

Project Mars Data Centre | SSDA Architectural Design Report - Rev. B



12 Mars Rd, Lane Cove West, NSW 2066

17th February 2026



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We would like to acknowledge the Traditional Custodians of the land, the Cameraygal people. We pay our respects to Elders past and present and extend that respect to all Aboriginal and Torres Strait Islander peoples today.



PAST, PRESENT & EMERGING

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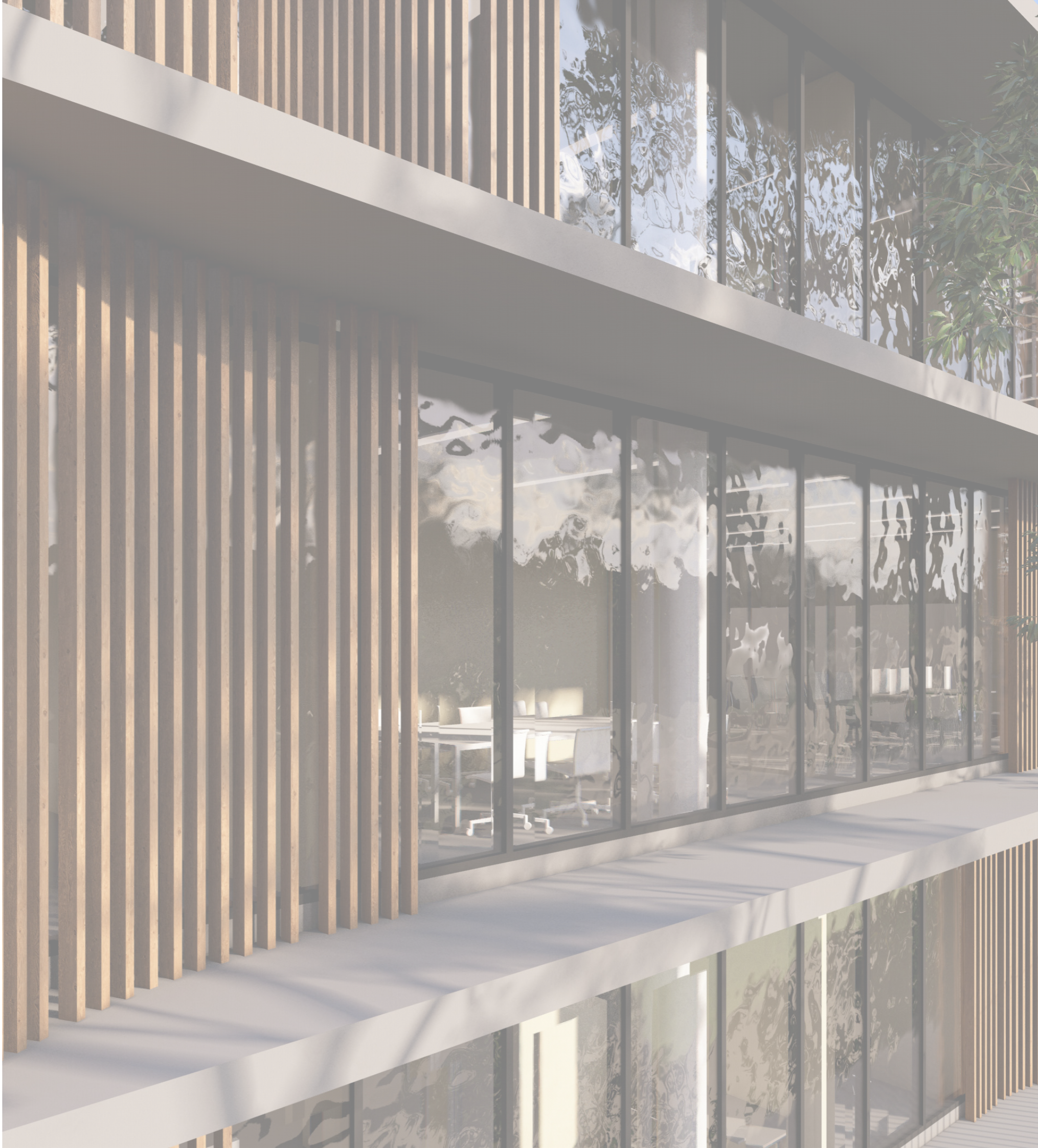
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01

Project Overview



01 Project Overview

1.1 Project Introduction

This Architectural Design Report has been prepared by HDR to accompany a State Significant Development Application (SSDA) for the construction and ongoing operation of a data centre facility at 12 Mars Road, Lane Cove West in the Lane Cove Council Local Government Area (LGA).

The site is legally described as Lot 22 in Deposited Plan 732062. The site area is 33,559m² and is zoned E4 General Industrial.

The application includes site preparation works, bulk earthworks and infrastructure, and construction of the buildings, ancillary facilities, and associated site works.

Specifically, the Project comprises the redevelopment of the site as summarised below:

- Site preparation works including demolition and removal of existing structures, tree removal and bulk earthworks.
- Staged construction and operation of three connected data centre buildings (Building A, Building B and Building C), with a maximum height of 33 metres and a combined total gross floor area (GFA) of 21,832m² comprising 10,408m² of technical data hall floor space and 1,686m² of office floor space.
- Vehicle and pedestrian access provided via Mars Road
- Building A and B will be delivered in Stage 1, comprising:
 - Lower Ground parking for 23 cars (including 1 accessible car bay), 2 motorbike bays and 12 bicycle parking spaces (6 included in the EOT facilities and 6 external spaces)
 - Lobby and training room: Approx. 167m².
 - Goodman office floor space: Approx. 778m²
 - Four storeys of technical data floor space accommodating three data halls: Approx. 10,390m²
 - 2 loading dock spaces

- Utilities including diesel generators, above-ground water tanks for industrial water , above-ground diesel storage tanks
- Business identification signage facing Mars Road
- Building C will be delivered in Stage 2 comprising:
 - Three storeys of technical data floor space accommodating two data halls: Approx. 10,390m²
 - Utilities including diesel generators, above-ground water tanks for industrial water , above-ground diesel storage tanks and an above-ground water tank for fire water .
- Landscaping across the site in accordance with the project staging, delivering a mix of native and endemic plant species, shrubs and grasses, including approx. 83 additional and 113 retained trees within a total area of approximately 7767m² deep soil and a resultant tree canopy cover of 8390m²
- Delivery of a 90MVA sub-station (via a separate application with Ausgrid) to be accommodated on site, as well as other site services, including stormwater infrastructure.

