

ARCADIA

Road 01 Data Centre SSDA Landscape Report

Prepared for Stockland

Introduction

This Landscape Concept Report has been prepared by Arcadia on behalf of Stockland to accompany a State Significant Development Application (SSDA) for a data centre development.

The site is located at 1-5 Khartoum Road, Macquarie Park, within the City of Ryde Local Government Area (LGA). The area subject of the data centre development is 8,096sqm. The site is legally described as Part Lot 2 Deposited Plan 1043041 and is contained within the broader 'MPark' landholding as shown in Figure 1.

The project comprises the construction of a data centre development including the following key components:

- Site preparation works including tree removal and earthworks.
- Construction and operation of a 10-storey data centre development, with a maximum height of 72.8 metres and a combined total gross floor area (GFA) of approximately 13,307sqm including:
 - Lobby and ancillary spaces: 5,857sqm
 - Offices: 878sqm
 - Four storeys of technical data floor space accommodating 8 data halls: 6,572sqm
- Vehicle access via Road 22 (Murrell Street) and Future Road 1 with 19 parking spaces to be located within the building footprint.
- Construction of part Road 1 and part of Road 23 as contained within the subject site.
- Landscaping and associated public domain works.
- Business identification signage zones.
- 19 diesel generators for back up power.
- Extension and augmentation of physical infrastructure and utilities including extension of water link main from Road 22 (Murrell Street) to Waterloo Road and secondary water connections.



Figure 1 Aerial View of Site.
Source: Google Maps

The Site

The site is located at 1-5 Khartoum Road, Macquarie Park, within the City of Ryde Local Government Area (LGA), approximately 12km north-west of the Sydney CBD and proximate to the commercial centres of Chatswood and Norwest.

The area subject of the data centre development is 8,096sqm (legally described as Part Lot 2 DP 1043041) and is contained within the broader 'MPark' landholding – see Figure 1.

The site is within convenient walking distance (800m) of both Macquarie University and Macquarie Park Metro Stations, which provide high-frequency rail connections to Chatswood, Sydney CBD and the Norwest Business Park. It also benefits from access to high frequency bus services along Waterloo Road, Khartoum Road and Talavera Road and is well connected to the regional road network via the M2 Motorway.

The key features of the site which have the potential to impact or be impacted by the proposed development are summarised in Table 1.

FEATURE	DESCRIPTION
Street Address	1-5 Khartoum Road, Macquarie Park
Legal Description	Part Lot 2 DP 1043041
Land Configuration	The site has an area of 8,096sqm and slopes towards Talavera Road.
Land Ownership	The land is owned by Stockland.
Existing Development	The site is currently occupied by an existing warehouse building and adjacent to an existing double storey concrete carparking structure.
Local Context	The site is surrounded by a range of office/warehouse building forms, which are predominantly low to medium rise with large areas of at-grade parking, consistent with Macquarie Park's traditional campus-style function and character.
Regional Context	The site is located within Macquarie Park, which with approximately 894,000 sqm of commercial floor space and approximately 140,000sqm of retail floor space, is the fourth largest employment centre in Greater Sydney by number of employees and the largest non-CBD office market in Australia. It is viewed as an innovative research, education, medical and technology employment centre. Macquarie Park is home to Macquarie University, Macquarie University Hospital, Macquarie University Incubator and more than 180 large international corporations (including Optus, Foxtel, Sonic Healthcare, Oracle, Schneider Electric and Astra Zeneca), together with over 200 small businesses. The area is well advanced in its transition from a campus-style industrial and business park into a denser, mixed-use urban centre with improved connectivity. This transition has been occurring for decades, led by events such as Macquarie University's expansion and the opening of the M2 motorway, together with more recent factors such as investment in rail/metro services and the NSW Government's 'Priority Precinct' program.
Site Access	Road 22 (Murrell Street) and Future Road 1 will provide access to the site, which was constructed as part of SSD-10467.

Table 1 Summary of Site Key Features and Context

Detailed Project Description

DESCRIPTOR	PROJECT DETAILS
Project Area	The data centre development relates to the central part of Lot 2 DP 1043041 and comprises an area of approximately 8,096sqm.
Proposed Use	Data centre with ancillary office space.
Project Description	/ Site preparation works including tree removal and earthworks. / Construction and operation of 10-storey data centre development, with a maximum height of 72.8 metres and a combined total gross floor area (GFA) of approximately 13,307sqm including: – Lobby and ancillary spaces: 5,857sqm – Offices: 878sqm – Four storeys of technical data floor space accommodating 8 data houses: 6,572sqm / Vehicle access via Road 22 (Murrell Street) and Future Road 1 with 19 parking spaces to be located within the building footprint. / Construction of part Road 1 and part of Road 23 as contained within the subject site. / Landscaping and associated public domain works. / Business identification signage zones. / 19 diesel generators for back up power. / Extension and augmentation of physical infrastructure and utilities including extension of water link main from Road 22 (Murrell Street) to Waterloo Road and secondary water connections.
Gross Floor Area	13,307sqm
Building Height	72.8 metres over 10 storeys
Floor Space Ratio	1.64:1

Table 2 Project Description

DESCRIPTOR	PROJECT DETAILS
Data Houses	8 data halls
Deep Soil Area	11.48%
Car parking	19 car spaces including 1 DDA spaces
Motorbike Spaces	3 spaces
Bicycle Spaces	10 spaces
Utilities	Provision of required utilities including: / 19 x diesel generators (3MW/each) 18 x diesel generators (3MW/each) + 1 diesel generators (1MW) / 6 x above-ground diesel storage tanks (100kL/each) / 6 x above-ground water tanks for industrial water (450kL/each) / 1 x above-ground water tank for fire water (400kL) / Fully redundant 33kV switching station.
Power Consumption	34.3 MW
Operations and Management	The facility will be operated on a 24-hour, 7 day a week basis.
Existing Services and Infrastructure	The site is fully serviced; however, existing services and infrastructure will be extended, adapted and augmented to meet the demands of the project.
Job Numbers	/ Construction: 250 / Operational: 50

Response to SEARS

ITEM	DESCRIPTION OF REQUIREMENT	SECTION REFERENCE (THIS REPORT)
Trees and Landscaping	Provide a detailed site-wide landscape plan, that: / identifies the number and location of trees to be removed and retained, and how opportunities to retain significant trees have been explored and/or informs the plan.	Planting - Section 5 and Landscape Design - Section 4
	/ details the proposed site planting, including location, number and species of plantings, heights of trees at maturity and proposed canopy coverage (as a percentage of the site area). / demonstrates how the proposed development would: ◦ contribute to long term landscape setting in respect of the site and streetscape ◦ mitigate the urban heat island effect and ensure appropriate comfort levels on-site. ◦ contribute to the objective of increased urban tree canopy cover. ◦ maximise opportunities for green infrastructure, consistent with Greener Places and having regard to any bush fire risk.	Site Requirements - Section 2 and Landscape Design - Section 4
Urban Heat Island Effect	The EIS must evaluate the impact of heat rejection on habitable rooms and communal open spaces, including those of neighboring properties	Urban Heat Island Effect - Section 4, page 32

Table 3 Response to SEARs

Response to SDRP

ITEM	DESCRIPTION OF COMMENT	SECTION REFERENCE (THIS REPORT)
1. Connection with Country	/ Integrate precinct wide Connecting with Country approach into the Data Centre site.	Celebrate Country & Enrich Culture - Section 3, page 21
	/ Develop a more meaningful response to sites unique topography, relationship to place and role in providing healthy places for human and non human kin.	Deep Soil - Section 4, page 30
	/ Engage with local community/advisors and develop opportunities to heal Country through landscape, management of water, deep soil, tree canopy and supporting ecologies.	Tree canopy - Section 5, page 38 Planting Palette - Section 5, page 34-36
2. Site Strategy and Landscape	Activation: / Demonstrate how future site through link will be safe and inviting.	Landscape Design - Section 4, page 26 & page 29
3. Site Strategy and Landscape	Security Strategy: / Security measures result in inadequate landscape and minimal canopy. / Fences provide a potentially unsafe environment for pedestrians. More focus on innovation.	Fence Strategy - Section 4, page 31
4. Site Strategy and Landscape	Vegetation /Landscape Design: Intent is to remove all vegetation is not supported.	
	/ The tree canopy within the site after street dedication appears below minimum requirements of the MPDG. Maximise tree retention. Provide arborist assessment of significant trees and drawings that identifies trees to be retained and removed and advice on tree protection.	Deep Soil - Section 4, page 30
	/ Adhere to minimum 25% canopy cover of the MPDG. Demonstrate maximised biodiversity shade and amenity	Tree Canopy - Section 5, page 38
	/ Pursue additional opportunities for street planting blisters verges to maximise on Road 01 and 23.	Planting Palette - Section 5, page 34-36
	/ Increase Deep Soil to meet 20%. Pursue shifting services, altering building envelope, reducing hard stand. / Prioritise use of native species.	

Table 4 Response to SDRP

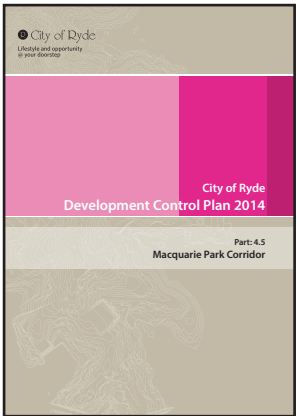
Background Documents

Government Architect, Local Government and Site Specific

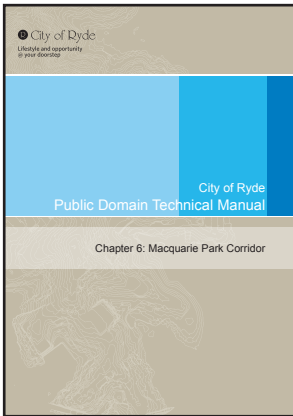
The provision of the landscape design is to be considered within the City of Ryde’s overall planning framework.



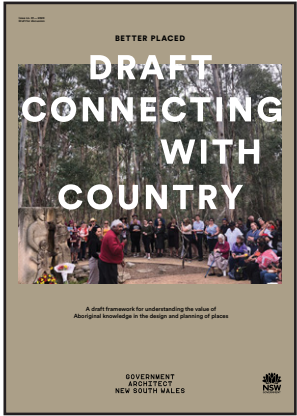
Macquarie Park Design Guide (2024)



City of Ryde DCP (2014)



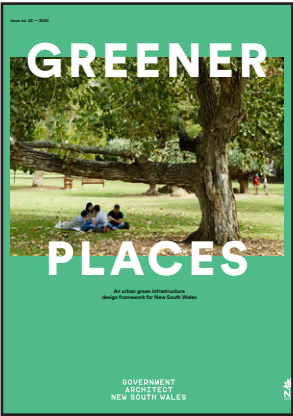
City of Ryde Public Domain Technical Manual Macquarie Park Corridor



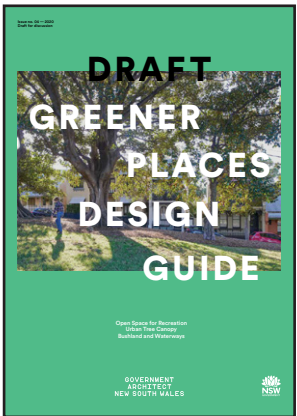
Draft Connecting with Country (2020)



BetterPlaced (2017)



Greener Places (2020)



Draft Greener Places Design Guide (2020)



Good Urban Design (2019)



Implementing Good Design (2018)



Evaluating Good Design (2018)



ONE SITE

Site History

Ancient Geological Context

The site is situated on the Hornsby plateau, a sedimentary sandstone plateau formed following the continental uplift of the late Triassic period. Millions of years of erosion from ancient Jurassic rivers formed the jagged, ventricular landscape characteristic of Sydney’s ridge-lines, before draining into the vast and deep canyons we now call Sydney Harbour. Following the last ice age (approximately 12,000 years ago), glacial melt caused the sea levels to rise, flooding drainage canyons and forming Sydney Harbour and its tributary river system - including as Lane Cove river.

Dreaming stories tell of the migration of our first people following the last ice age, from the flooding canyons to higher ground, where clan groups lived and cared for Country for thousands of years.

Wallumedegal

The Wallumedegal clan of the Dharug Nation are the traditional custodians of the land where Macquarie Park now stands.

The totem for the Wallumedegal is the Snapper, ‘Wallumai’ in Dharug language. The clan likely named themselves after the Wallumai, which was once plentiful around the area and considered a great delicacy.

12,000BP - 1788

At the time of European arrival, the Wallumedegal clan of the Dharug Nation occupied the lands around Ryde and Lane Cove River, including the land upon which Macquarie Park now stands. The Wallumedegal clans were great trackers, fisher-people and hunters, and created a system of murus (pathways) along the ridge-lines, connecting to other clan groups and beyond. During the early years of colonisation, many of the clans that made up the Dharug Nation, including the Wallumedegal were decimated by small pox and became unable to maintain control of their ancestral lands.

Settlement - Present

Located North of the centre of the City of Ryde LGA, Macquarie Park once formed the greater North Ryde area. In 1792, much of the areas were granted to British service-men and was renamed the ‘Field of Mars’, owing to the Roman God of War. During the early years of the 1800s, further land grants were awarded to emancipated convicts as the colony expanded in search of raw materials and fertile farming lands.

Macquarie Park’s historical development is characterised by several key milestones. The establishment of Macquarie University in 1964 laid the groundwork for the area’s transformation into a thriving educational and research hub. Subsequently, Macquarie Park evolved into a major business and technology centre, attracting multinational corporations and fostering innovation. The late 1990s saw the enhancement of accessibility with the construction of the M2 motorway, further contributing to its appeal for businesses and residents. The surge in residential development, including housing estates and apartment complexes, addressed the growing demand for housing near educational and employment opportunities. The area also witnessed the creation of retail and recreational facilities to meet the needs of its expanding population. In recent years, a focus on urban renewal and master planning has underscored efforts to develop a more integrated and sustainable community, emphasizing public spaces, green initiatives, and thoughtful urban design. As the precinct continues to evolve, innovation and productivity remain central to its identity, with data centres increasingly forming part of the mixed-use urban centre, supporting the area’s role as a key economic and employment hub.



