITH GEOTECHNICAL SPECIFICATION (TBC)
10. MAINTENANCE PIT TO INCLUDE DROPBOARDS TO ALLOW ISOLATION OF THE WETLAND FROM THE SEDIMENT BASIN FOR PERIODIC MAINTENANCE. DROPBOARDS TO REMAIN IN OPEN POSITION FOR OPERATION.
11. SEDIMENT BASIN ACCESS TRACK IN ACCORDANCE WITH AUSTROADS PUBLICATION UAP-GAN-19 FOR A 9m SERVICE VEHICLE PROVIDE CONCRETE ACCESS TO SEDIMENT BASIN RAMP, REMAINDER OF ACCESS TRACK TO BE CRUSHED ROCK OR ROADBASE.
12. WHERE ONLY PEDESTRIAN ACCESS PROVIDED TO SEDIMENT OUTLET CONTROL PIT AND MAINTENANCE PIT (TO MINIMISE LOSS OF TREATMENT AREA), PITS TO BE LOCATED WITHIN 5m OF VEHICLE ACCESS TRACK AND TRACK TO BE CONSTRUCTED OF CRUSHED SANDSTONE. WHERE VEHICLE ACCESS IS REQUIRED TO FACILITATE ACCESS TO OTHER STRUCTURES) REFER TYPICAL SECTION ON AR10-RSI-WET-5002
13. SEDIMENT BASIN TO BE 2m DEEP TO NWL.
14. WETLAND NWL = SEDIMENT BASIN NWL.
15. UNITS IN MILLIMETRES UNLESS OTHERWISE NOTED.

DRAFT



SECTION 1 / SCALE 1:50



SECTION 2 / SCALE 1:50

NOTES

1. EITHER AN IN-SITU CLAY LINER, HDPE LINER OR GEOSYNTHETIC CLAY LINER TO BE INSTALLED SUBJECT TO LOCAL CONDITIONS. LINER SELECTION TO BE DETERMINED FOLLOWING GEOTECHNICAL INVESTIGATION
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12. WHERE ONLY PEDESTRIAN ACCESS PROVIDED TO SEDIMENT OUTLET CONTROL PIT AND MAINTENANCE PIT (TO MINIMISE LOSS OF TREATMENT AREA), PITS TO BE LOCATED WITHIN 5m OF VEHICLE ACCESS TRACK AND TRACK TO BE CONSTRUCTED OF CRUSHED SANDSTONE. WHERE VEHICLE ACCESS IS REQUIRED TO FACILITATE ACCESS TO OTHER STRUCTURES) REFER TYPICAL SECTION ON AR10-RSI-WET-5002
13. SEDIMENT BASIN TO BE 2m DEEP TO NWL.
14. WETLAND NWL = SEDIMENT BASIN NWL.
15. UNITS IN MILLIMETRES UNLESS OTHERWISE NOTED.

NOT FOR CONSTRUCTION

The contractor shall check and verify all work on site (including work by others) before commencing the landscape installation. Any discrepancies are to be reported to the Project Manager or Landscape Architect prior to commencing work. Do not scale this drawing. Any required dimensions not shown shall be referred to the Landscape Architect for confirmation.

Legend

Key Plan

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Client
Ingham Property Group

Project
Badgerys Creek IPG
Badgerys Creek, NSW 2555

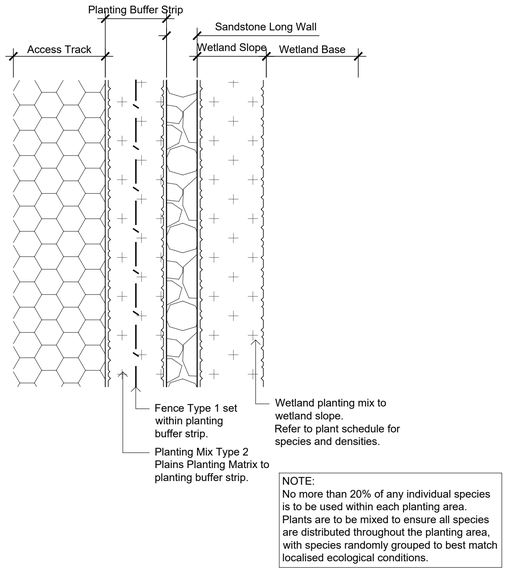
Drawing Name
Landscape Details

PRELIMINARY

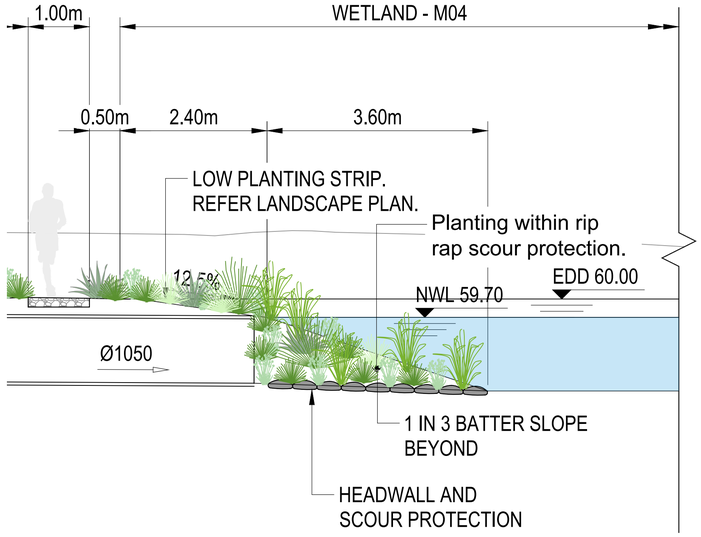
Scale 1:250 @ A1 — 0 1 2 4 6 10m
Job Number SS22-5042
Drawing Number 502
Issue A