This report has been prepared to address the Secretary's Environmental Assessment Requirements (SEARs) and accompanying cover letter issued for the Project Mars Data Centre (SSD-82052708) dated 10.04.2025.

01 Project Overview

1.2 SEARs Requirement

Key issues and documentation

Clause	Issue and Assessment Requirements	Section Reference
3	<p>Design Quality</p> <ul style="list-style-type: none"> • Demonstrate how the development will achieve: Design excellence in accordance with any applicable EPI provisions. Good design in accordance with the seven objectives for good design in Better Placed. • Where required by an EPI or concept approval, demonstrate that the development has been subject to a competitive design process, or reviewed by the State Design Review Panel (SDRP) where required under the NSW SDRP: Guidelines for Project Teams. Recommendations are to be addressed prior to lodgement. 	Section 3.
4	<p>Built Form and Urban Design</p> <ul style="list-style-type: none"> • Explain and illustrate the proposed built form, including a detailed site and context analysis to justify the proposed site planning and design approach. • Demonstrate how the proposed built form (layout, height, bulk, scale, separation, setbacks, interface and articulation) addresses and responds to the context, site characteristics, streetscape and existing and future character of the locality. • Demonstrate how the building design will deliver a high-quality development, including consideration of façade design, articulation, materials, finishes, colours, any signage and integration of services. • Assess how the development complies with the relevant accessibility requirements. 	Section 4.

02

Site Analysis and Context



02 Site Analysis and Context

2.1 Regional Map

The site is located in Lane Cove West which is approximately 8 kilometers to north west of Sydney CBD.

Lane Cove West, which contains general industrial zone limited to lane cove west business park, and low density residential houses to the east and southern side of Lane Cove West precinct.

This business park contains over 250 industrial properties, ranging from small strata units to large multi-tenanted states. the residential area includes over 1100 privet dwellings, including units and houses.



02 Site Analysis and Context

2.2 Site Context

“The area which is now Lane Cove was originally inhabited by the Cam-mer-ray-gal Group of the Ku-ring-gai Aboriginal Tribe. The group, which inhabited the north shore of Port Jackson, was one of the largest in the Sydney area. The first recorded landing of a white man occurred in 1788, when Lieutenant Henry Ball crossed the Greenwich Peninsula on return from a trip to Middle Harbour. Lieutenant Ralph Clark landed not far from the entrance to the Lane Cove River on 14 February 1790.

The first written use of the name Lane Cove occurred on 2 February 1788, shortly after the arrival of the First Fleet in Port Jackson. Lieutenant William Bradley, while surveying, referred to the river into which he sailed by this name. Several possibilities for the origin of the name have been suggested, but none have been supported by written evidence. One suggestion was that it was named after Lieutenant Michael Lane, a respected cartographer, who worked with Captain James Cook in Canadian waters. The other possibility is that the name was bestowed in honour of John Lane, son of the Lord Mayor of London, and a good friend of Governor Arthur Phillip.

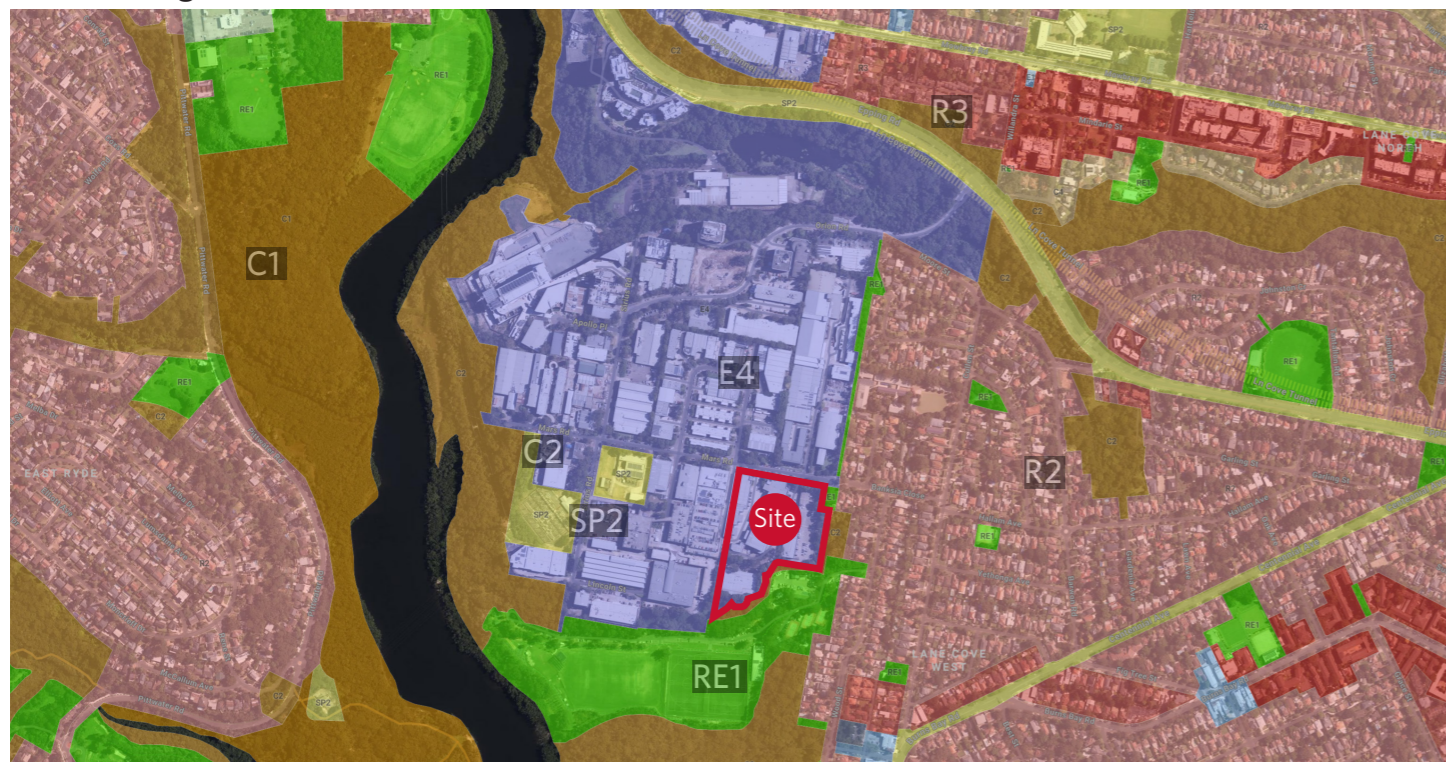
During much of the nineteenth century the name Lane Cove referred to a much larger area than the Municipality of Lane Cove. The current suburb of Lane Cove was more commonly known as Longueville”