Image Source: Arcadia Landscape Architecture



Image Source: visitsydneyaustralia.com.au



Image Source: commons.wikimedia.org



Image Source: ryde.nsw.gov.au



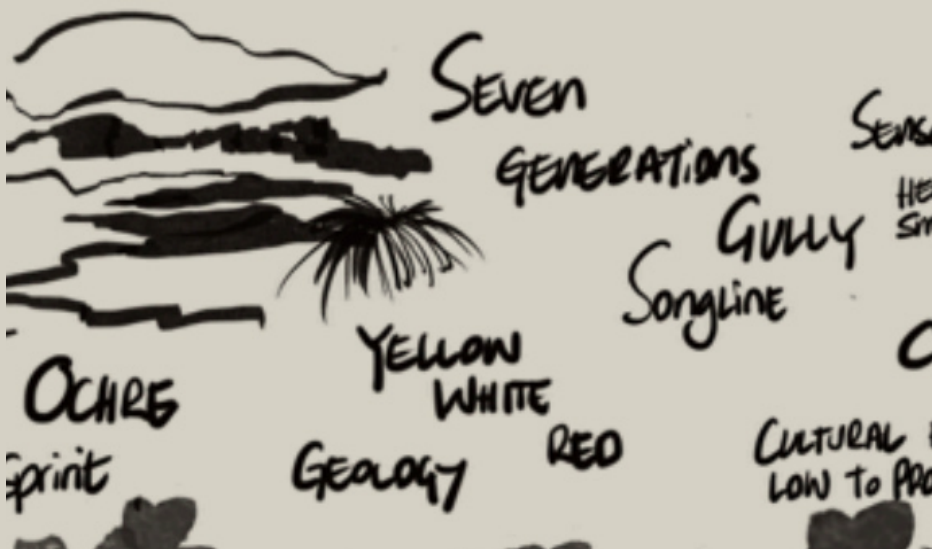
Image Source: ryde.nsw.gov.au

Connection to Country Darug People

The Road 01 Data Centre development has been shaped by a deep engagement with Country, as outlined in the Walk on Country and Connection with Country reports prepared by Stockland over the many years of engagement since the creation of the First Nations Working Group (FNWG). These learnings and the collective knowledge and guidance of Traditional Custodians, ensure that the site’s cultural significance, materiality, and connection to Country are meaningfully embedded in the development’s design.

“...re-establish the creeks and rivers that were once the dreaming lines Darug people used to gather food, walking or by canoe and help understand the importance of connection to Country.”

- MPark Designing with Country Workshop Outcomes 2021 for Stage 2



“Human and non-human affinity for nature and opportunity to reinstate and reconnect natural systems”



Image Source: Illustrations by artist Bernadette (B) Hardy

At the time of the arrival of Europeans at Sydney Cove in January 1788, the Wallumedegal people were the traditional owners of the area which they called Wallumatta. That clan name was told to Captain Arthur Phillip, first governor of the convict colony of New South Wales, by Woollarawarre Bennelong who came from the adjoining Wangal clan on the south side of the Parramatta river.

The clan name Wallumedegal was derived from wallumai the black snapper fish (*Pagrus auratus*), combined with matta, a word used to describe a place, but more often a water place, as with Burramattagal (Parramatta) and Cabrogal (Cabramatta). The Wallumedegal then would be the ‘snapper people’ and the fish itself their clan totem.

At this time the Wallumedegal were living as fisher-hunter-gatherers in a rich environment of river flats, mangrove swamps and creeks - fishing with pronged spears and handlines, gathering shellfish, hunting birds and small game and collecting a variety of edible bushfood plants and feasting on oysters. Although they burned and maintained one metre wide pathways through the bush, the waters of the harbour, its creeks, coastal estuaries and lagoons and the artery of the Parramatta River were crowded with men and women fishing and coming and going in their bark canoes.

Turrumburra was an important part of people’s lives, with shelters, rock art, grinding grooves and shell middens clustered around the waterway still evident.

*Wallumedegal an Aboriginal History of Ryde, Ryde Council, K Smith, 2005

Context

Macquarie Park, situated in the northern part of Sydney, NSW, is a bustling suburb known for its dynamic blend of commercial and residential spaces. The area is well advanced in its transition from a campus-style industrial and business park into a denser, mixed-use urban centre with improved connectivity. This transition has been occurring for decades, led by events such as Macquarie University’s expansion and the opening of the M2 motorway, together with more recent factors such as investment in rail/ metro services, the NSW Government’s ‘Priority Precinct’ program and changing of the Housing SEPP allowing for further residential dwelling in the area. Macquarie Park has continued to evolve as a key innovation precinct, home to a number of data centres. With excellent public transport links and refreshing green spaces, Macquarie Park stands as a vibrant growing and well-connected community. The project site is surrounded by future projects which illustrates the growth in Macquarie Park.



View over Macquarie Park towards Sydney CBD



Lane Cove National Park River

KEY

BUS ROUTE

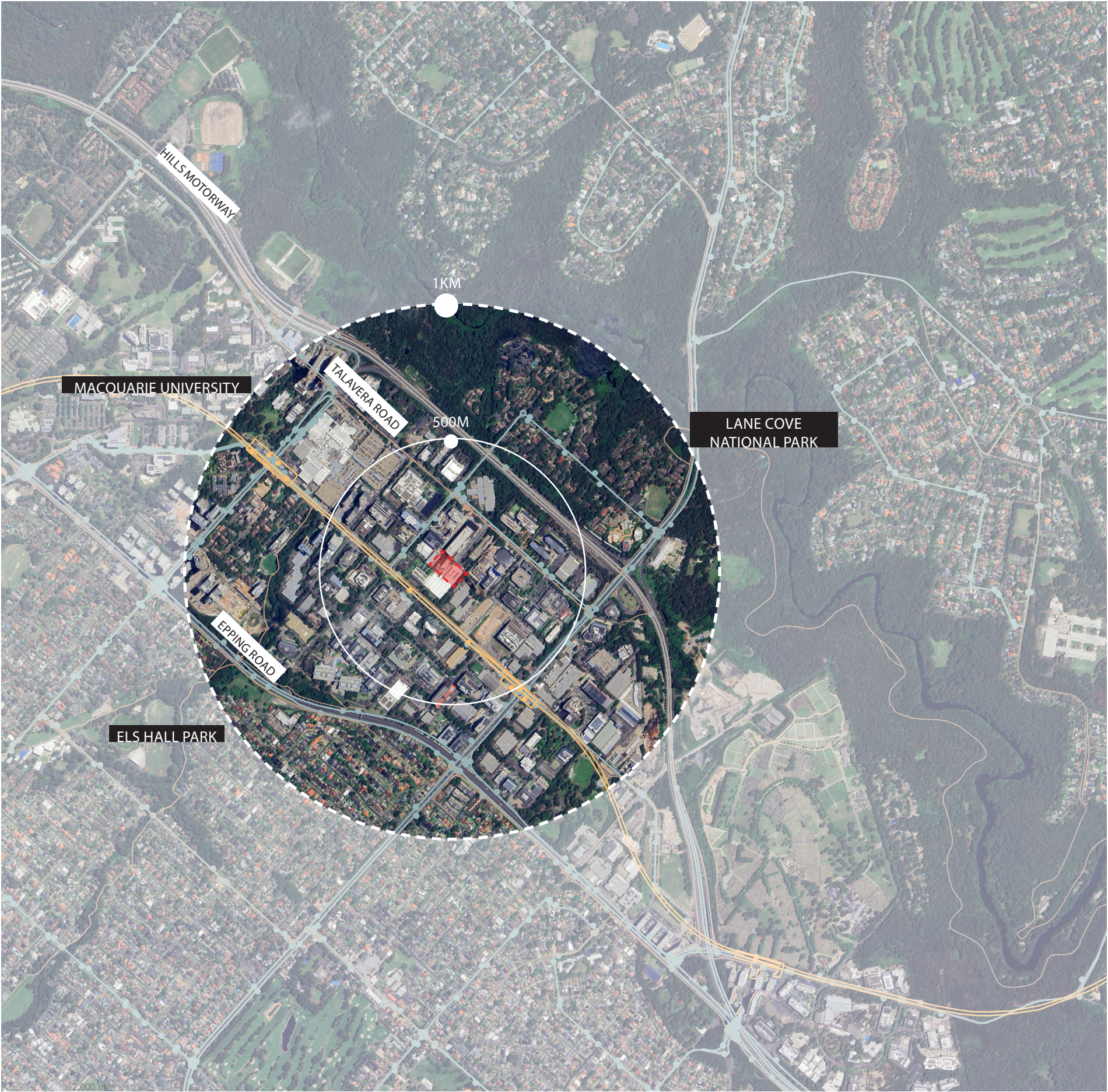
METRO ROUTE

KEY CYCLE ROUTE

WATERWAY

SITE

SURROUNDING VEGETATION



Connecting With Country

Walk on Country

The Macquarie Park Data Centre development has been shaped by a deep engagement with Country, as outlined in the Walk on Country and Connection with Country reports. These reports document the collective knowledge and guidance of Traditional Custodians, ensuring that the site’s cultural significance, materiality, and connection to Country are meaningfully embedded in the development’s design.

As the data centre sits within the Stage 2 area, Stockland has determined that the insights from these reports remain relevant and applicable, eliminating the need for a new Walk on Country. Key themes from these studies highlight the enduring spiritual and cultural importance of water within the landscape, with dreaming pathways and seasonal flows shaping the site’s narrative. The reports emphasize the use of locally significant materials, such as timber, stone, and earth-inspired finishes, to honor the site’s history and Indigenous perspectives on place-making. The landscape is further enriched by plantings that reflect traditional ecological knowledge, reinforcing a sense of continuity with the natural systems and stories that have existed for generations.

By integrating these insights, the concept for the Road 01 Data Centre continues the site’s broader commitment to respecting and celebrating Country, ensuring that the spirit of place is carried forward through both built and natural elements.



Stockland

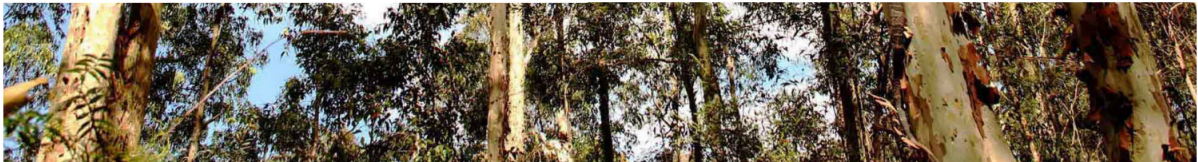
M_Park

Designing with Country
Workshop Outcomes
28 October 2021





Macquarie Park
M_Park Stage 2
Landscape For Stockland

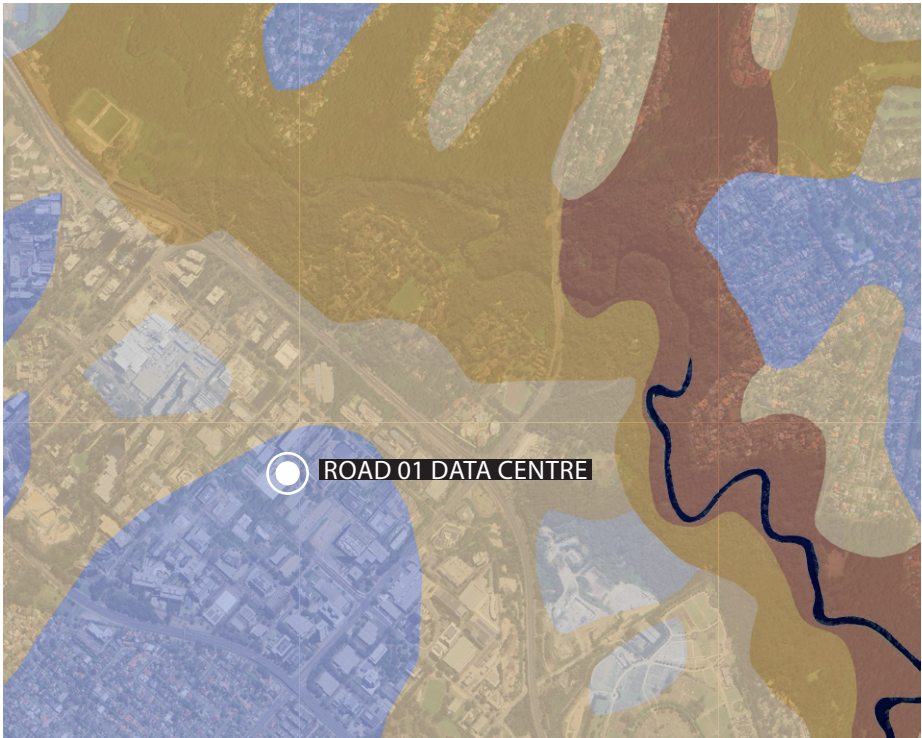


ASPECT Studios™

Revision: F Date: 26/10/2022

Analysis

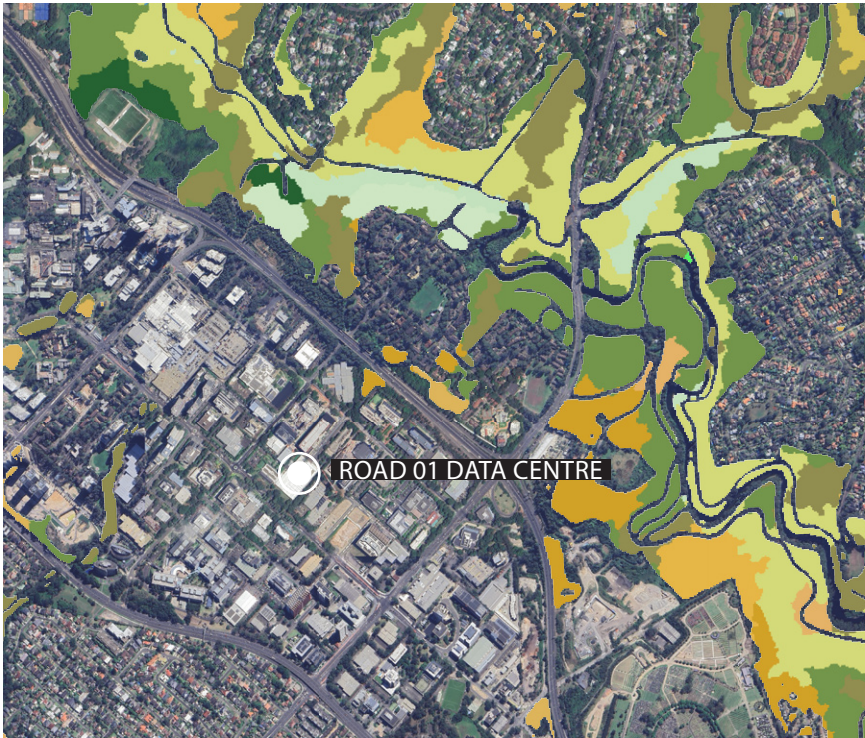
Site Context - Ecological and Geological Conditions



- Dermosols (DE)
- Kurosols (KU)
- Tenosols (TE)
- Rudosols (RU)

Soil

The Australian Soil Classification (ASC) identifies Kurosols (KU) and Dermosols (DE) as key soil types in the surrounding area. Kurosols are strongly acidic soils with a distinct texture contrast, often found in forested or upland areas, requiring management for fertility. Dermosols are well-structured, fertile soils typically found in areas with moderate to high rainfall. These soils support a wide range of vegetation and are often used for agriculture due to their good drainage and nutrient-holding capacity.