Issue	Revision Description	Drawn	Check	Date
A	For Comment	JW	NM	15.11.2023

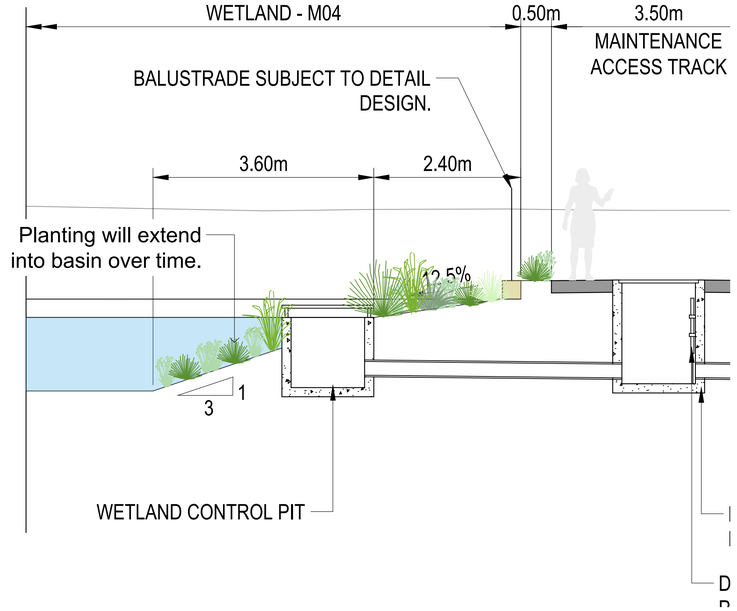
A1

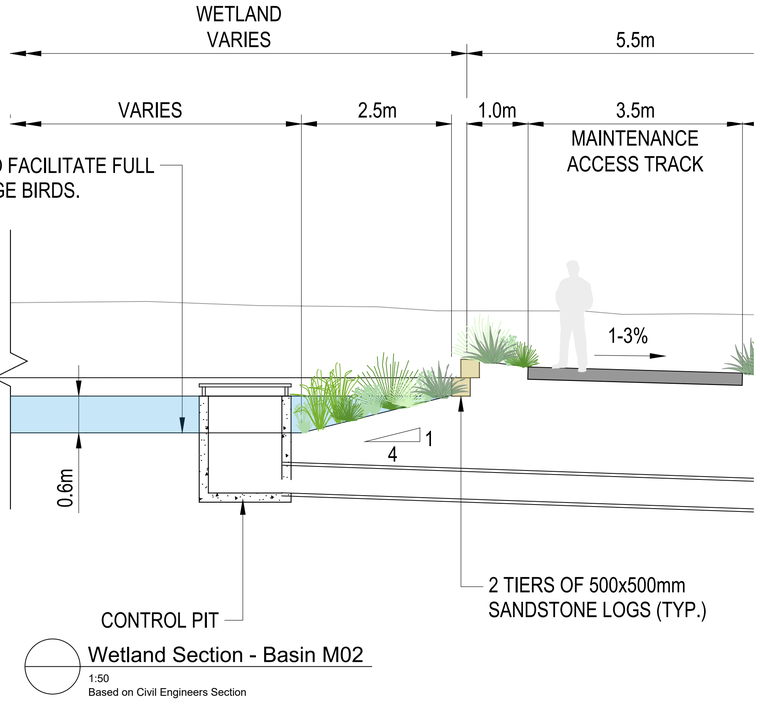


Wetland Basin Planting - Basin Type 1
1:20

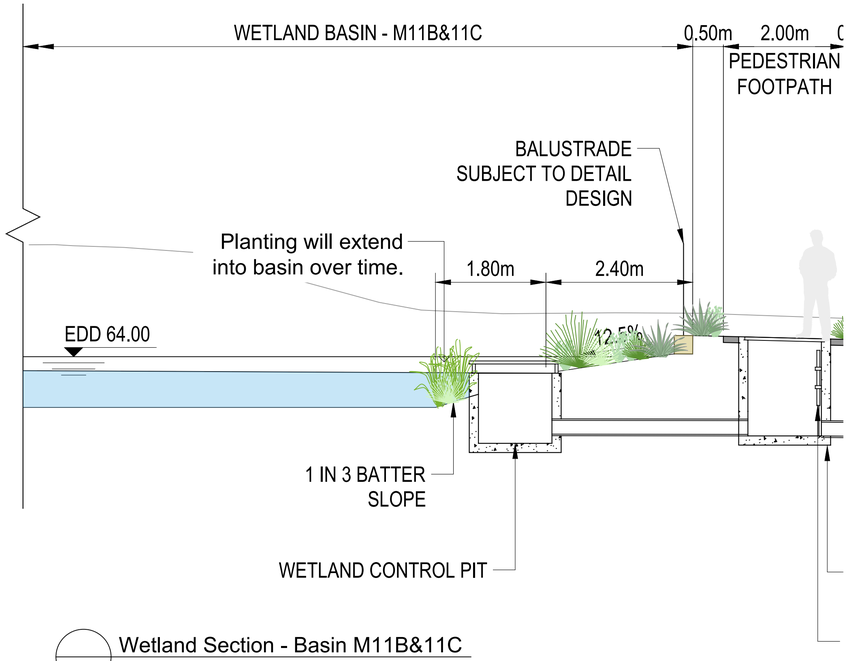


Wetland Section - Basin M04
1:50
Based on Civil Engineers Section





Wetland Section - Basin M02
1:50
Based on Civil Engineers Section



Wetland Section - Basin M11B&11C
1:50
Based on Civil Engineers Section

NOT FOR CONSTRUCTION

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Issue	Revision Description	Drawn	Check	Date
C	Civil Coordination	JW	NM	12.04.2024
B	Civil Coordination	JW	NM	01.03.2024
A	For Comment	JW	NM	15.11.2023