02 Site Analysis and Context

2.3 Strategic Context

Land Zoning



E4: General Industrial

R2: Low Density Residential

R3: Medium Density Residential

SP2: Infrastructure

C1: National Parks and Nature Reserves

Height of Building



- Maximum Height Allowance: 18m
- Adjacent residential Maximum Height Allowance: 9.5m

02 Site Analysis and Context

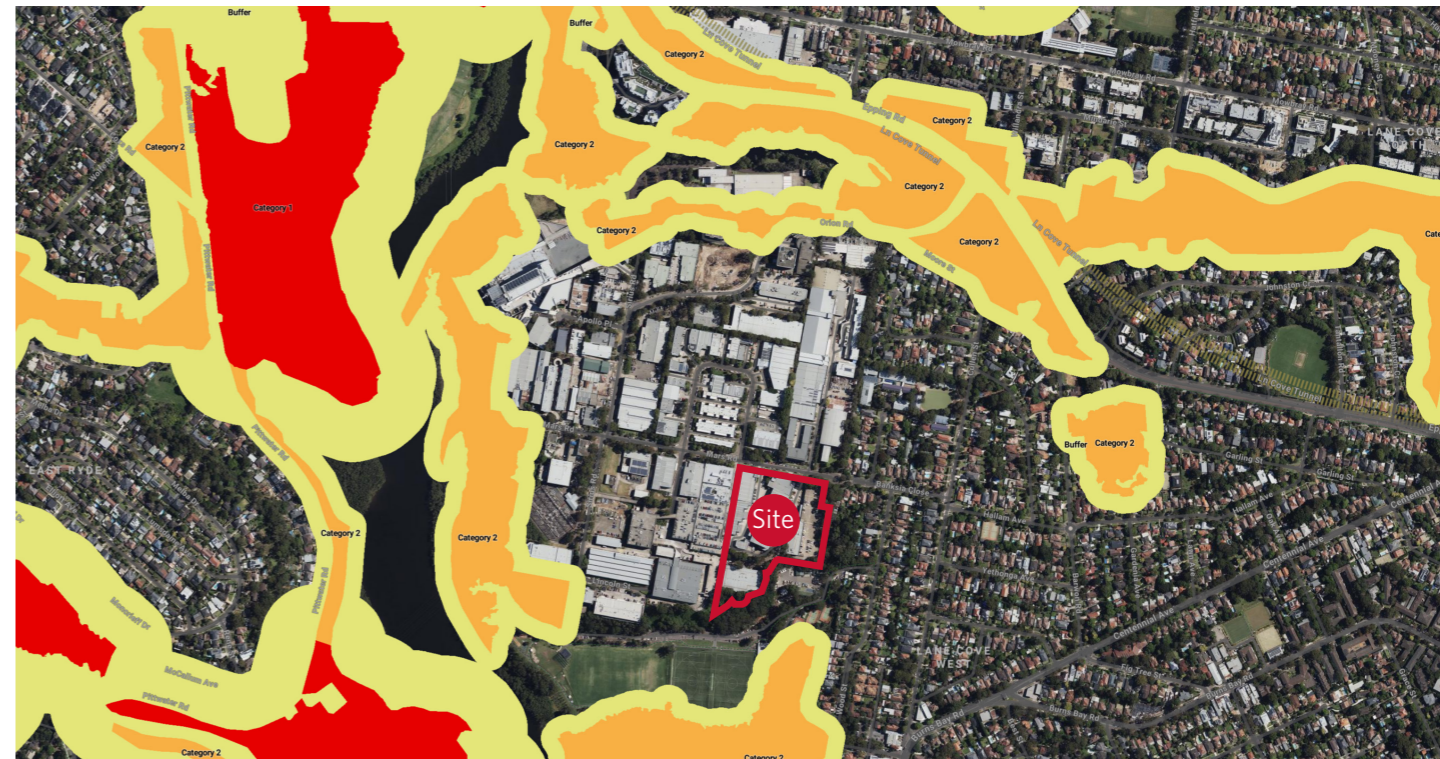
2.3 Strategic Context

Heritage



- No heritage item have been identified on the subjected site
- General (Local) - Sugarloaf Point (open space)
- Archaeological (Local)

Bush Fire Risk (RFS)



- The site is not located in Bush Fire Risk

Planning Control Summary

2.1 - Land use zoning	E4 General Industrial
2.3 - Permitted uses	Light Industry (including data centres)
4.3 - Height of building	18m
4.4 - Floor Space Ratio	1:1

02 Site Analysis and Context

2.4 Location and Site Access

- The Site is located on Lane Cove Business Park
- Vehicular access to this business park precinct is limited to one entry through Epping Rd via signalled access to Orion Rd