- Northern Sydney Scribbly Gum Woodland
- Sydney Enriched Sandstone Moist Forest
- Sydney Coastal Enriched Sandstone Forest
- Sydney Coastal Sandstone Gully Forest
- Northern Sydney Heath-Mallee
- Sydney Coastal Sandstone Bloodwood Shrub Forest

Vegetation

The surrounding native vegetation character reflects the rich ecological diversity of the Sydney Basin and the Lane Cove River catchment, including Northern Sydney Scribbly Gum Woodland, Sydney Enriched Sandstone Moist Forest, Sydney Coastal Enriched Sandstone Forest, and Northern Sydney Heath-Mallee. Dominant species include *Angophora costata*, *Eucalyptus pilularis*, *Banksia serrata*, *Grevillea sericea*, *Lomandra longifolia* and *Doodia aspera*.

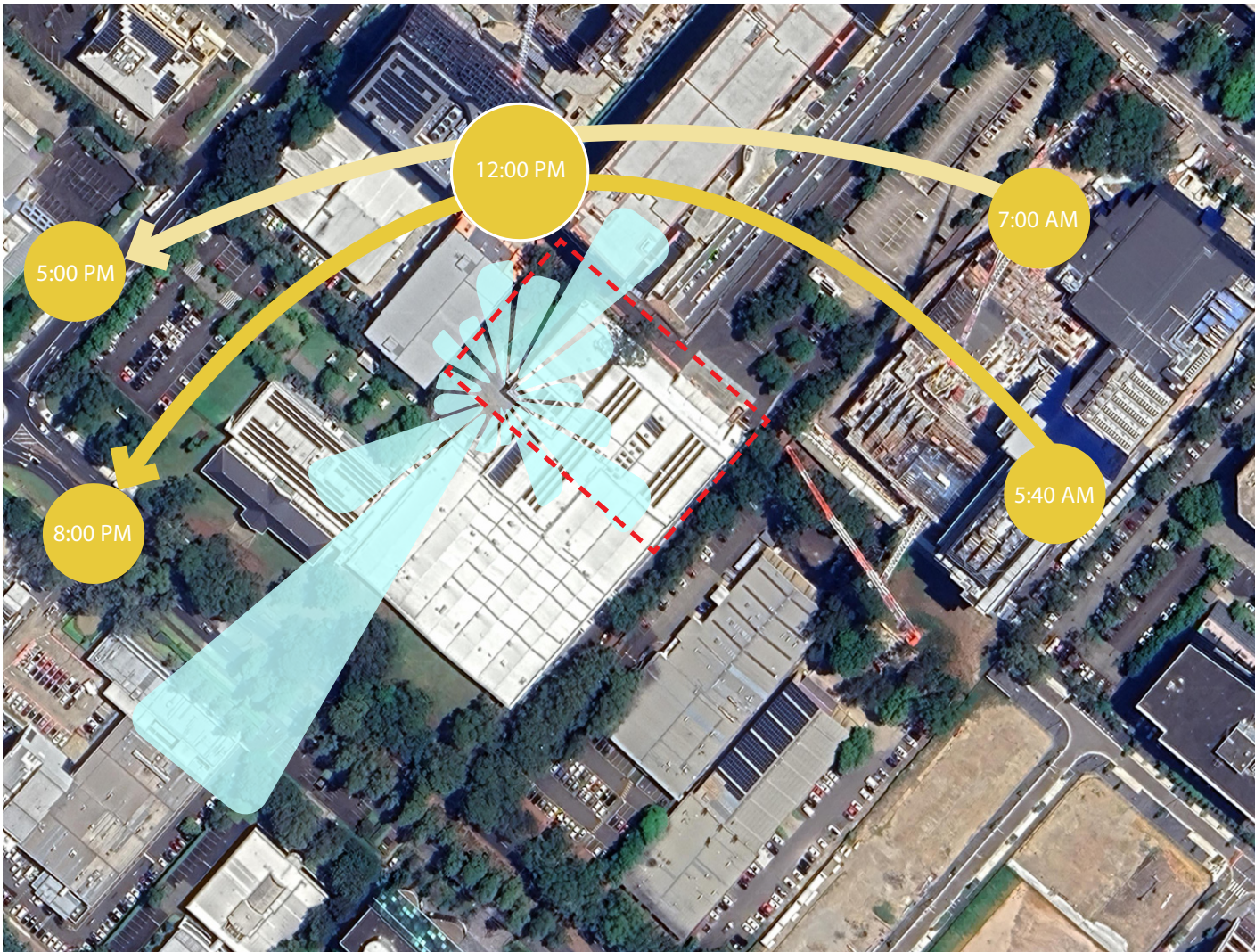


- Sedimentary Rocks
- Triassic sedimentary rocks

Geology

The Road 01 Data Centre site sits primarily on Triassic sedimentary rocks, shaping its rugged terrain and elevated landforms. Along watercourses, patches of Quaternary alluvial deposits indicate more recent sedimentation, influencing soil types and vegetation patterns across the site.

Site Analysis



Wind and Solar Analysis

- KEY
- WIND
 - SOLAR
 - SITE



Topographic Analysis

- KEY
- HIGH TO LOW
 - SITE

Analysis
Site Character - Existing Conditions





TWO SITE REQUIREMENTS

Site Opportunities

OPPORTUNITIES

- / Enhance the ecological value of the site by increasing the existing native vegetation
- / Create defined anchors in the public domain
- / Integrate functional landscape systems such as WSUD to capture and filter on site water
- / Breakout spaces for staff
- / Create a strong link to the future road 23
- / Create a strong link to the future through site link
- / Engage with local Indigenous knowledge (Darug Country) by integrating cultural storytelling, interpretive signs etc
- / Visually soften the built form via tree planting and screening vegetation
- / Mitigate the urban heat island effect through tree planting along Road 01 and Road 23 and within the site for shade and comfort and retention of trees along southern edge of the Kennards site

KEY



ENHANCE ECOLOGICAL VALUE WITH NATIVE PLANTING



DEFINED ANCHORS IN THE PUBLIC DOMAIN, POTENTIAL TO INTEGRATE FIRST NATIONS DESIGN PRINCIPLES IN DEVELOPED DESIGN DETAILING



INTEGRATE WSUD TO CAPTURE AND FILTER WATER



FUTURE ROAD 23 STREET INTERFACE



FUTURE GREEN CORRIDOR INTERFACE



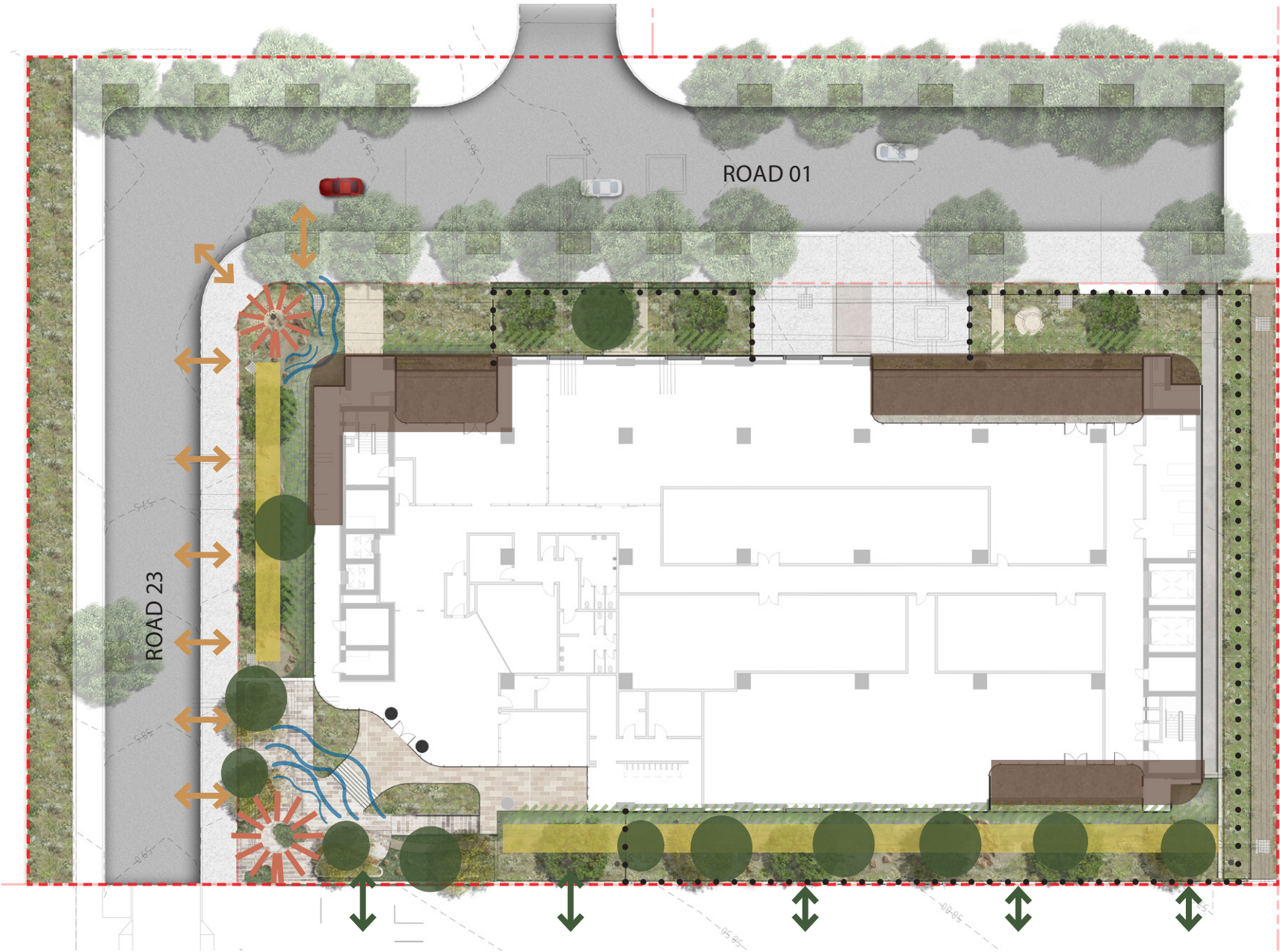
ENGAGE WITH LOCAL INDIGENOUS KNOWLEDGE



VISUALLY SOFTEN BUILT FORM WITH SCREENING PLANTING



BREAKOUT SPACES FOR STAFF



1:500 @ A3 0 2 5 10 15 20m

Site Constraints

CONSTRAINTS

- / Level change from NW to SE of site
- / Minimal endemic vegetation connections surrounding immediate site
- / High security fencing around surrounding buildings required to meet functionality of this use.
- / Utilities required around perimeter of building