Legend

Key Plan

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Client
Ingham Property Group

Project
Badgerys Creek IPG
Badgerys Creek, NSW 2555

Drawing Name
Landscape Details

PRELIMINARY

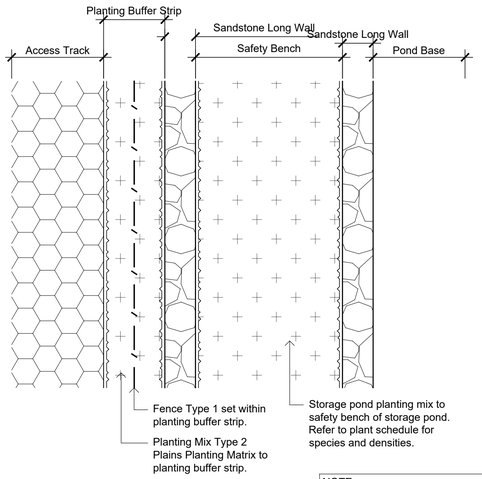
Scale 1:250 @ A1
0 1 2 4 6 10m

Job Number
SS22-5042

Drawing Number
503

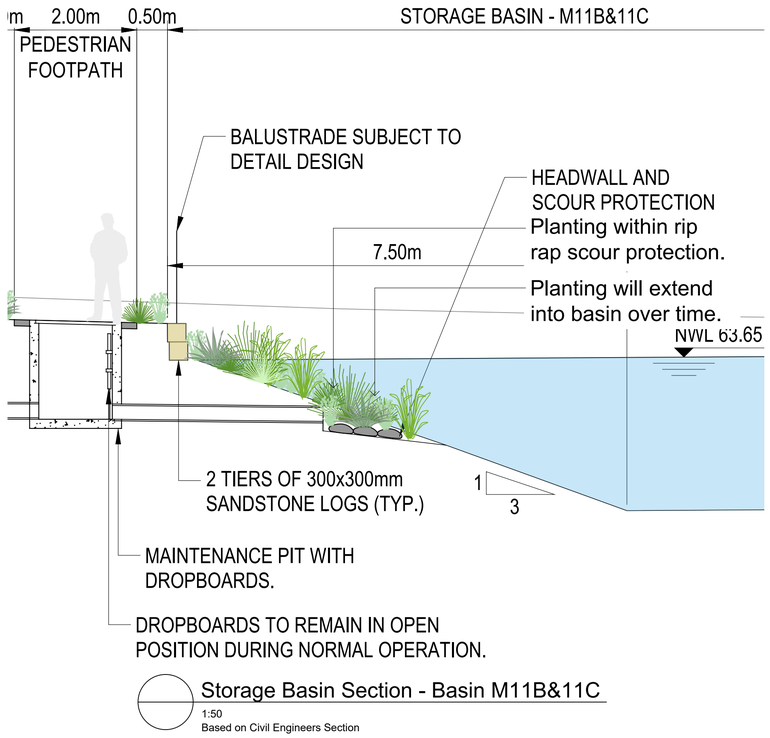
Issue
C

A1

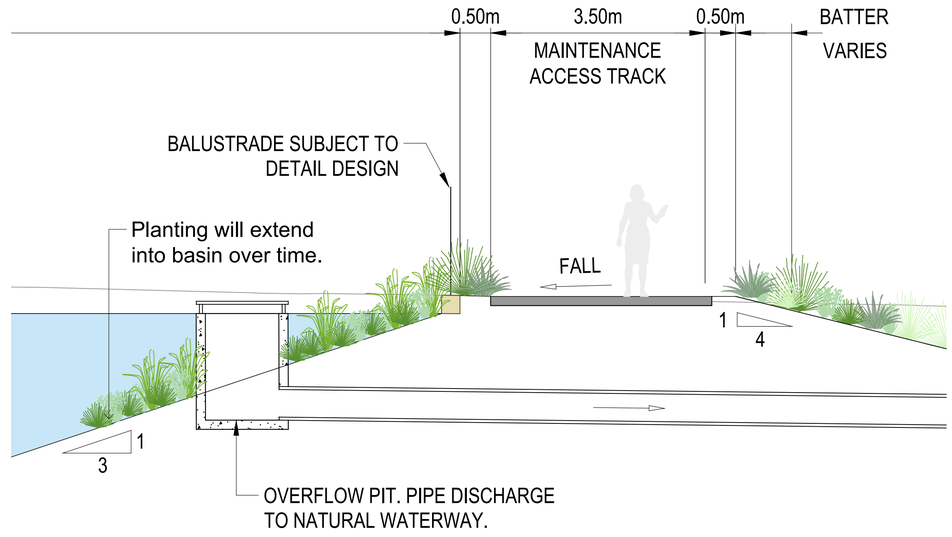


NOTE:
No more than 20% of any individual species is to be used within each planting area.
Plants are to be mixed to ensure all species are distributed throughout the planting area, with species randomly grouped to best match localised ecological conditions.