Legend

- Vehicular access
- - - Pedestrian access

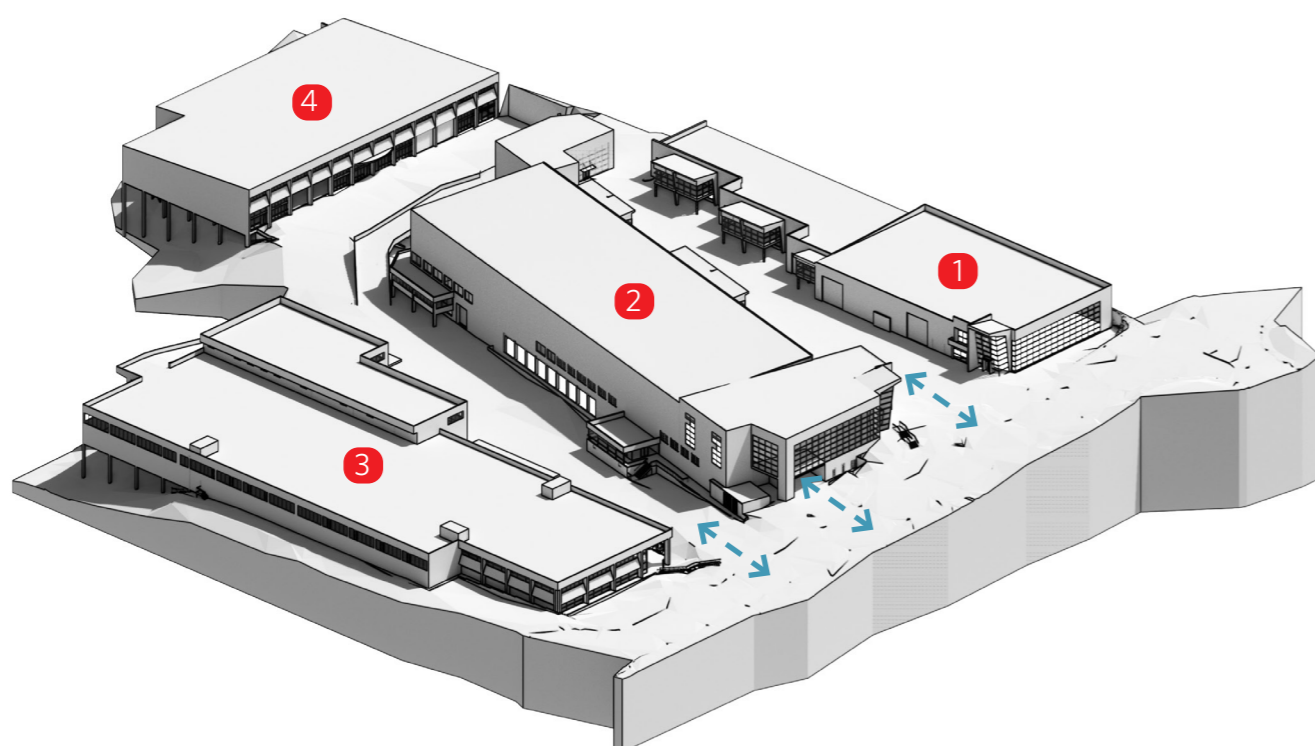
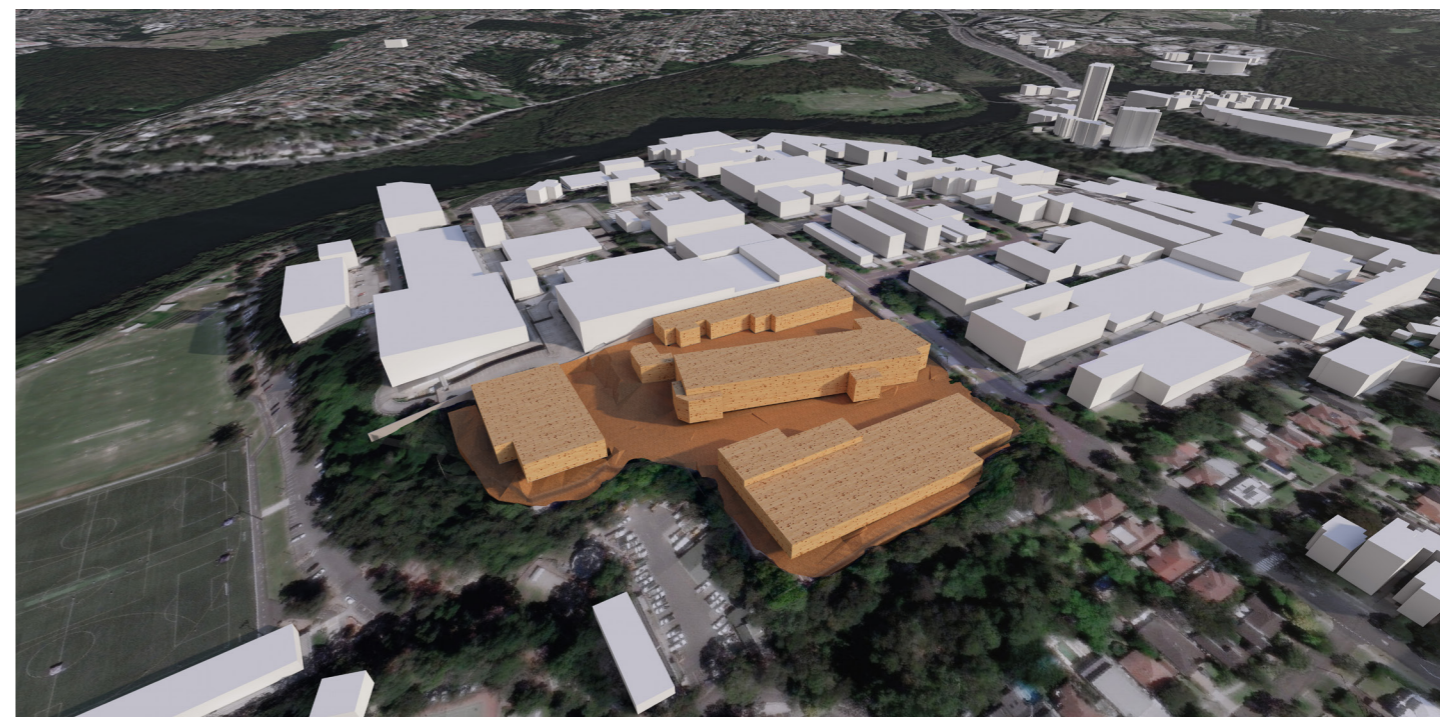
02 Site Analysis and Context

2.5 Existing Massing

The existing development on this site consists of four main buildings, with three driveway access points from Mars Road.