KEY



UNDERGROUND UTILITIES WITHIN SETBACK



LIMITED ACTIVE FRONTAGE



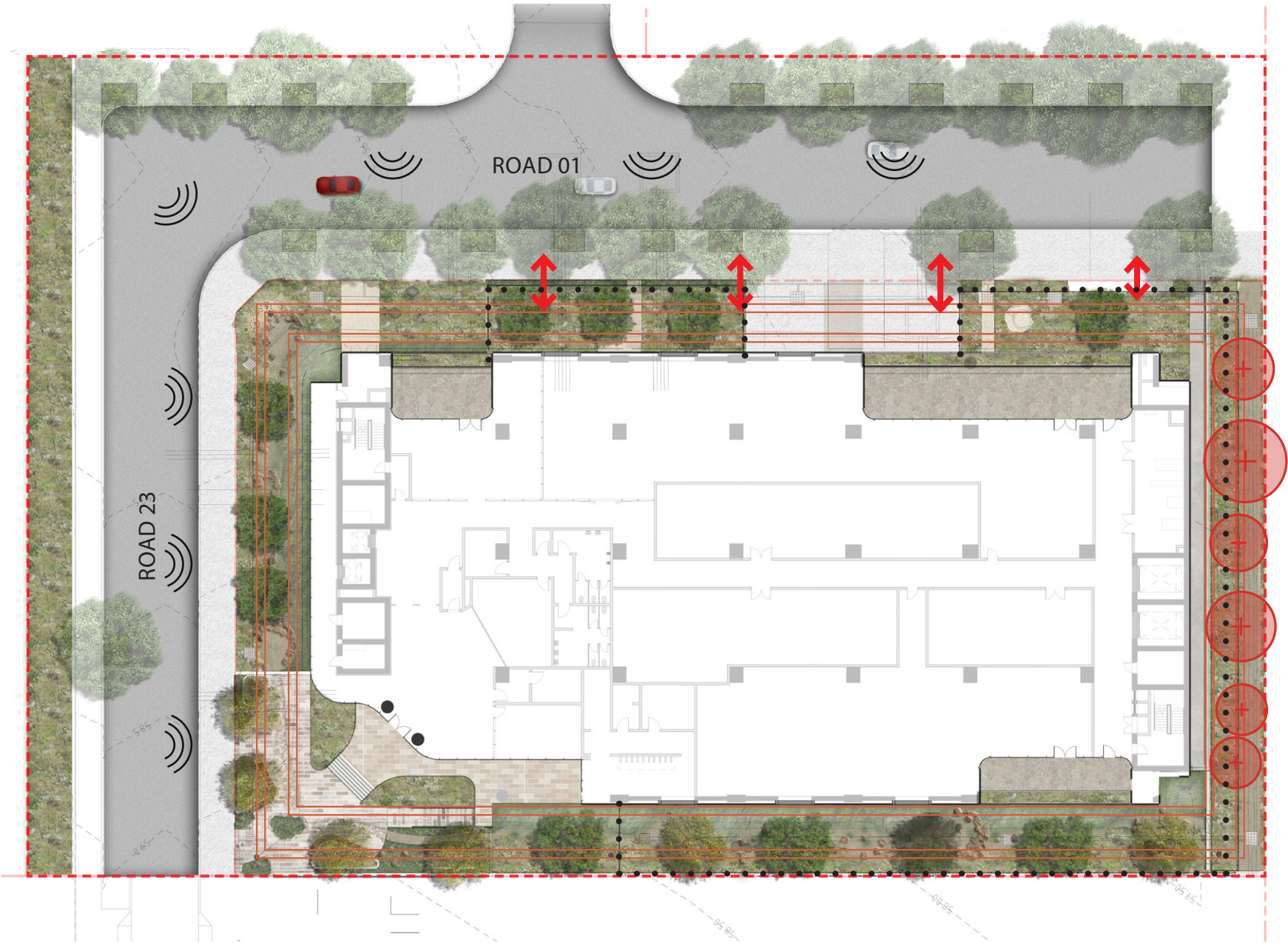
NOISE AND TRAFFIC



SECURITY/FENCE REQUIREMENTS



NECESSITY TO REMOVE TREES



1:500 @ A3 0 2 5 10 15 20m



THREE VISION

Vision - Landscape Strategies

Celebrate country
& enrich culture



Amenity & Public Realm



Ecological and Biodiversity
Integration

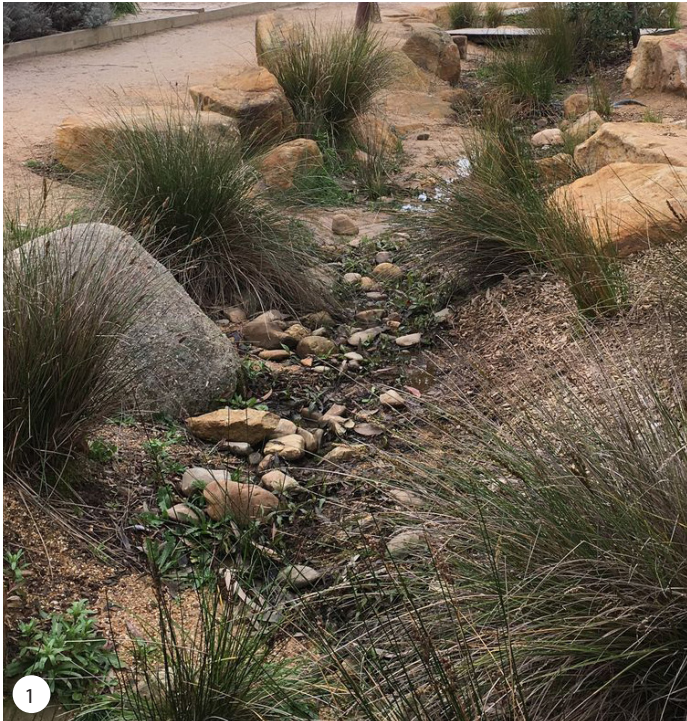


Security & Functionality



Precedents

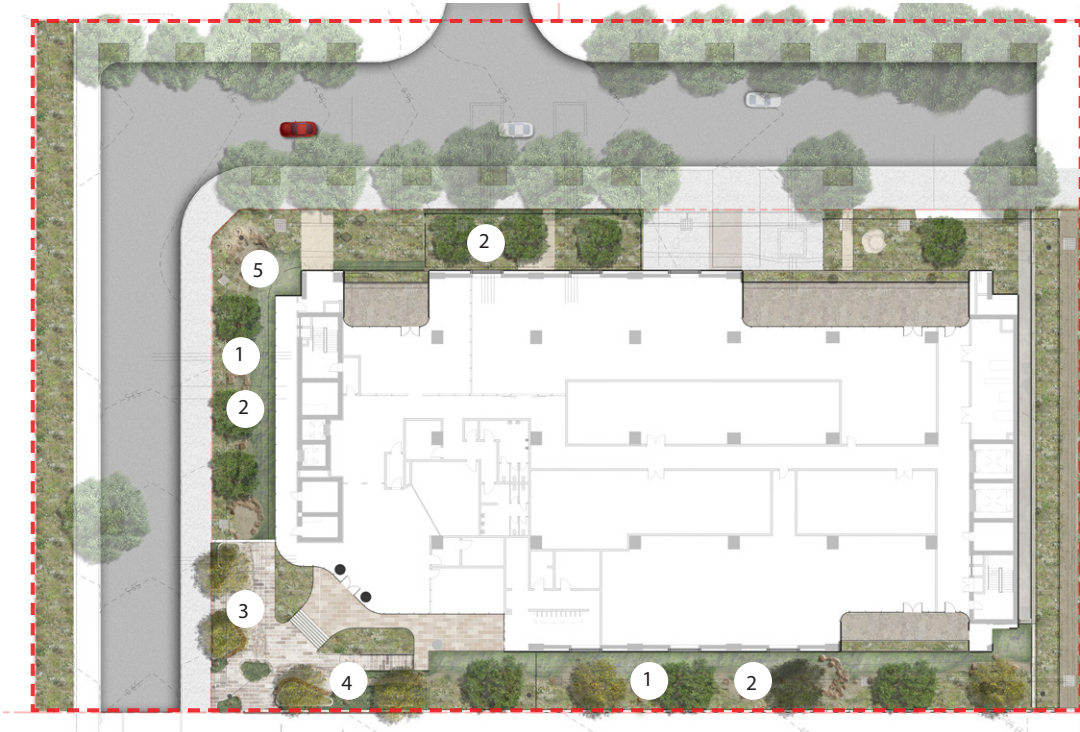
Celebrate Country and Enrich Culture



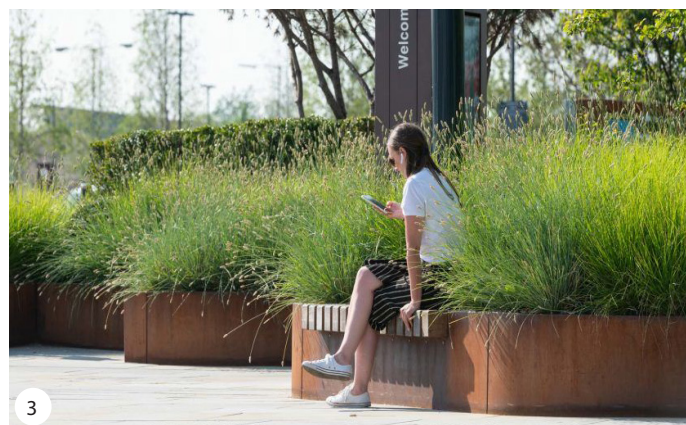
The proposal has been shaped by the themes identified in the walk on country. Interpretation elements are integrated throughout the site to respectfully acknowledge Traditional Custodians and foster a connection to place through subtle, meaningful storytelling. This is through the incorporation of native planting, reference to the creeks and rivers that were once the dreaming lanes of the Darug people through the paving and swales and opportunities for indigenous artwork and locally significant materials. The design incorporates a palette of trees, shrubs and perennials that are largely endemic to the local area. Species are found within the nearby Lane Cove National Park. All indigenous interpretation will be undertaken in collaboration First Nations Working Group and local artists.

- 1 Dry swales to reference the creeklines in the local area
- 2 Endemic and native planting suited to site specific geology and hydrology
- 3 Indigenous interpretation embedded into building entrance paving referencing creeklines
- 4 Organic shaped planters with opportunity for CwC integration
- 5 Opportunity for coordination of first nations design principles

KEY PLAN



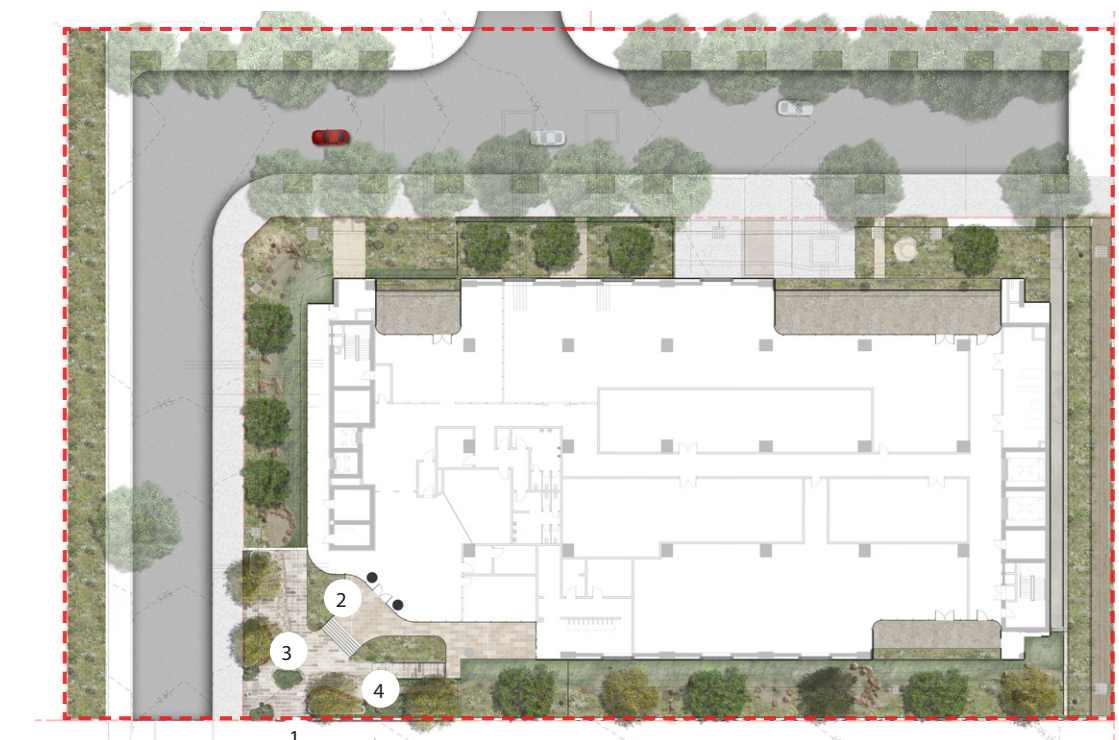
Precedents Amenity and Public Realm



The landscape design aims to improve the visual and environmental quality of the site, contributing to the well-being of staff and public. A key focus is on softening the built form and introducing natural elements that provide comfort and visual interest. Measures such as perimeter of planting around the building providing a visual buffer helping embed it into the broader context, organic planters with integrated seating and bike racks providing flexible outdoor space and activation of the public realm.

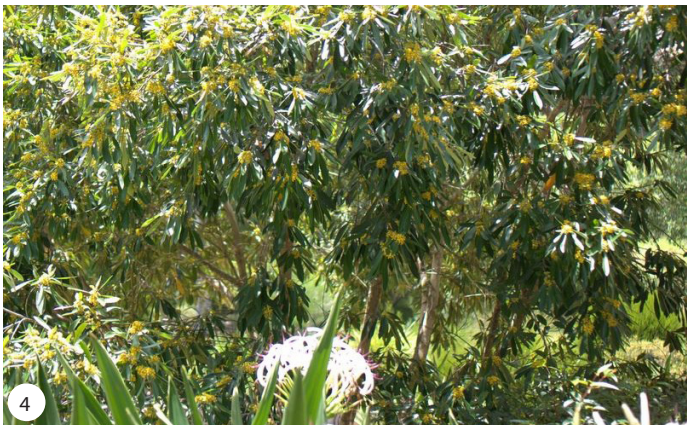
- 1 Bike racks at building entrance to tie into colour palette
- 2 Planting embedded into entry stairs to soften edges
- 3 Organic planter shapes with integrated seating at building entrance
- 4 Soften edges of the site entrance with dense planting within planters

KEY PLAN



Precedents

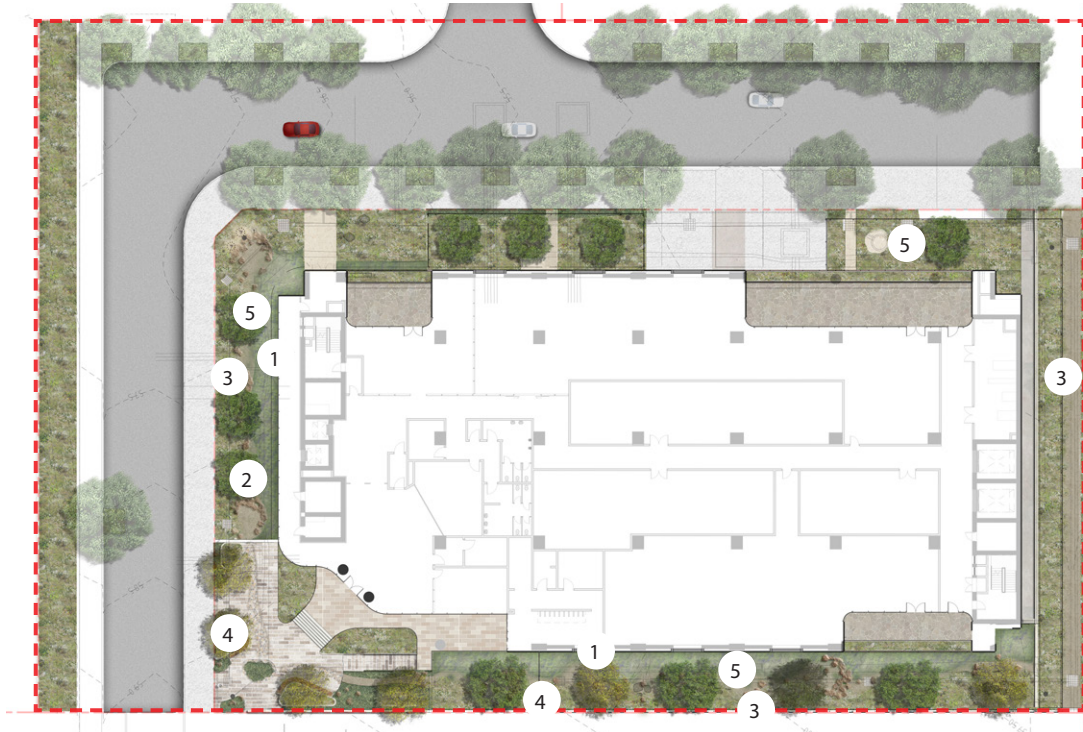
Ecological and Biodiversity Integration



The proposed planting strategy aims to introduce a native palette that fosters a strong sense of place and the connection to land. It enhances the user experience, integrating natural character and ecological value into the site. The plant palette includes species that are within the nearby Lane Cove National Park. Canopy trees are incorporated along the streetscape and around the building perimeter to provide shade, soften the built form, and contribute to the broader urban tree canopy, while aligning with the security and functionality requirements.