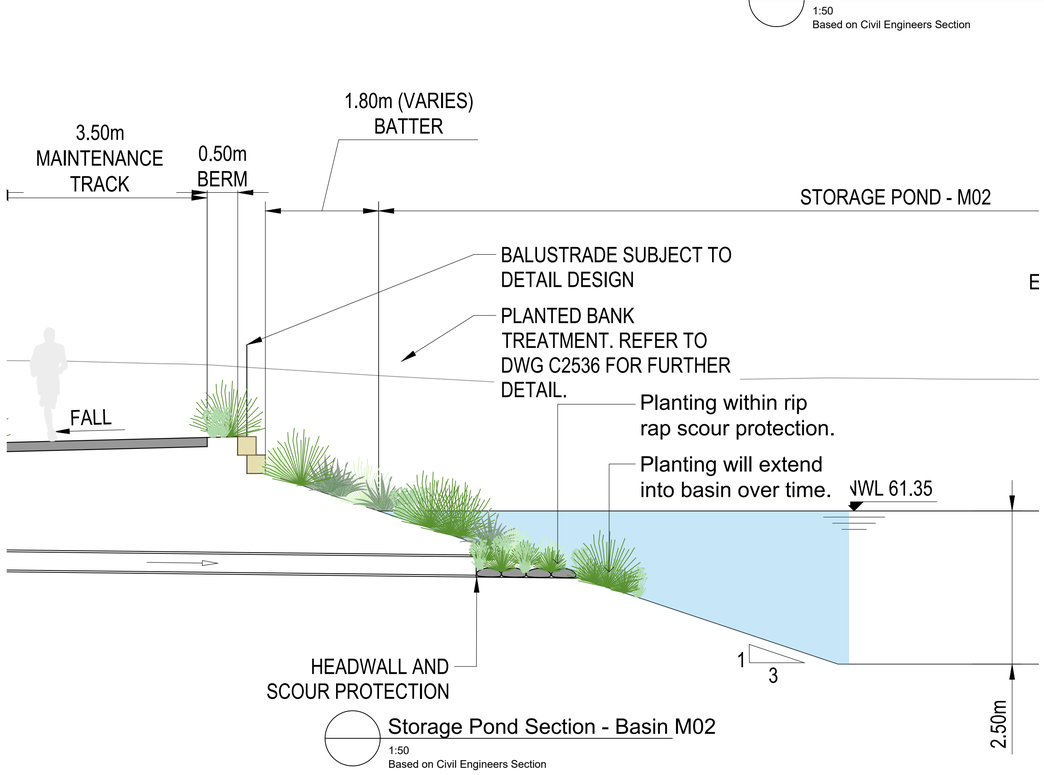
Storage Pond Planting - Basin Type 2
1:20



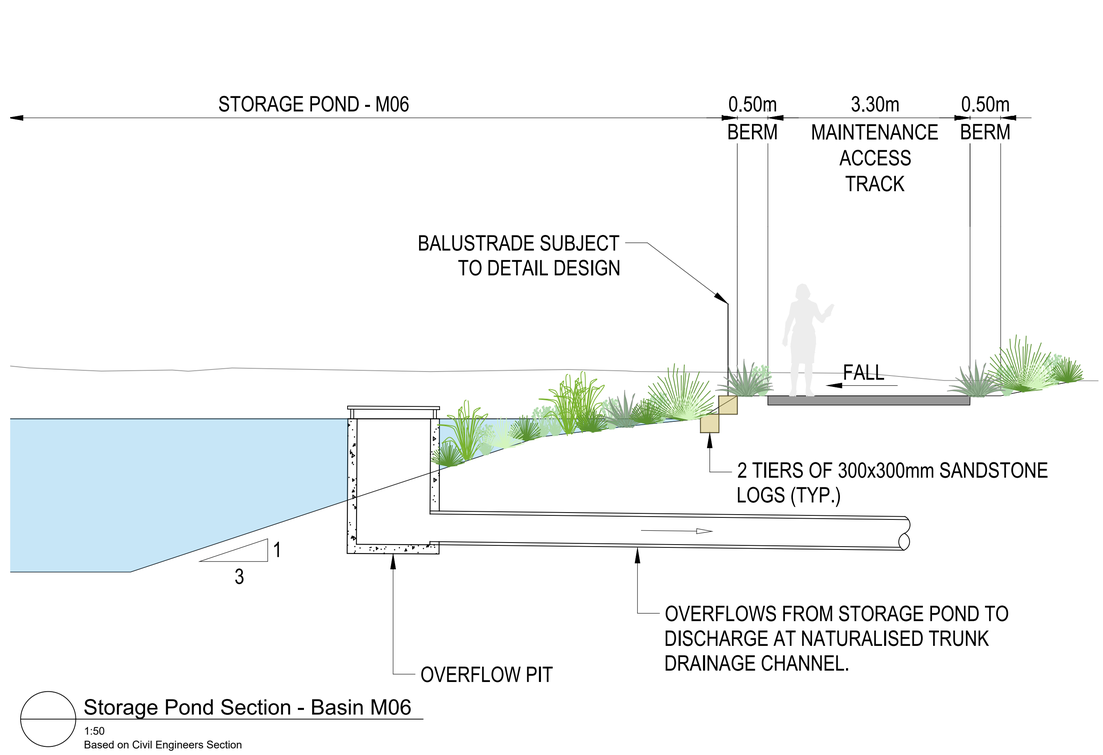
Storage Basin Section - Basin M11B&11C
1:50
Based on Civil Engineers Section