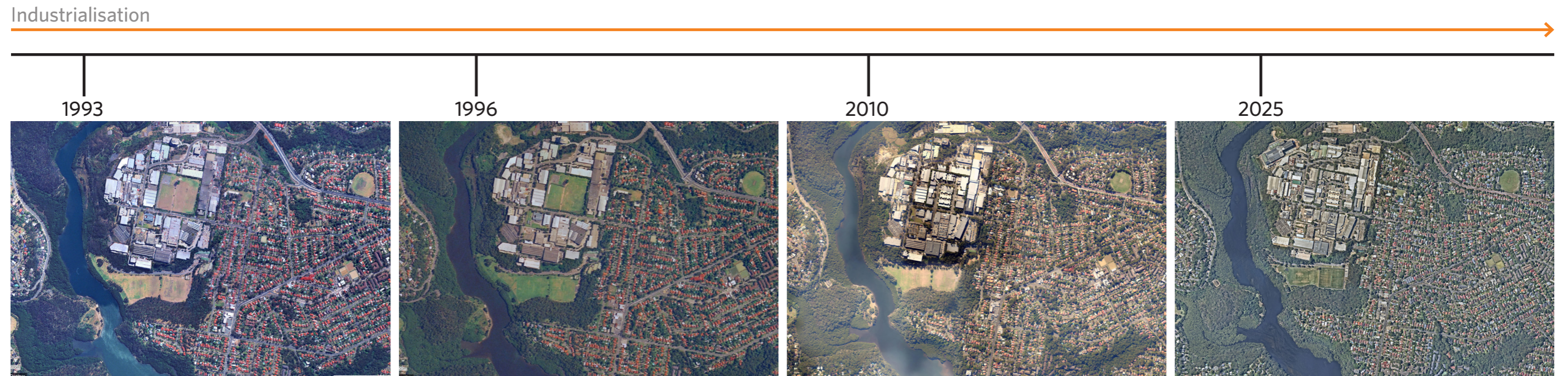
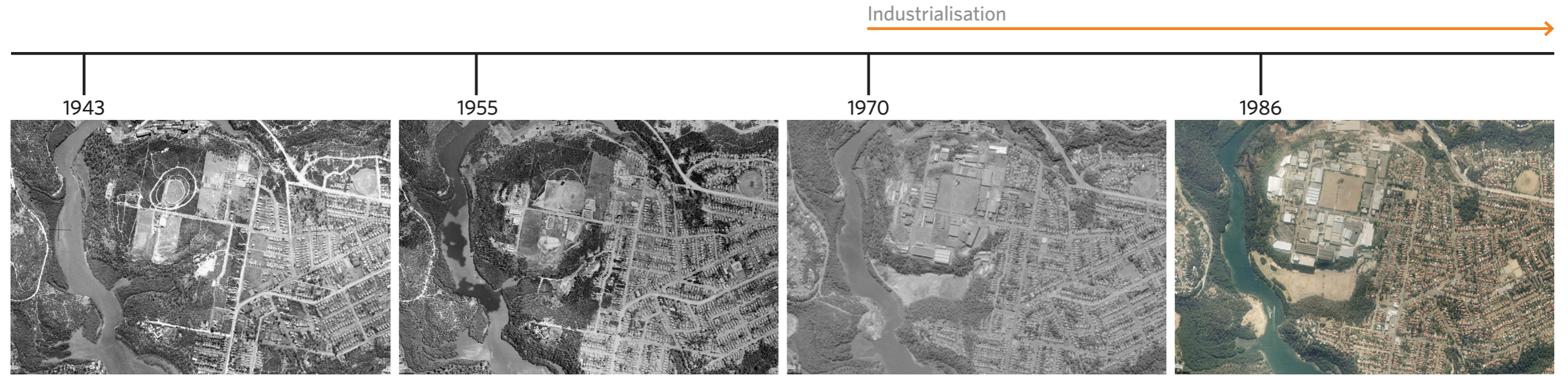
It includes ground-level car parking, as well as rooftop parking on Block 3, located along the eastern boundary next to a residential area.

Due to the site's sloping topography, with a steep fall towards the east and south, Blocks 3 and 4 are partially supported on tall columns.



02 Site Analysis and Context

2.6 Site Historic Timeline



02 Site Analysis and Context

2.7 Understanding the Place

1788



Origin of Lane Cove

"The first written use of the name 'Lane Cove' occurred on 2 February 1788, soon after the arrival of the First Fleet in Port Jackson. Lieutenant William Bradley, while surveying, referred to the river into which he sailed by this name. Several possibilities for the name have been suggested, but none have been supported by written evidence. One suggestion was that it was named after Lieutenant Michael Lane, a respected cartographer, who worked with Captain James Cook in Canadian waters. The other possibility is that the name was bestowed in honour of John Lane, son of the Lord Mayor of London, and a good friend of Governor Arthur Phillip".

1800`s



Early Land Usage

"The Lane Cove River cuts a gorge through the main Hawkesbury sandstone ridge of Sydney's north shore. Freshwater creeks further divide the ridges to form what is locally known as 'the five fingers of Lane Cove' – Greenwich, Northwood, Longueville, Riverview and Linley Point. The steep rocky slopes and ridges are alternated with small estuarine swamps and river flats, where Aboriginal people gathered seafood and Europeans cut grass for fodder and thatch. The slopes and gullies were forested with tall eucalypts, used by settlers for building and flooring. Bluegum, stringybark, blackbutt, red mahogany and turpentine were all prized by early timber-getters."

1885



Local Government

"When the municipality of North Willoughby was proclaimed in October 1865, it was divided into two wards, with the Lane Cove district forming the River Ward. In February 1885, 150 residents petitioned the Colonial Secretary, asking for River Ward to be separated from North Willoughby to allow local self-government, but this fell on deaf ears. Residents of the Lane Cove Ward again petitioned for self-government in 1893, and in February 1895 the new municipality of Lane Cove was proclaimed."

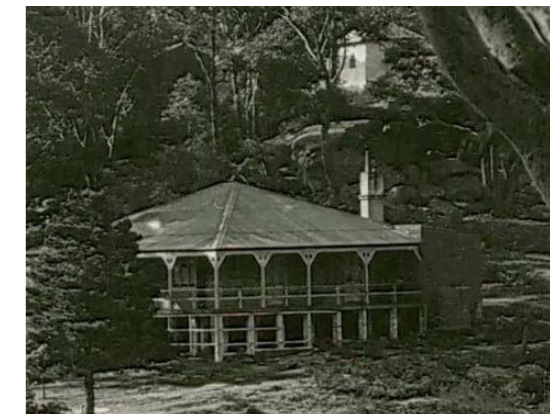
1895



Lane Cove River

"In 1885 the first bridge crossing the Lane Cove River was opened. Named the Fig Tree Bridge, it linked Linley Point to Hunters Hill. It was an opening bridge, built of iron trusses. The first Gladesville and Iron Cove bridges also opened early in the 1880s and the combination of the three bridges provided the first road link from Lane Cove and the north shore to Sydney and districts south of the harbour."

1960



Development

"In the years following World War II, rapid changes and increased residential and industrial development occurred. The first block of flats was built in 1962 and by 1979 nearly 200 blocks of flats had been built along the main roads around the Lane Cove village. The residential area of Lane Cove has retained a single-house character into the twenty-first century."