- 1 Shade planting up against building facade
- 2 Planting that is tolerant of fluctuating levels of water
- 3 Dense and low maintenance planting on road interface
- 4 Native tree planting with trunk clearance offset from fence
- 5 Swale planting

KEY PLAN



Precedents

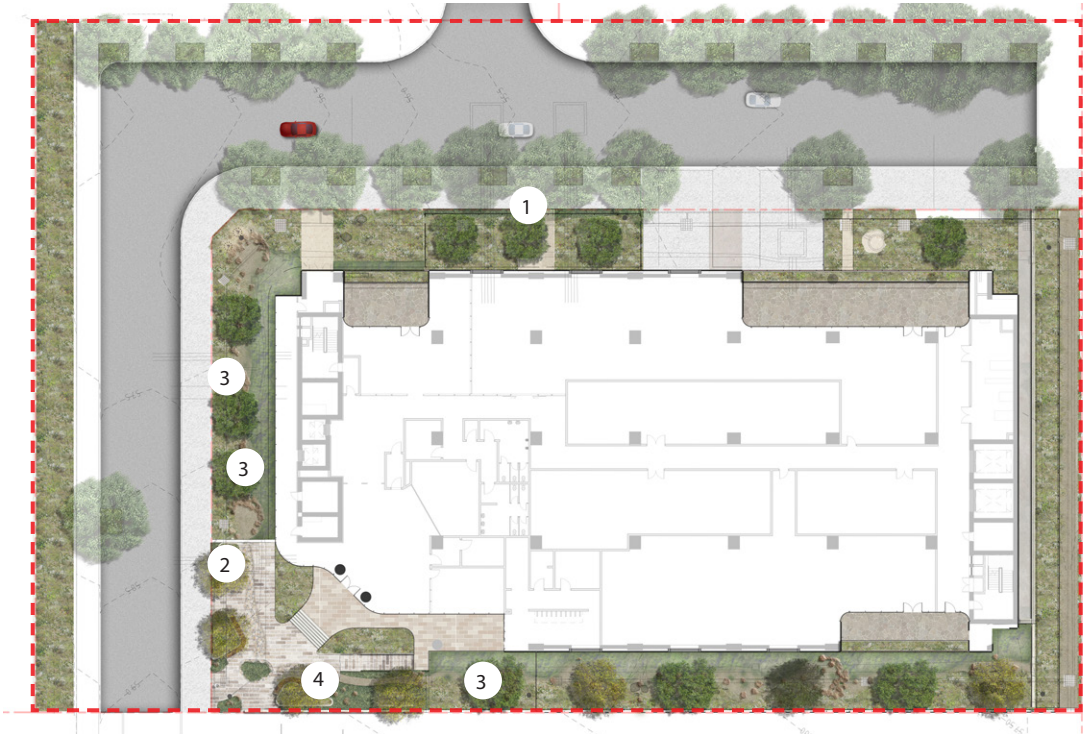
Security & Functionality



The landscape is designed to work cohesively with the operational needs of the data centre. Hardy and low-maintenance planting is positioned to avoid interference with infrastructure, preserve sightlines and anticlimb measures. Natural elements such as strategically placed boulders provide discreet yet effective vehicle mitigation. Natural and varied coloured palisade security fencing is integrated into the design, offering necessary protection while visually blending with the building façade. Incorporation of lighting ensures safety, support after-dark operations, and enhance the site's nighttime character.

- 1 Natural and varied coloured palisade fence to blend into building facade and planting
- 2 Sandstone block boulders to act as vehicle mitigation
- 3 Feature lighting throughout planting for safety
- 4 Tree uplighting for safety and aesthetic

KEY PLAN



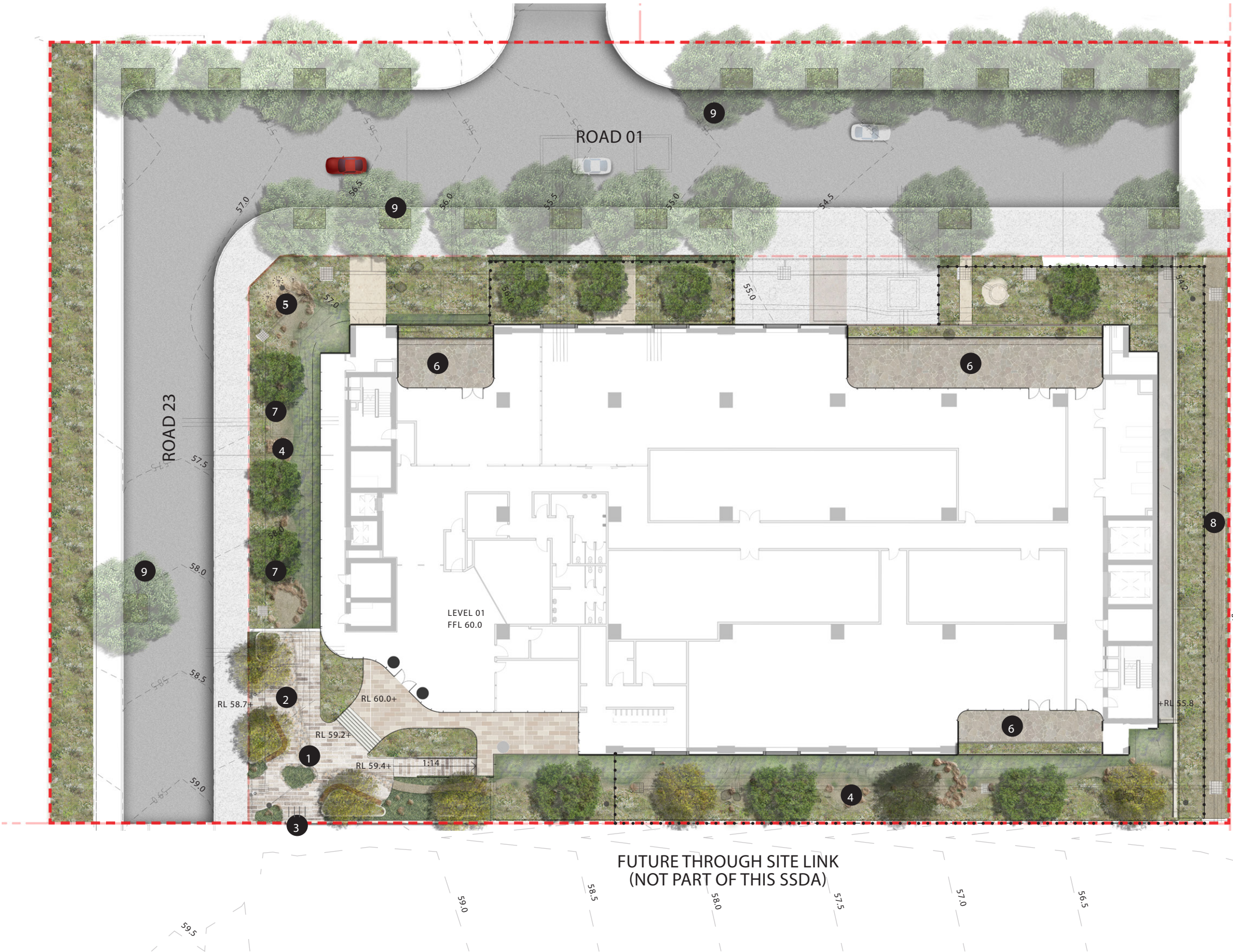


FOUR
LANDSCAPE
DESIGN

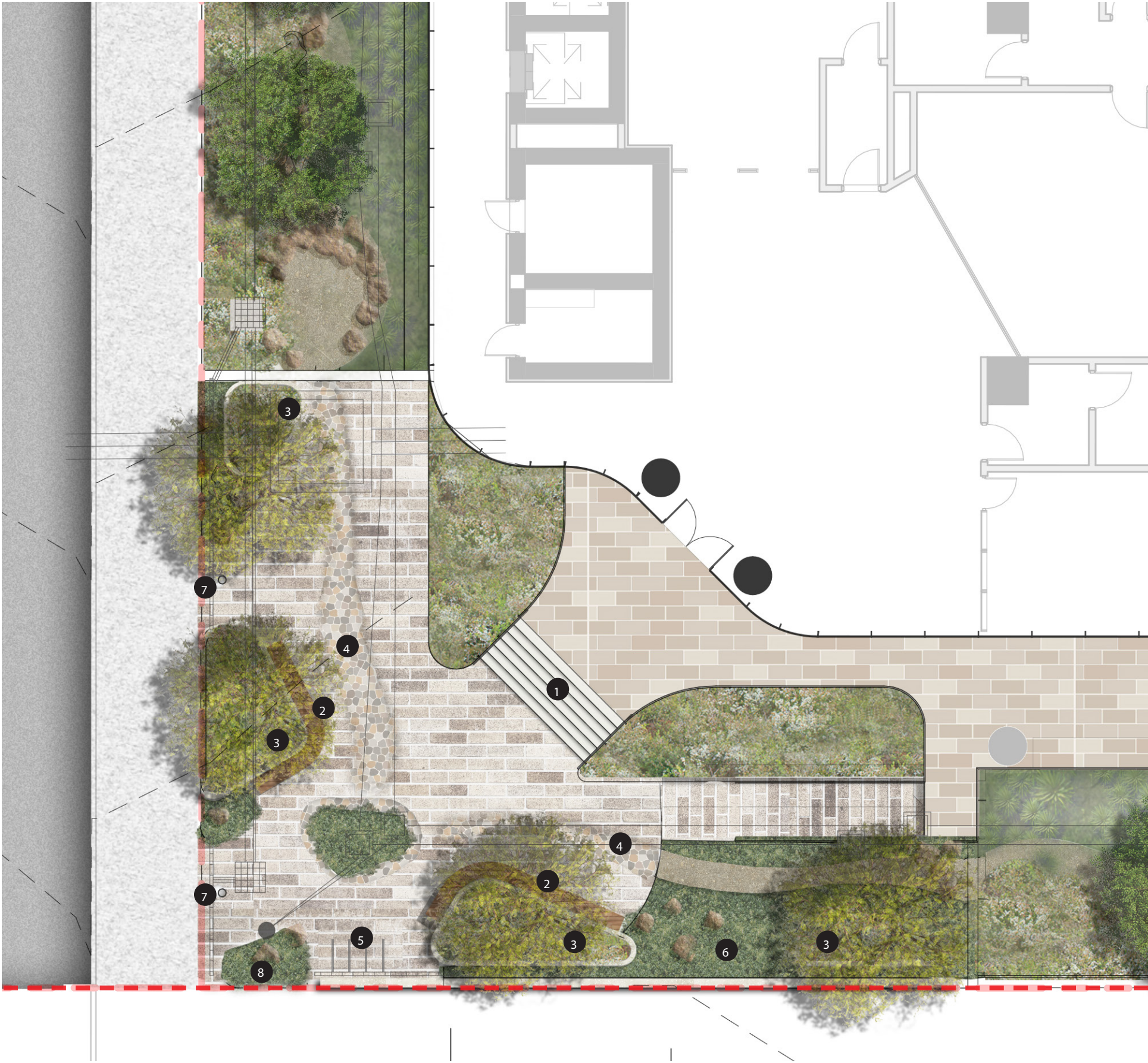
Landscape Masterplan Plan

- KEY
- 1 Entry Forecourt
 - 2 Feature Paving
 - 3 Bike Racks
 - 4 Swale Planting
 - 5 CwC Design Principles Integration
 - 6 Outdoor Breakout Space
 - 7 Barrier Boulders
 - 8 Overland Flow Swale
 - 9 Street tree planting