Storage Pond Section - Basin M07
1:50
Based on Civil Engineers Section



Storage Pond Section - Basin M02
1:50
Based on Civil Engineers Section



Storage Pond Section - Basin M06
1:50
Based on Civil Engineers Section

NOT FOR CONSTRUCTION

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Issue	Revision Description	Drawn	Check	Date
B	Response to Comments	LH	NM	19.06.2024
A	Civil Coordination	JW	NM	12.04.2024

Legend

Key Plan

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Client
Ingham Property Group

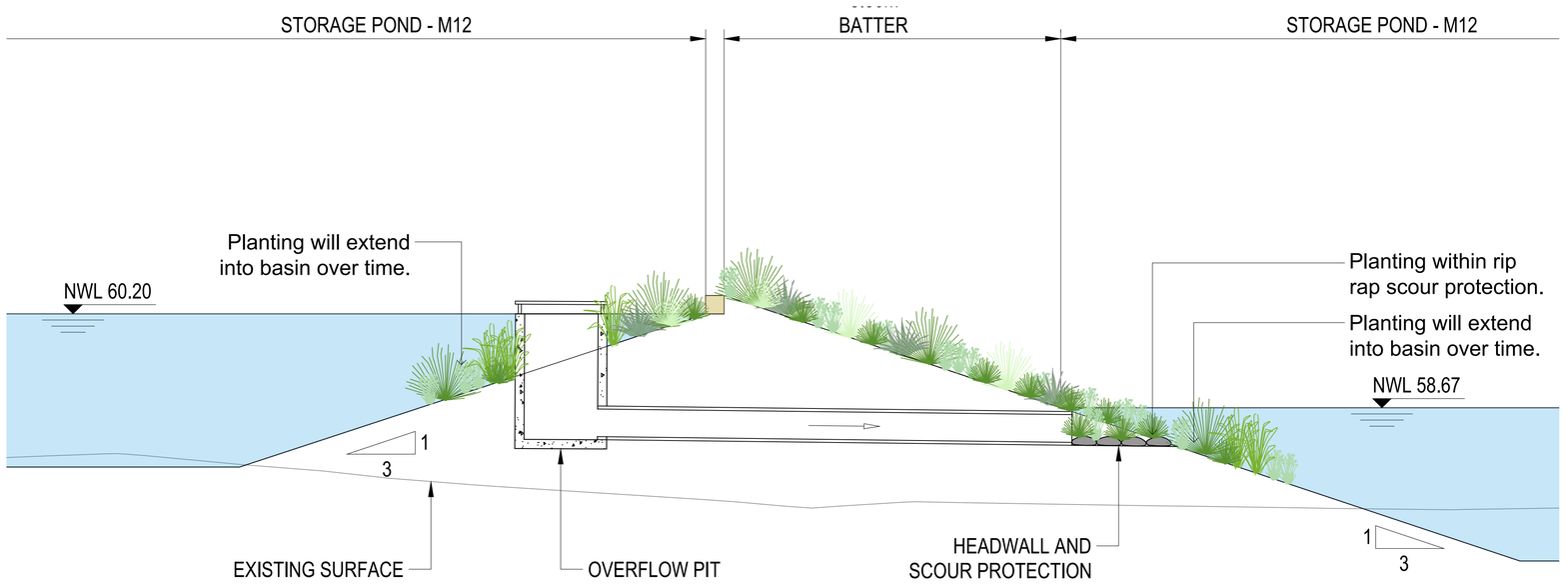
Project
Badgerys Creek IPG
Badgerys Creek, NSW 2555