02 Site Analysis and Context

2.8 Site Background and Traditional Owners

Indigenous sites of interest

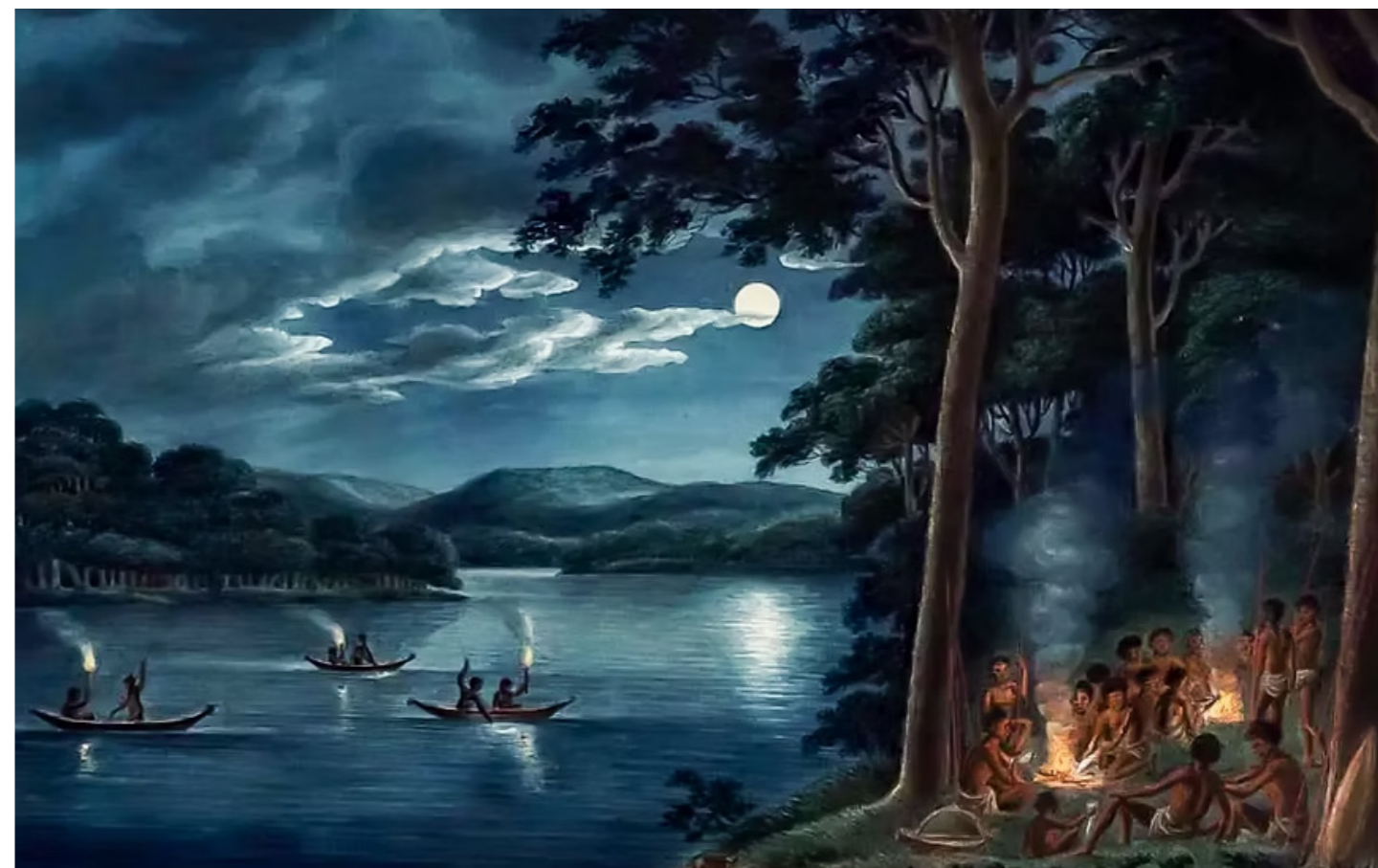
Evidence of Aboriginal peoples around Lane Cove and other sites of interest are scattered all over greater Sydney - testament to an adaptable, complex culture that survived - indeed thrived - for tens of thousands of years in harsh and often life-threatening rugged terrain.

For years undiscovered, or kept secret to deter vandals, many of them are now marked on maps for curious explorers to visit and appreciate.

These include: camp sites, social areas, shell middens, scarred trees (from bark removed to make canoes or coolamon carrying bowls), carved trees (spiritual markings, often totemic or adjacent to a grave), ceremonial grounds (now known as Bora sites, taken from the Kamilaroi word for 'ritual'), rock engravings (notifying important fishing and hunting areas, tribal markings or spiritual symbols), fish traps (stones placed on tidal reaches where fish swim in at high tide but cannot swim out when the tide recedes), burial grounds, grinding grooves (for tool sharpening, often at the edge of streams), quarries, rock shelters, ochre pits (for digestive medicine, sunburn protection and treatment of insect bites), seed grinding stones (flat stones worn into bowls for grinding acacia, grass, kurrajong and wattle seeds to flour for dampers), scattered artefacts, paintings and stencils.

An estimated 6,000 Indigenous engravings and assorted artistic pieces were once spread throughout greater Sydney. However, through a combination of vandalism and ignorance, many have been destroyed as industry, infrastructure and houses were built.

Where the Aboriginal peoples around Lane Cove once had designated custodians to re-groove ancient and often totemic carvings in rock faces, with the decimation of the Aboriginal peoples, those traditions have vanished over the last two centuries.



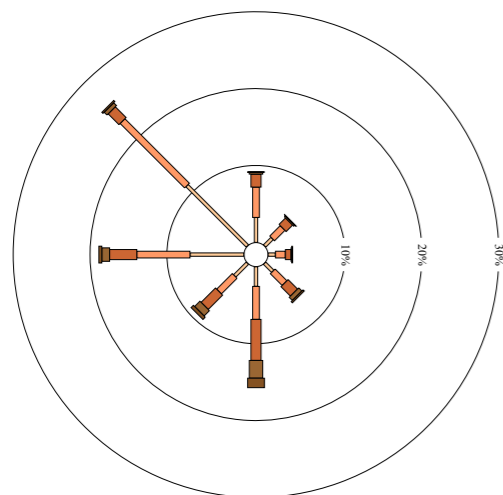
02 Site Analysis and Context

2.9 Solar and Wind

- The site is oriented from north to south, which means the buildings are likely to receive more sunlight from the east and west than from the north and south.
- The prevailing wind direction is from the northwest.