..... Fence
- - - - Site boundary

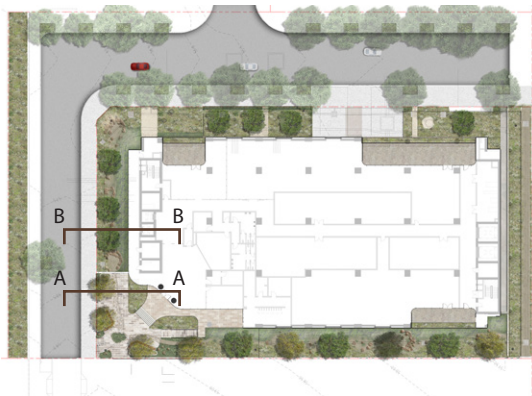


Landscape Masterplan Plan

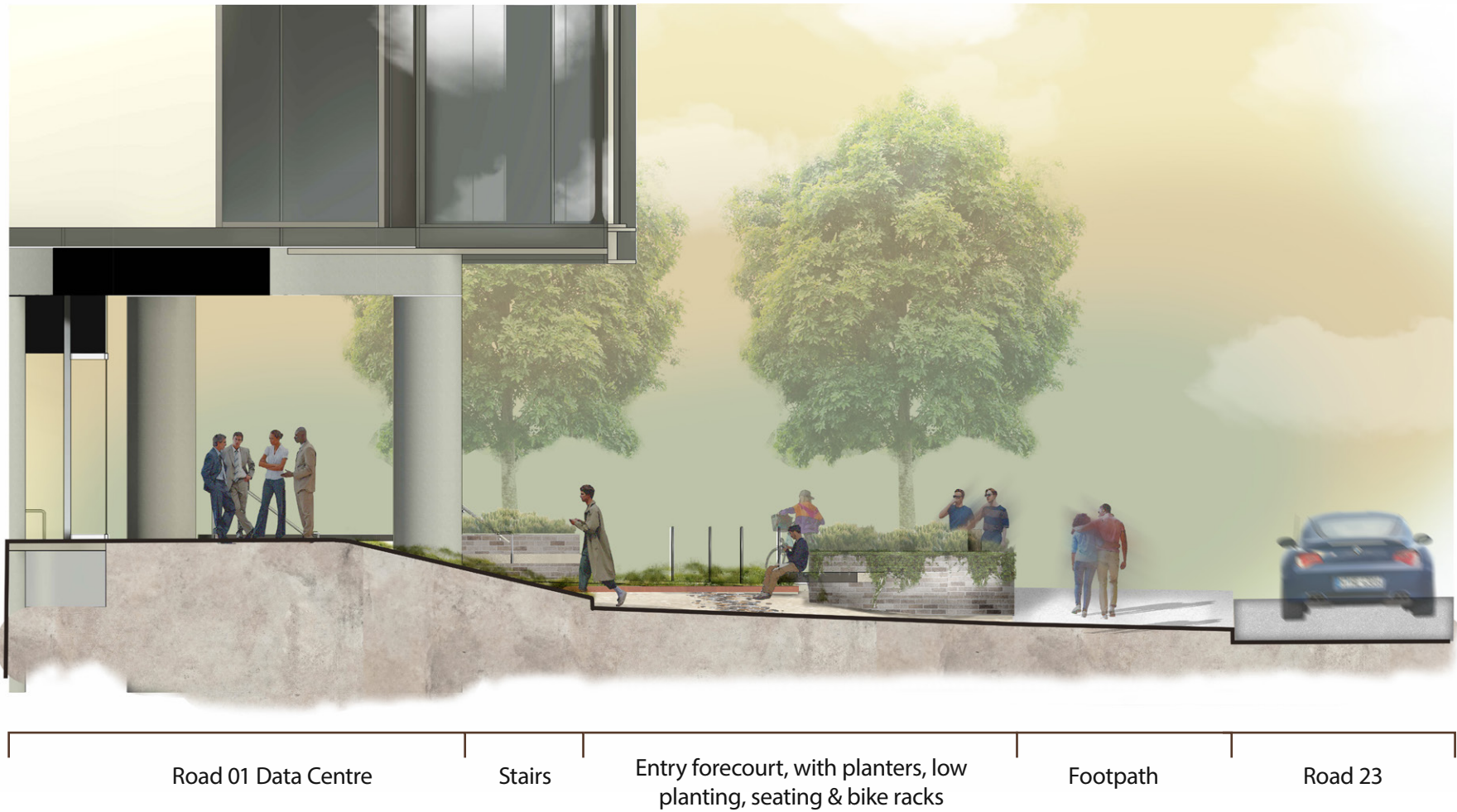


- KEY
- 1 Entry Stairs with planting
 - 2 Seating
 - 3 Raised Garden Bed
 - 4 Feature Paving
 - 5 Bike Racks
 - 6 Battered Planting
 - 7 Removable Bollards
 - 8 Low planting to maintain sightlines

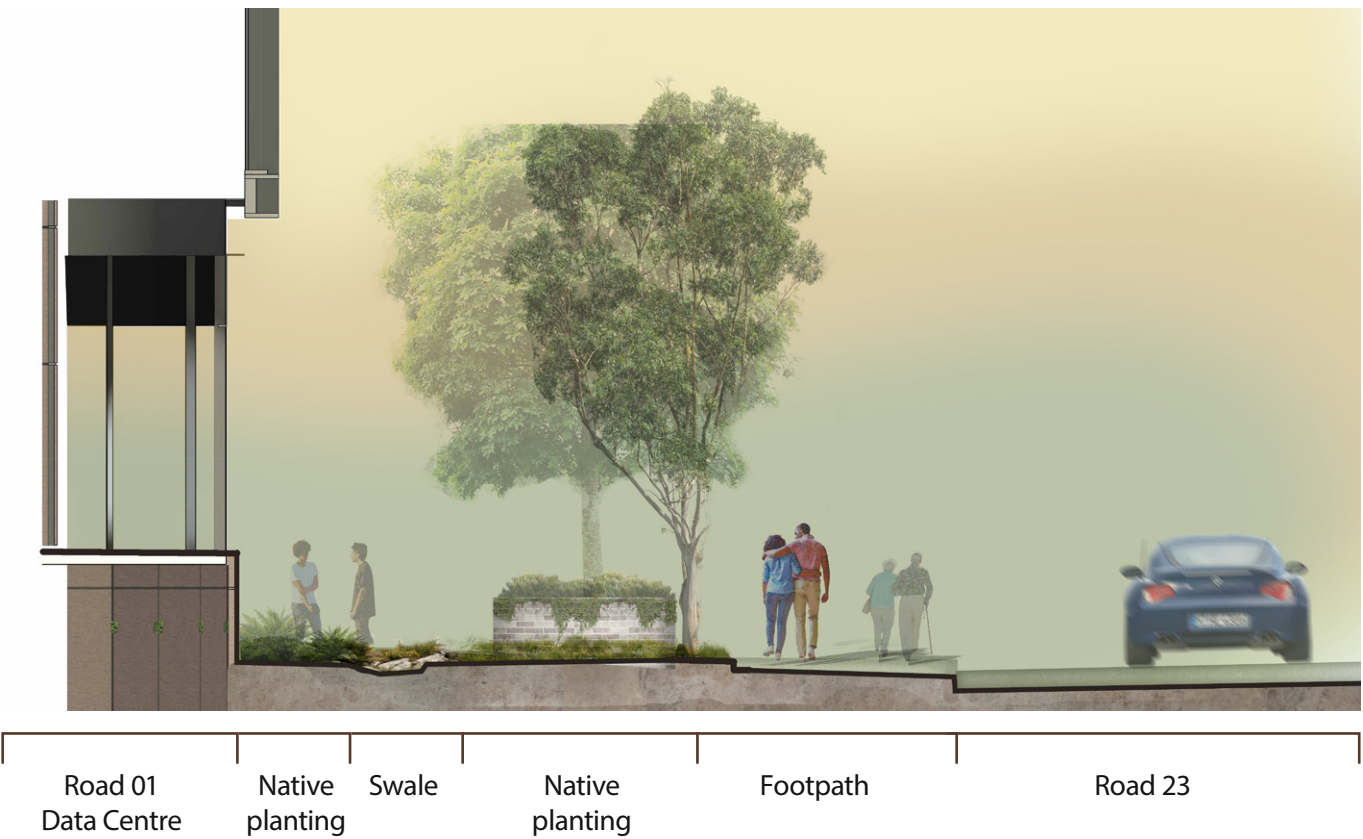
Sections



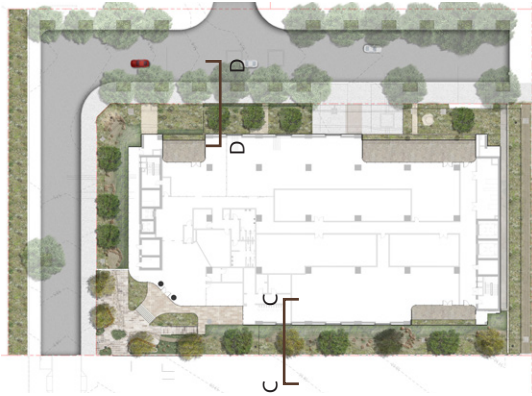
SECTION AA - SITE ENTRANCE



SECTION BB - FUTURE ROAD 1 INTERFACE



Sections



SECTION CC - FUTURE THROUGH SITE LINK INTERFACE



Road 01 Data Centre Native planting Swale Native planting Future Through Site Link

SECTION DD - ROAD 01



Road 01 Data Centre Native planting Footpath Streetscape planting Road 01

Deep Soil

The site does not achieve the 20% deep soil target due to operational constraints associated with the data centre including inground services.

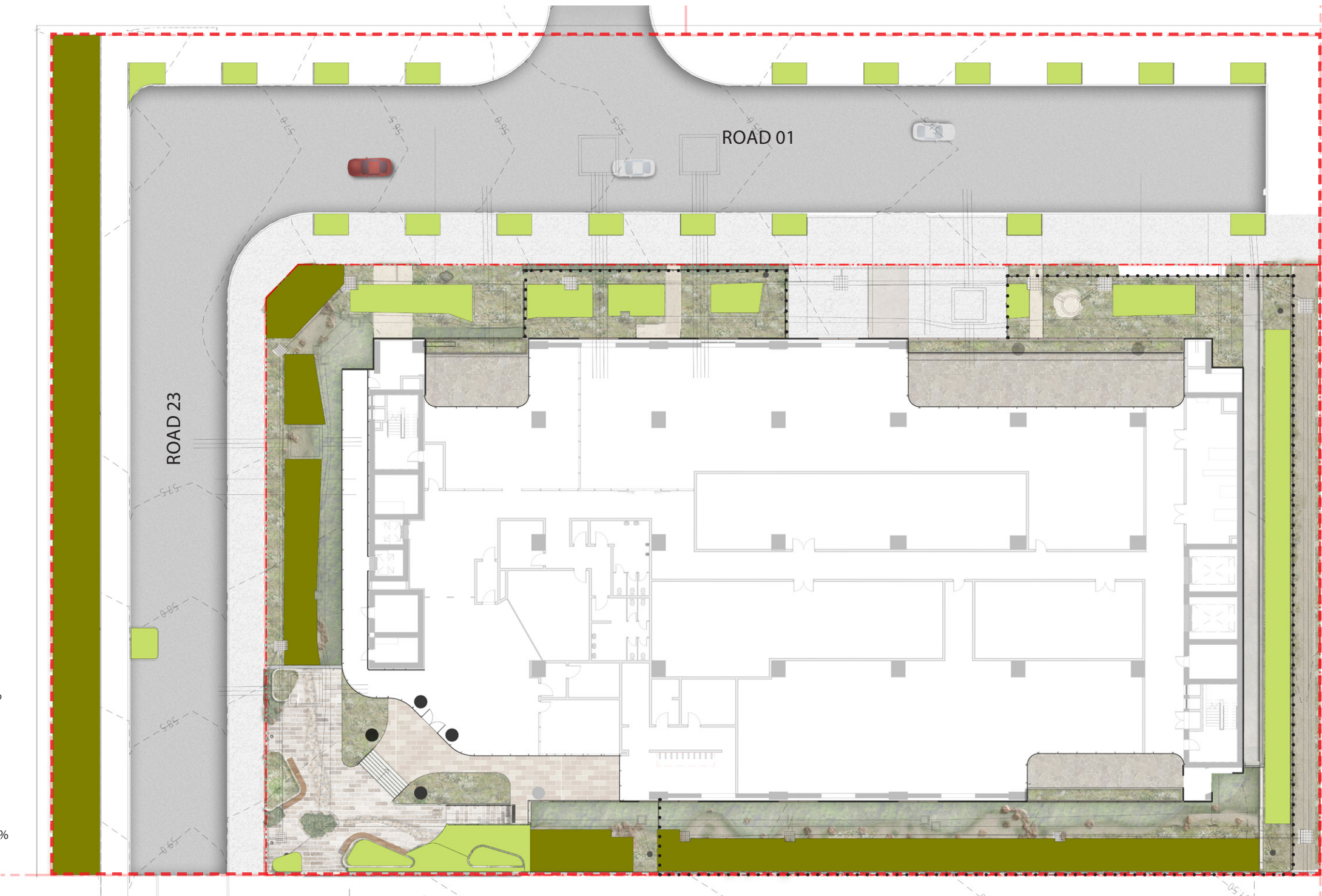
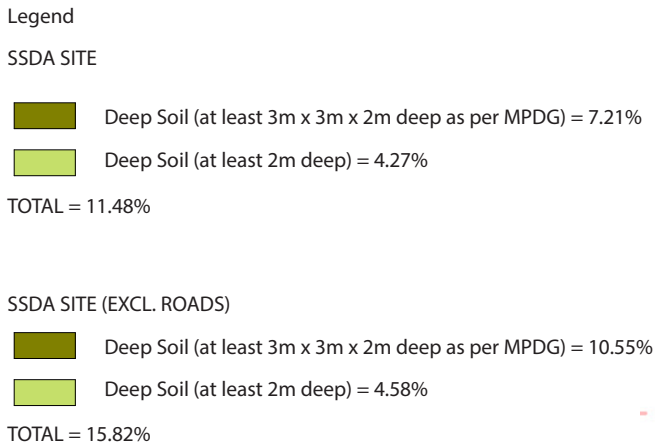
Inground services have been carefully rationalised, while ensuring compliance with Australian Standards. Hard stand reduction has been implemented and services relocated and placed beneath the hard stand where feasible, to maximise the deep soil provision.

Roads and pavement also encompass 30% of the total SSDA site, which reduced the opportunity for deep soil in this location.

A precinct wide approach has been applied for this project as Stockland is required to deliver:

- A 7,310m² public park to be dedicated to Council;
- A 1,515m² linear park (not to be dedicated); and
- Additional publicly accessible open space across the broader site.

By combining this with the deep soil areas for the Road 01 and Talavera Road data centres, the minimum area will be achieved.



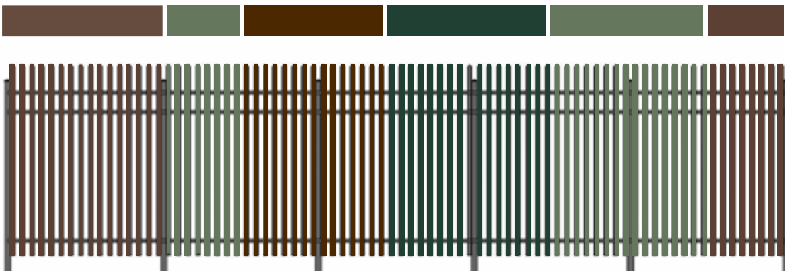
Fence Strategy

The key principles of the fence is to design an integrated landscape and appear unobtrusive, discrete and non intimidating whilst also meet mandatory requirements for data centre security and functionality.

Options explored included a welded mesh and fence and palisade fence. Natural and varied coloured palisade fencing has been selected for its ability to integrate with the landscape and not act as a dominant element. This allows for the planting to be the primary visual element, softening and screening the fence to further reduce its presence within the public realm.