Drawing Name
Landscape Details

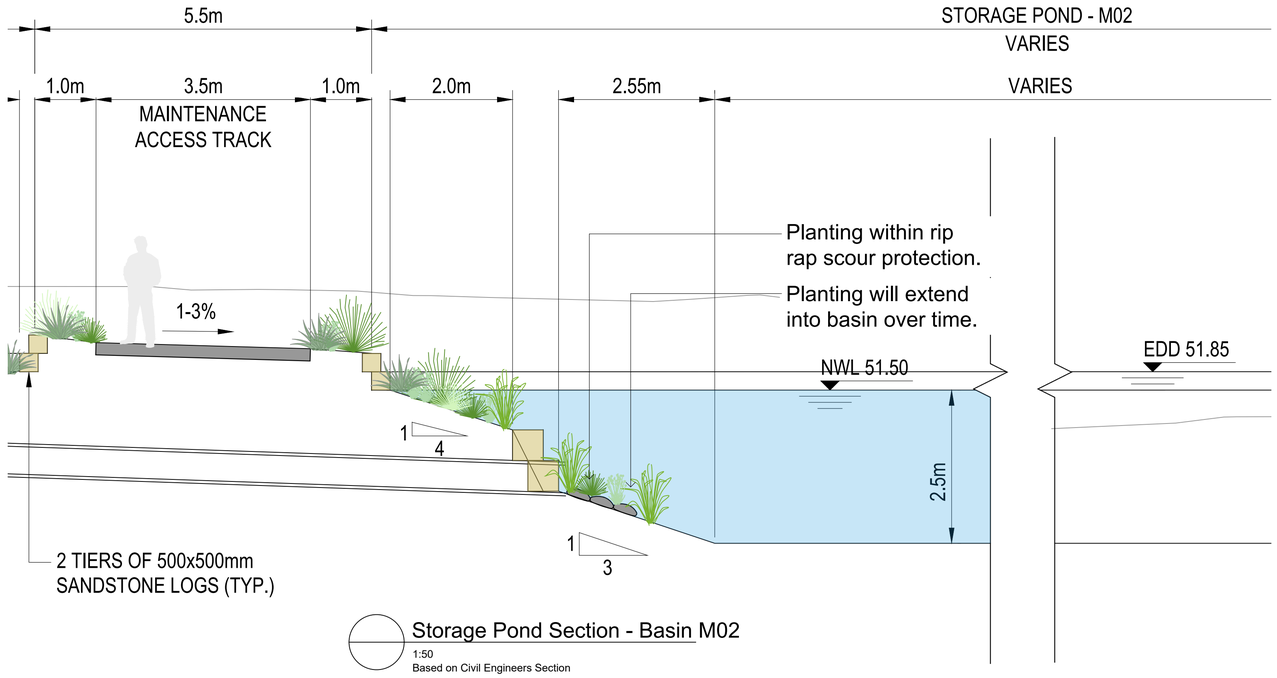
PRELIMINARY

Scale 1:250 @ A1
0 1 2 4 6 10m
Job Number SS22-5042
Drawing Number 504
Issue B

A1



Storage Pond Section - Basin M12
1:50
Based on Civil Engineers Section



Storage Pond Section - Basin M02
1:50
Based on Civil Engineers Section

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Legend

Key Plan

Issue	Revision Description	Drawn	Check	Date
A	Civil Coordination	JW	NM	12.04.2024

A1

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Drawing Name
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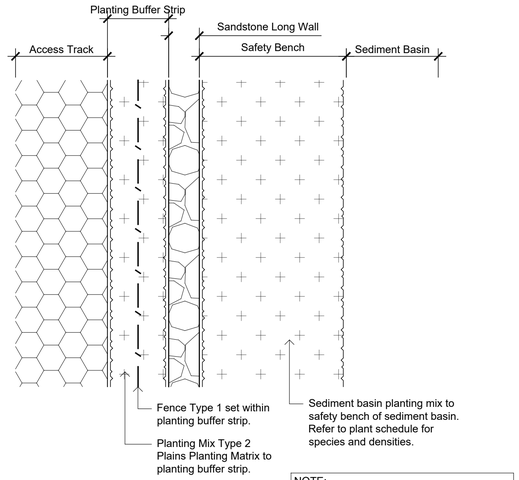
PRELIMINARY

Scale 1:250 @ A1
0 1 2 4 6 10m

Job Number
SS22-5042

Drawing Number
505

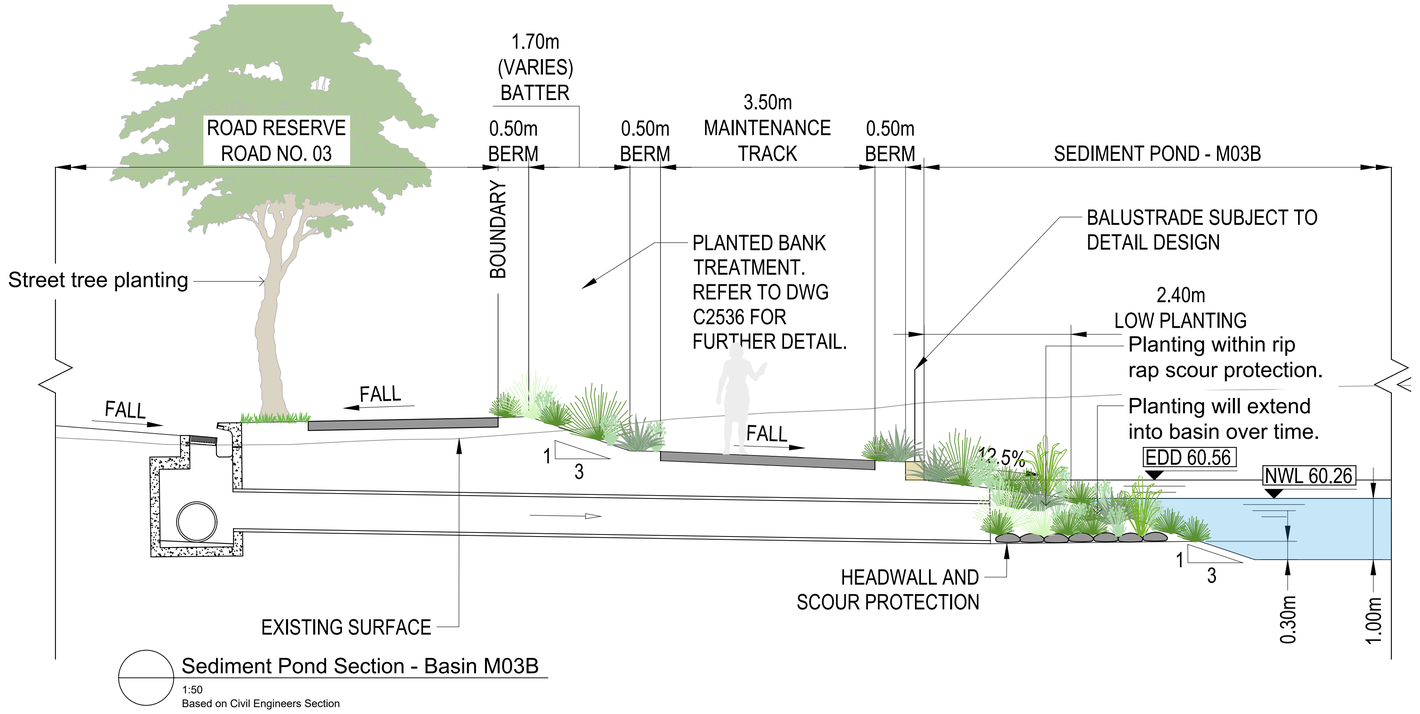
Issue
A



NOTE:
No more than 20% of any individual species is to be used within each planting area. Plants are to be mixed to ensure all species are distributed throughout the planting area, with species randomly grouped to best match localised ecological conditions.