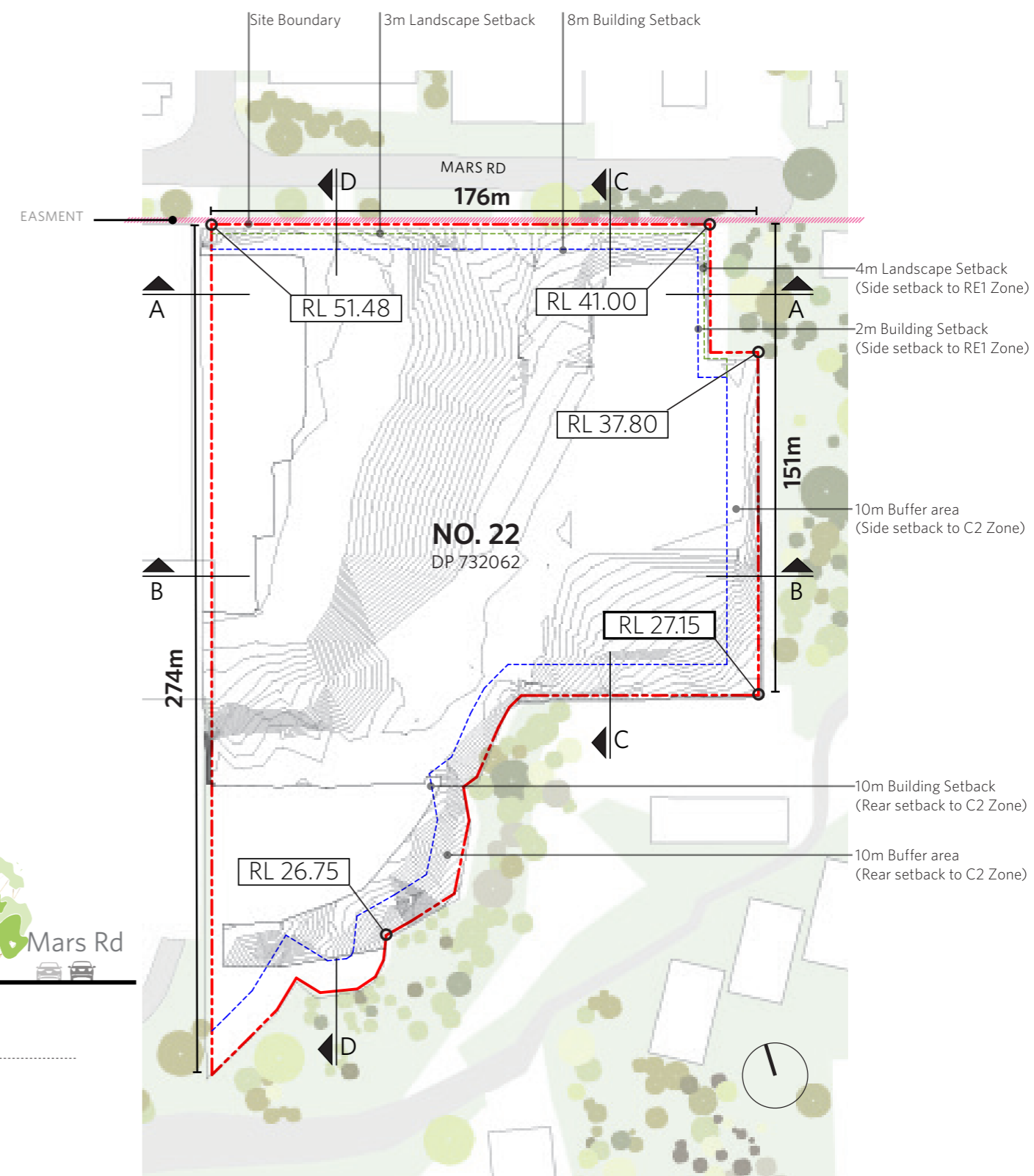
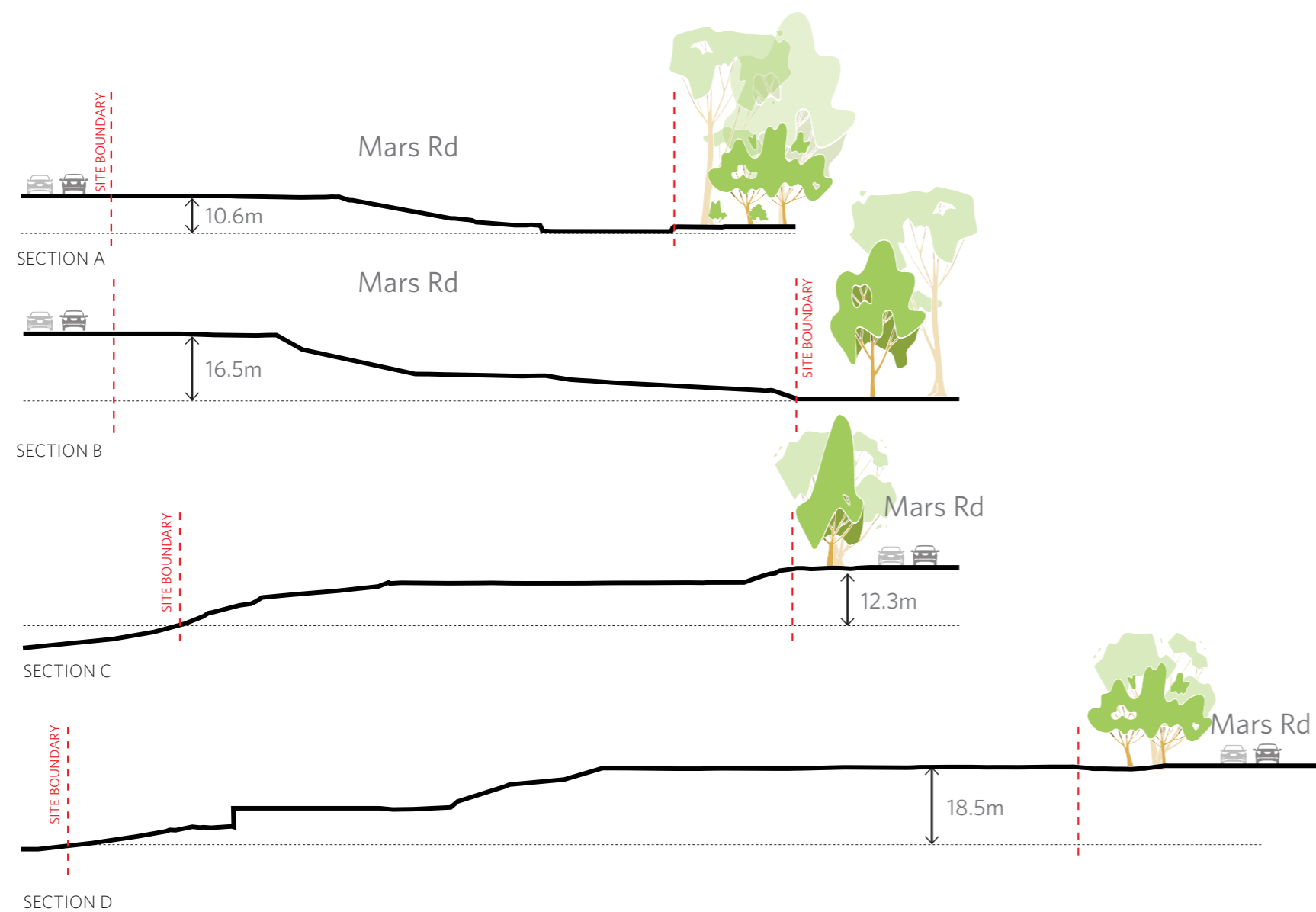
9 am
28871 Total Observations
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02 Site Analysis and Context

2.10 Site Topography and Site Constraints

The site slopes down in two directions—towards the east and south—with significant level changes, as shown in the section diagrams below.