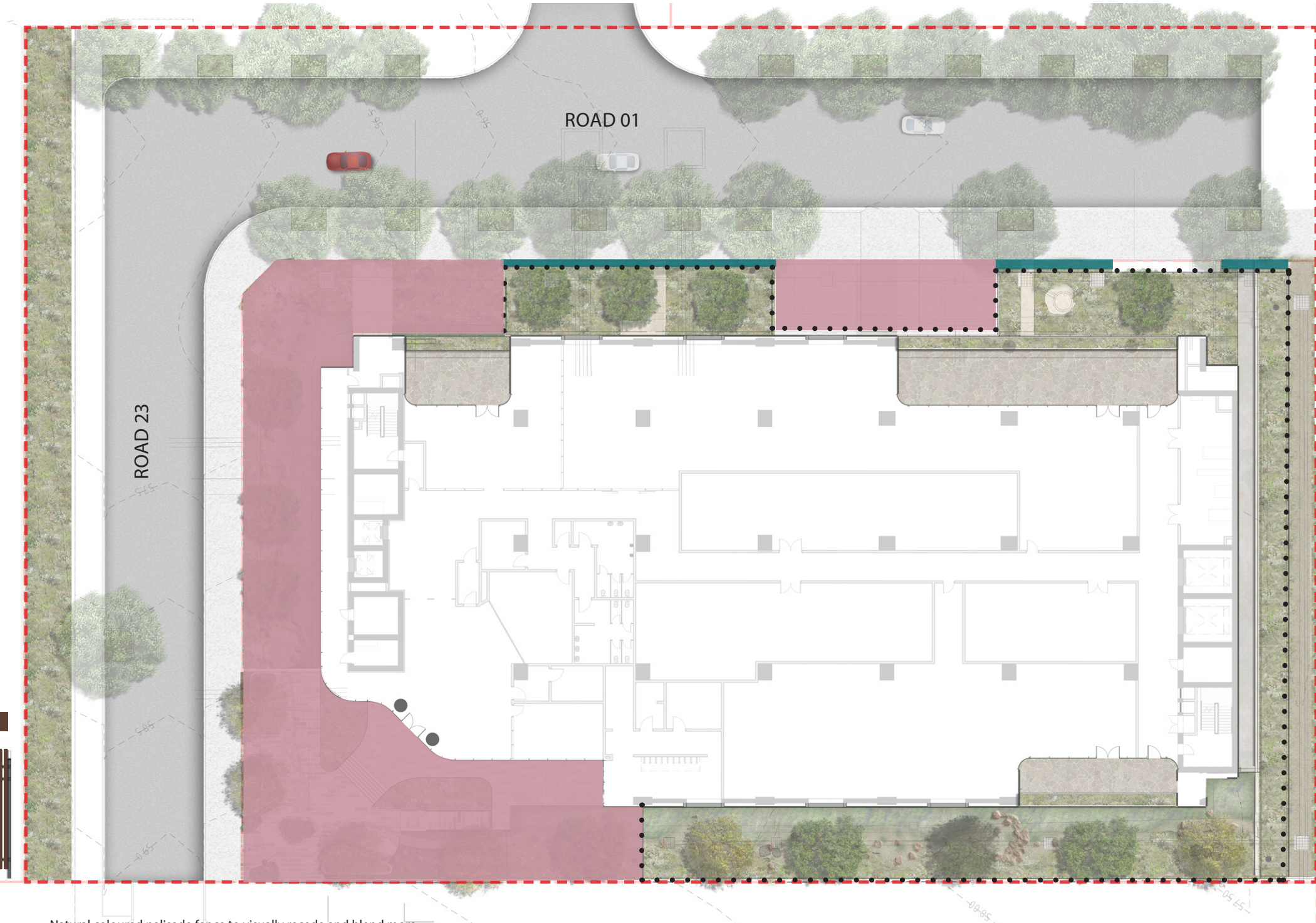
Fencing has been eliminated from the northern end of the site to open up to the public realm, offset along Road 01 and at the vehicular entries. These measures have been implemented to balance the public interface enhancement with security requirements.

The location and reduction of the fence is a significant consideration balancing function needs with urban community outcomes. This will require more stringent measures to be placed on the built form.



LEGEND

- MEDIUM BROWN
- WOODLAND GREEN
- DARK BROWN
- DARK GREEN



- • • Natural coloured palisade fence to visually recede and blend more seamlessly into surrounding environment, allowing planting to be more prominent.

Legend

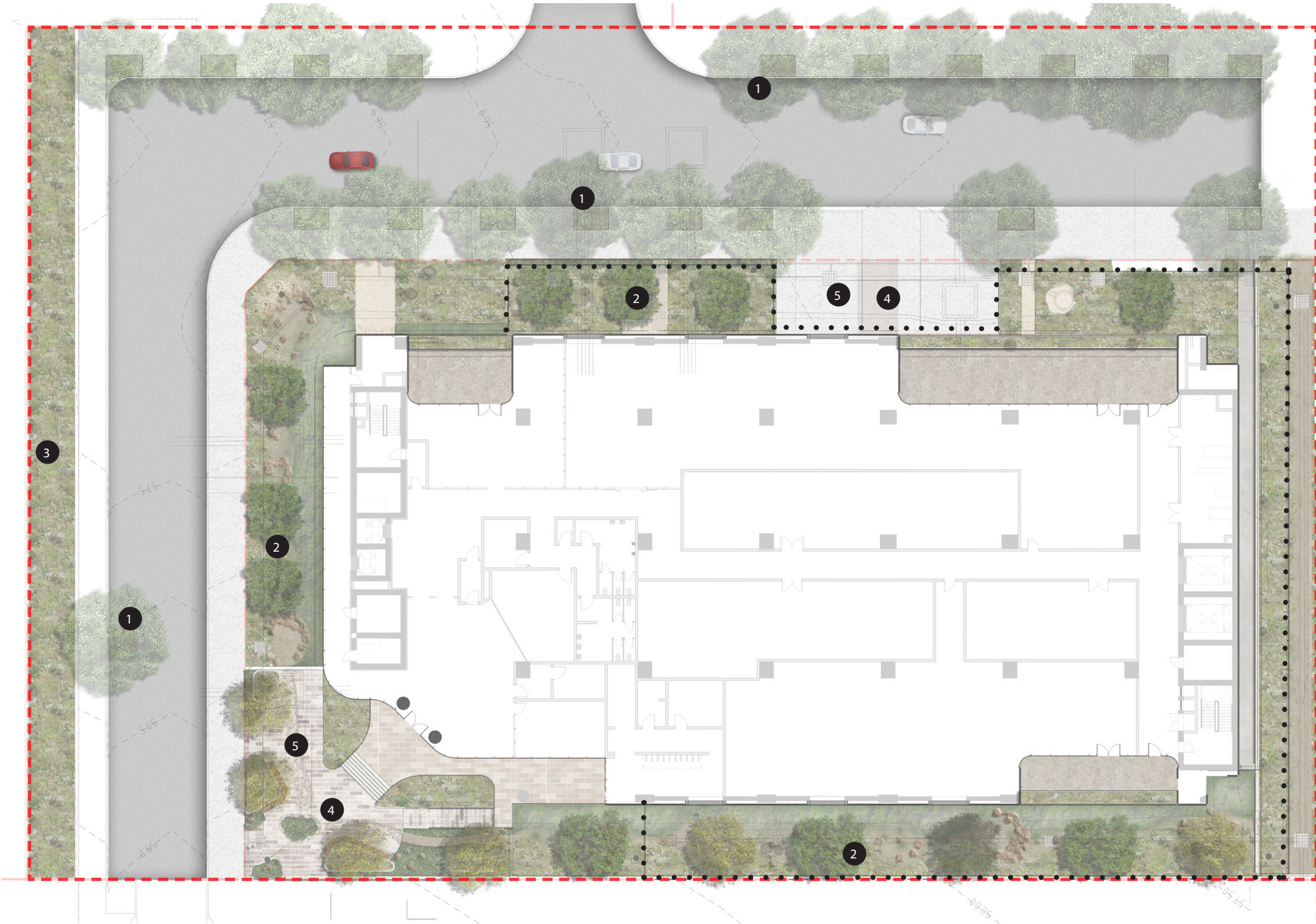
- Exclusion of fence and use of additional security measures (boulders and bollards) blurring threshold between public and private space
- Fence offset 600mm from footpath to soften edge with low native planting

Urban Heat Island Effect

The landscape design aims to reduce surface temperatures and improve thermal comfort by increasing canopy cover and reducing hardstand where possible.

Strategies implemented:

- 1 Large canopy street trees planted along Road 01 and Road 23
- 2 Trees planted around the perimeter of the data centre building
- 3 Existing trees retained along the southern side of the Kennards site
Proposed design results in a 27.7% tree canopy coverage (refer to page 37)
- 4 Limited hardstand area, predominantly located as required in the entry and access points
- 5 Light coloured pavement to reduce heat absorption

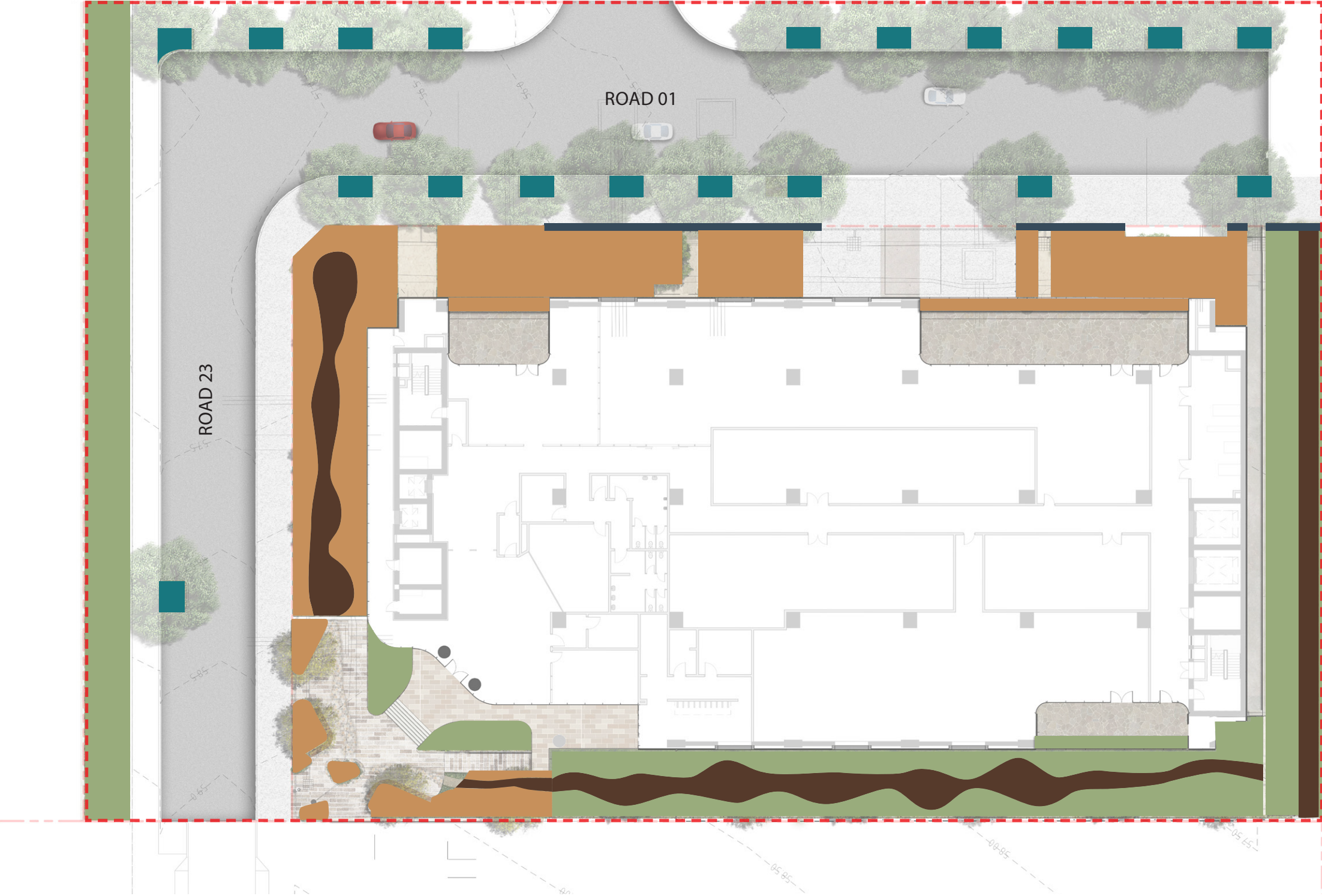




FIVE PLANTING

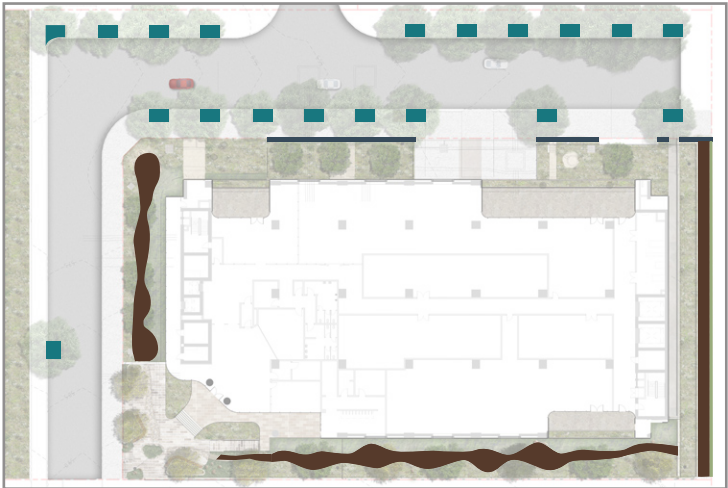
Planting Strategy

The planting strategy aims to introduce a native palette that fosters a strong sense of place and connection to the land. The plant palette consists of all native species and includes species that are found within the nearby Lane Cove National Park.