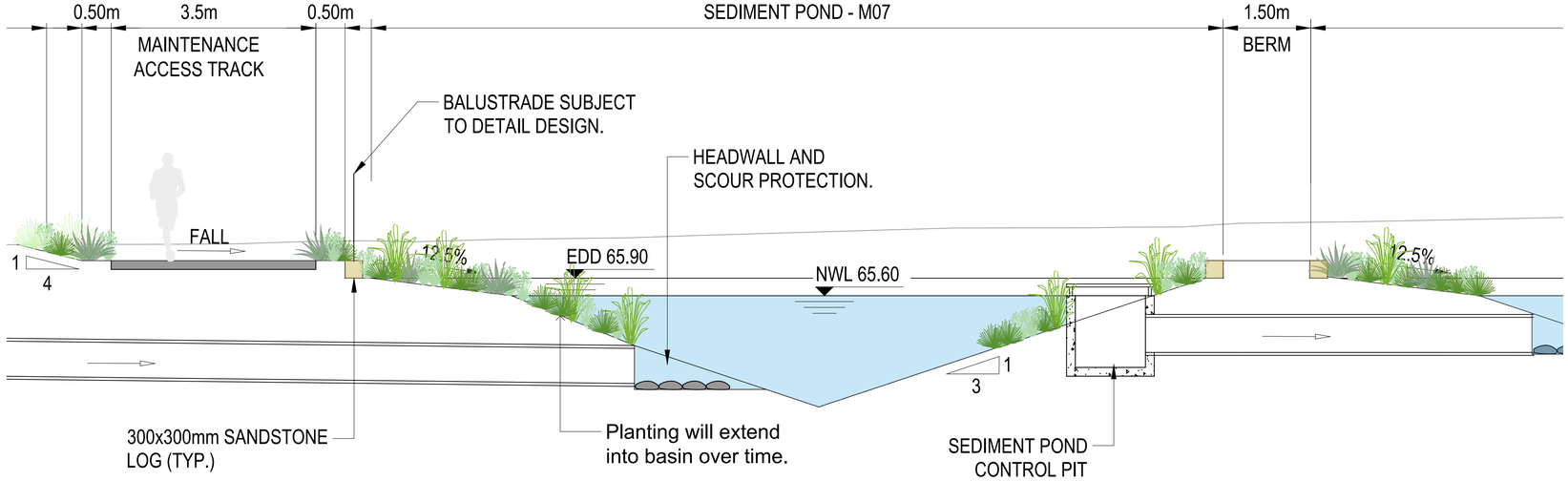
Sediment Basin Planting - Basin Type 3

1:20



Sediment Pond Section - Basin M03B

1:50
Based on Civil Engineers Section



Sediment Pond Section - Basin M07

1:50
Based on Civil Engineers Section

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Issue	Revision Description	Drawn	Check	Date
B	Response to Comments	LH	NM	19.06.2024
A	Civil Coordination	JW	NM	12.04.2024

Legend

Key Plan

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Client
Ingham Property Group