- KEY
- MODERATE SUN PLANTING
 - SHADED PLANTING
 - LOW PLANTING STREET INTERFACE
 - SWALE/BIORETENTION PLANTING
 - STREETSCAPE

Planting Palette



Low Planting



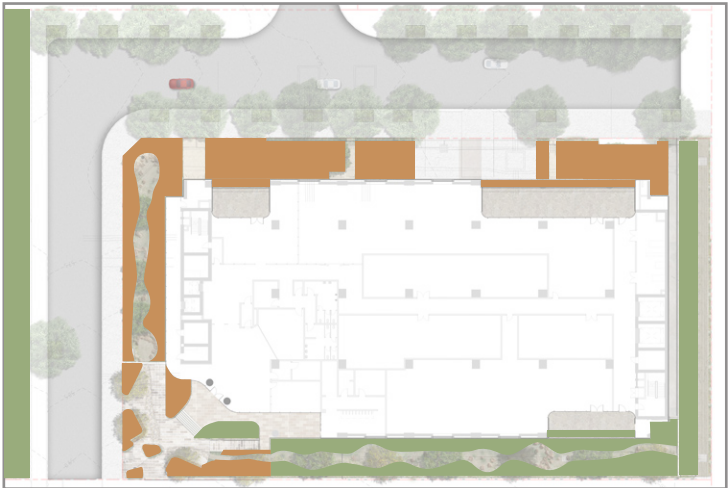
Swale



Streetscape



Planting Palette



Moderate Sun



Lomandra labill



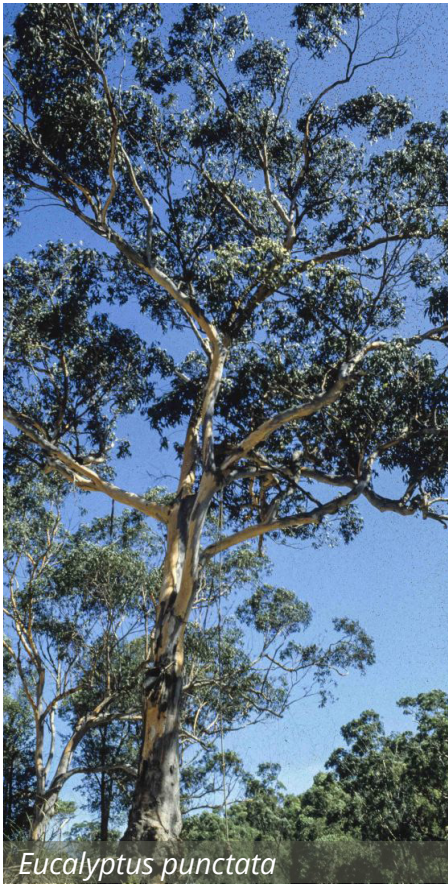
Poa labillardieri



Grevillea juniperina



Persoonia linearis



Eucalyptus punctata



Elaeocarpus reticulatus

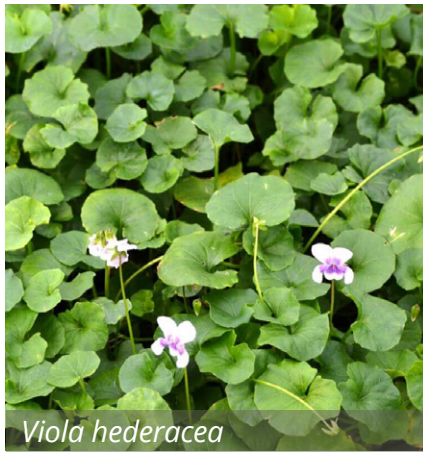
Shade



Blechnum cartilagineum



Dianella caerulea



Viola hederacea



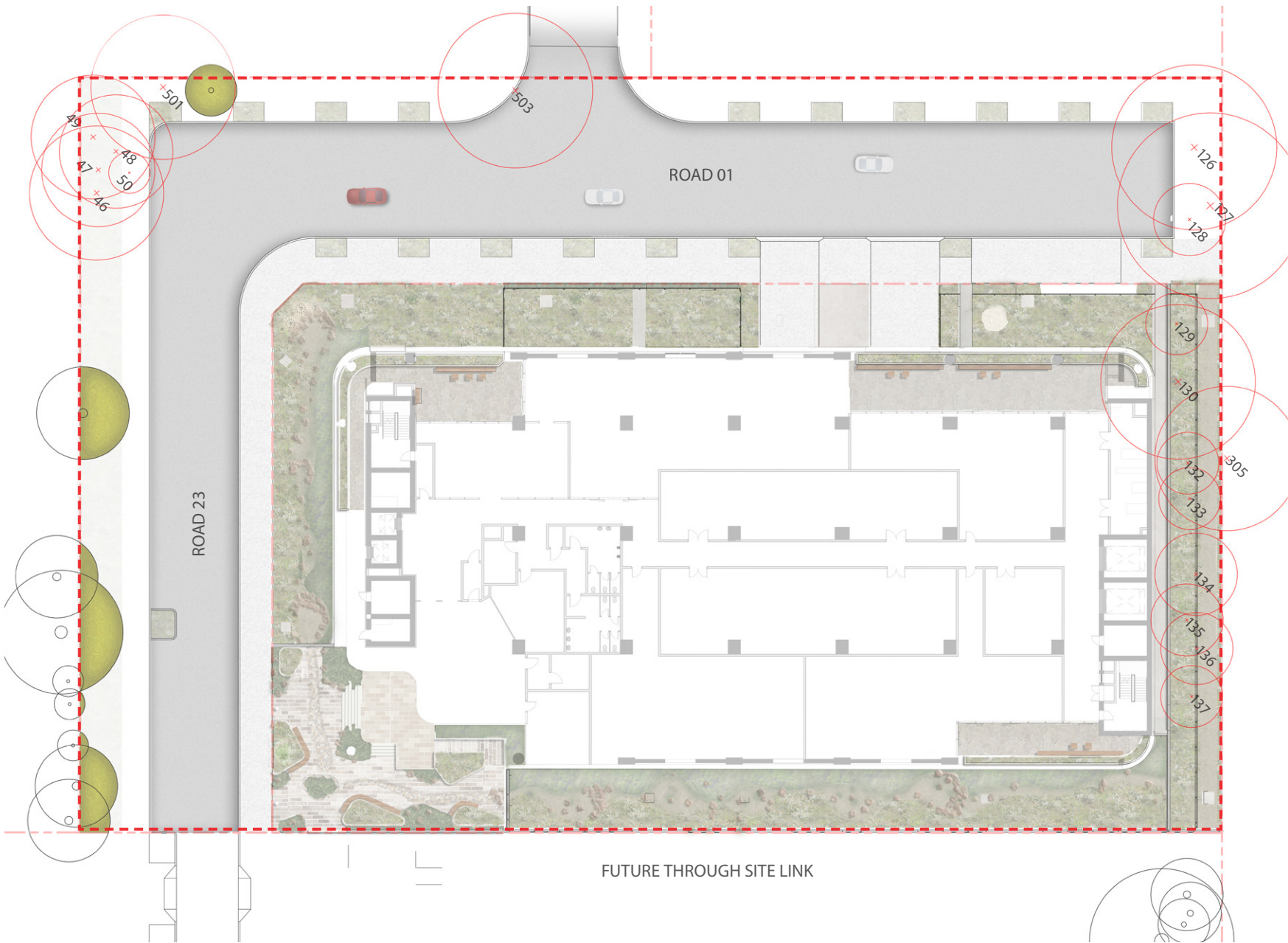
Adiantum aethiopicum

Trees Removed

Trees to be removed are not viable to be retained due to the proposed development, the constraints of the site and the amount of shade that the proposed building will throw over the trees to the southeast of the proposed data centre.

Seeds are to be harvested and resown from any trees removed.

Tree No.	Species	Recommendations	Retention Value
46	Corymbia maculata	Remove	Medium
47	Corymbia maculata	Remove	Medium
48	Corymbia maculata	Remove	Medium
49	Corymbia maculata	Remove	Medium
50	Callistemon viminalis	Remove	Medium
126	Eucalyptus saligna	Remove	High
127	Eucalyptus saligna	Remove	High
128	Eucalyptus saligna	Remove	High
129	Eucalyptus saligna	Remove	High
130	Eucalyptus saligna	Remove	High
132	Callistemon viminalis	Remove	Medium
133	Callistemon viminalis	Remove	Medium
134	Casuarina cunninghamiana	Remove	Medium
135	Callistemon viminalis	Remove	Medium
136	Callistemon viminalis	Remove	Medium
137	Casuarina cunninghamiana	Remove	Medium
501	Eucalyptus saligna	Remove	High
503	Eucalyptus saligna	Remove	High



Proposed Trees and Trees Retained

Trees have been strategically placed to balance shade, amenity, and safety—avoiding placement at corners where visibility is critical for data centres. While increased southern setbacks were considered, site constraints limit further adjustment. Instead, greater generosity is provided along the northern interface near Kennards, with enhanced setbacks, landscaping, and activation to enrich the public realm.

Proposed tree planting is to replace the removed trees and include additional trees, resulting in an increase of 16.8% of canopy coverage on site.

Proposed tree canopy coverage is 27.7% of the site area, which exceeds the target of 25% as per the Macquarie Park Design Guide (2024).

Tree No.	Species	Recommendations	Retention Value
45	Corymbia maculata	Retain	Medium
275	Casuarina cunninghamiana	Retain	Medium
276	Casuarina cunninghamiana	Retain	Medium
277	Banksia integrifolia	Retain	Medium
278	Banksia integrifolia	Retain	Medium
279	Banksia integrifolia	Retain	Medium
281	Eucalyptus robusta	Retain	Medium
282	Casuarina cunninghamiana	Retain	Medium
305	Eucalyptus saligna	Retain	High
518	Melaleuca quinquenervia	Retain	High

Key	Species	Recommendations	Qty	Size
COR mac	Corymbia maculata	Proposed	1	Large
EUC ter	Eucalyptus tereticornis	Proposed	18	Large
EUC pun	Eucalyptus punctata	Proposed	4	Medium
ELA ret	Elaeocarpus reticulatus	Proposed	12	Small

TREE SUMMARY

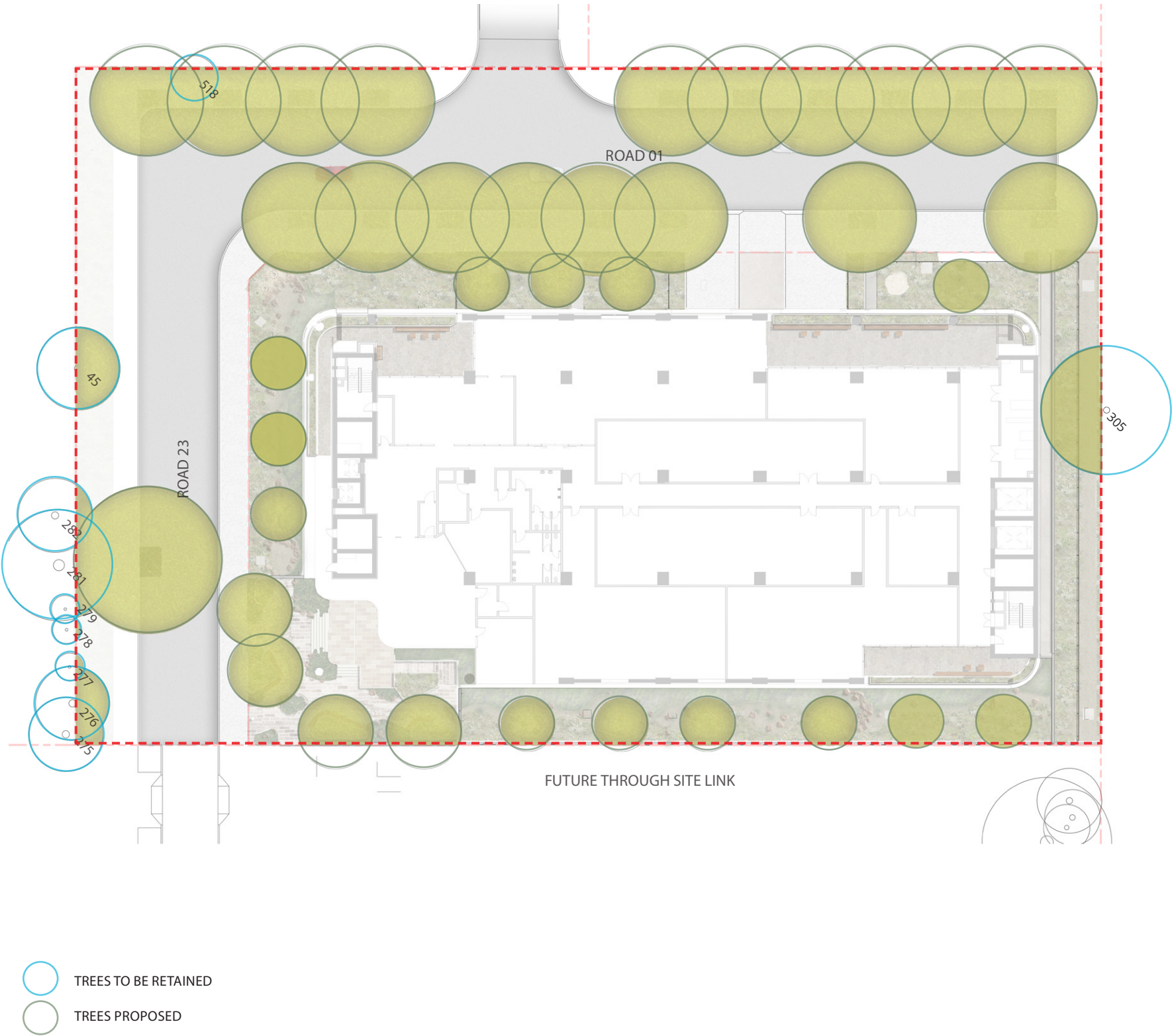
Total trees removed	Total trees retained	Total trees proposed
19	10	36

CANOPY COVERAGE BREAKDOWN

	Canopy coverage (m2)	Canopy coverage (%)
Site area excl. roads		
4,890m2	416.6m2	8.5%
Dedicated roads		
3206m2	1830.9m2	57.1%

CANOPY COVERAGE SUMMARY

Total site area	Existing canopy coverage	Percentage (existing)	Proposed canopy coverage	Percentage (proposed)
8,096m2	887.9m2	10.9%	2247.5m2	27.7%



ARCADIA