Project
Badgerys Creek IPG
Badgerys Creek, NSW 2555

Drawing Name
Landscape Details

PRELIMINARY

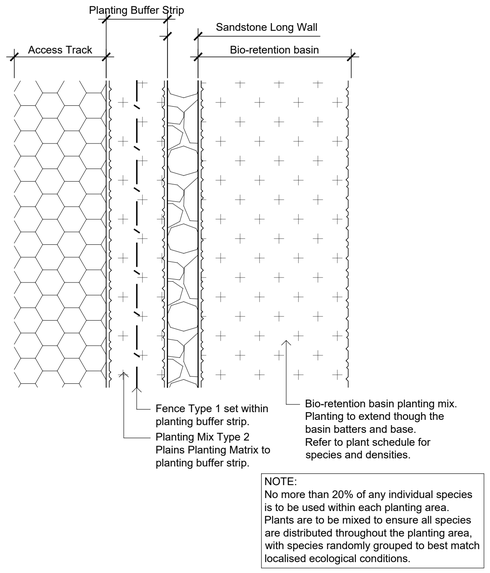
Scale As Shown @ A1

Job Number SS22-5042

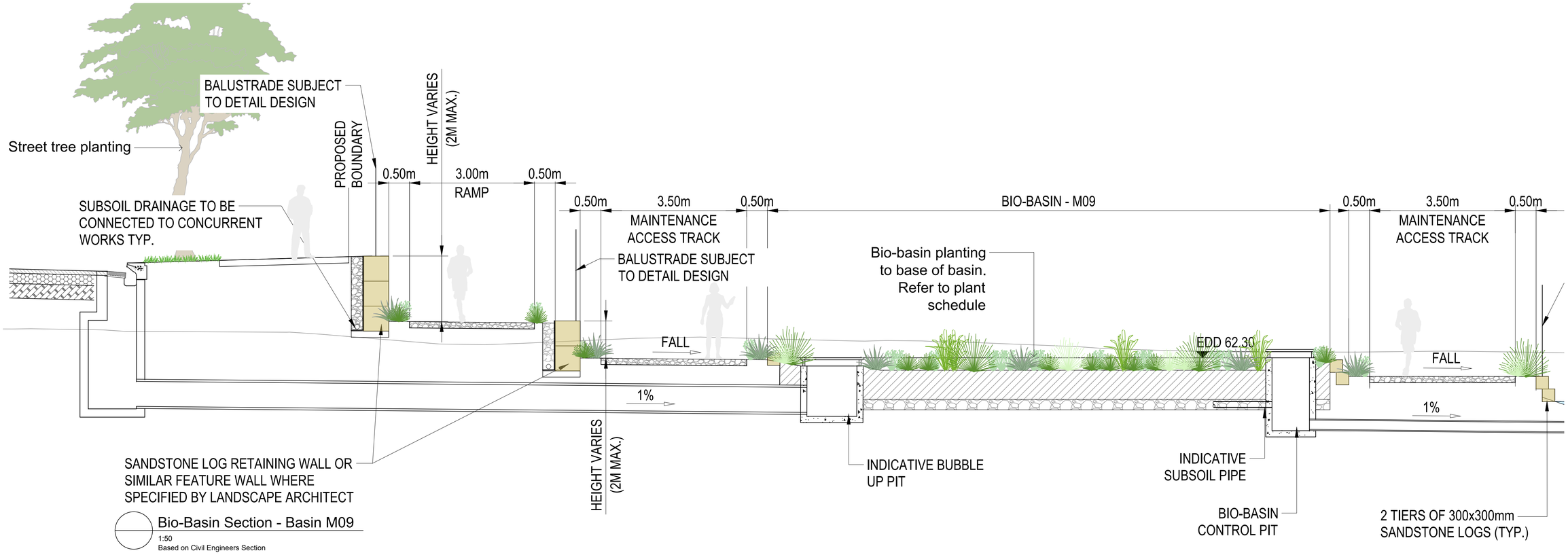
Drawing Number 506

Issue B

A1



Bio-Retention Basin Planting - Basin Type 4
1:20



Bio-Basin Section - Basin M09
1:50
Based on Civil Engineers Section

NOT FOR CONSTRUCTION

The contractor shall check and verify all work on site (including work by others) before commencing the landscape installation. Any discrepancies are to be reported to the Project Manager or Landscape Architect prior to commencing work. Do not scale this drawing. Any required dimensions not shown shall be referred to the Landscape Architect for confirmation.

Legend

Key Plan

Issue	Revision Description	Drawn	Check	Date
A	Civil Coordination	JW	NM	12.04.2024

A1

SITE IMAGE
Landscape Architects
Level 1, 3-5 Baptist Street
Redfern NSW 2016
Australia
Tel: (61 2) 8332 5600
Fax: (61 2) 9698 2877
www.siteimage.com.au

Client
Ingham Property Group

Project
Badgerys Creek IPG
Badgerys Creek, NSW 2555

Drawing Name
Landscape Details

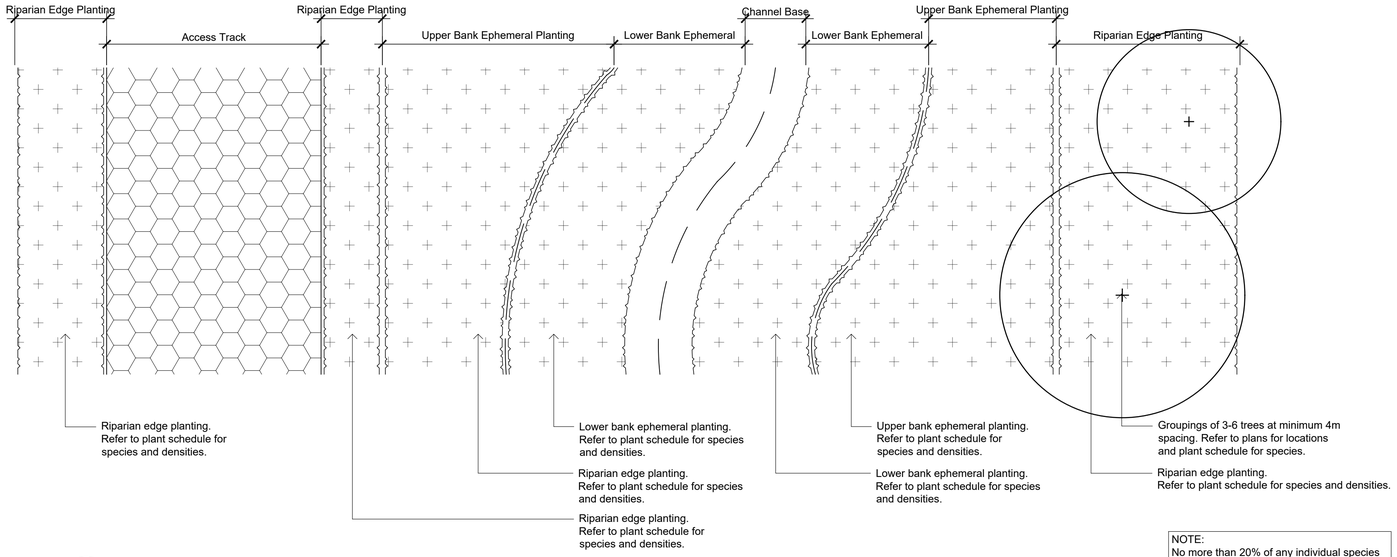
PRELIMINARY

Scale 1:250 @ A1
0 1 2 4 6 10m

Job Number
SS22-5042

Drawing Number
507

Issue
A



Trunk Drainage Planting - Basin Type 5

1:50

NOTE:
No more than 20% of any individual species is to be used within each planting area. Plants are to be mixed to ensure all species are distributed throughout the planting area, with species randomly grouped to best match localised ecological conditions.

NOT FOR CONSTRUCTION

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Legend

Key Plan

Issue	Revision Description	Drawn	Check	Date
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Drawing Number
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Issue
A

URBIS