02 Site Analysis and Context

2.11 Site Character

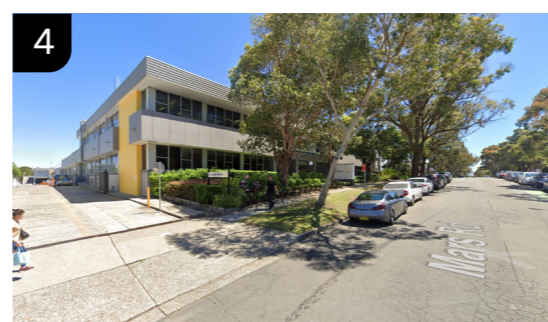
Lane Cove West's General Industrial zone has a distinctly functional and utilitarian character. The area is predominantly made up of low- to mid-rise warehouse-style buildings, often featuring large footprints, simple architectural forms, and minimal ornamentation.

The streetscape has a practical, no-frills appearance, with wide driveways, service yards, and loading docks commonly visible from the street. Landscaping is typically limited, though some newer developments include modest green buffers or planted verges to soften the industrial setting.

Overall, the look and feel of the area reflect its focus on light industrial, logistics, and commercial operations, with a strong emphasis on efficiency and accessibility.



Project Mars — Goodman



02 Site Analysis

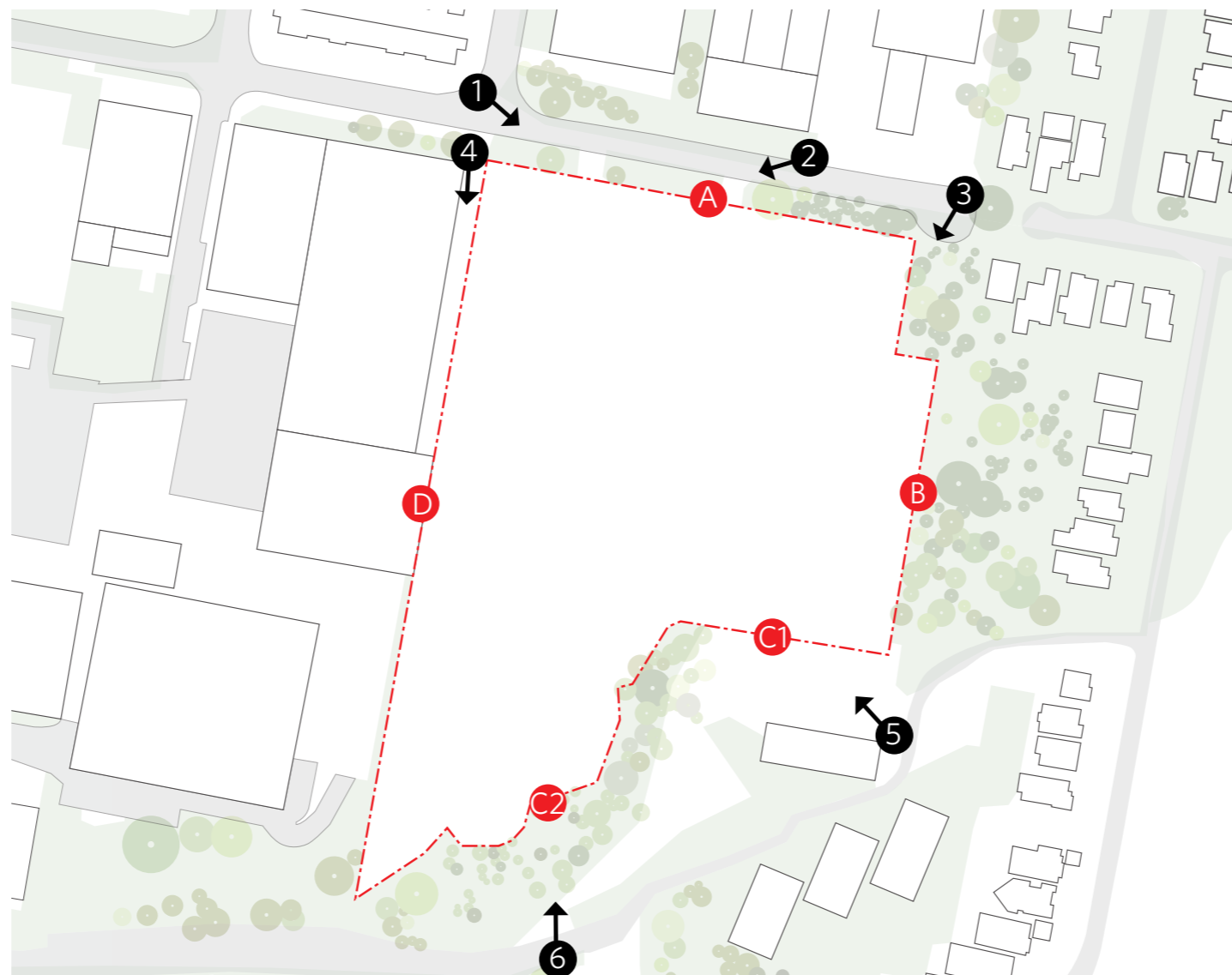
2.12 Site Views

A-North: This portion of the site is prominently exposed to Mars Road and will serve as the primary frontage, presenting the main architectural expression of the development.

B-East: A landscaped buffer zone with dense vegetation separates the site from the adjoining residential area, offering effective visual screening and significantly mitigating potential visual impact on nearby dwellings.

C1,C2 - South: The southern boundary is largely obscured by established tree cover and mature vegetation, contributing to effective natural screening. However, the D2 segment is comparatively open, with limited vegetative cover, resulting in greater visibility into this part of the site.

D-West: Oriented toward adjacent industrial properties, this elevation will have minimal visibility due to the screening effect provided by existing neighbouring structures.



03

Built Form and Urban Design



03 Built Form and Urban Design

3.1 Lane Cove Design Guidelines

Lane Cove Development Control Plan 2009 (amended Sep 2023)

Clause	Requirement	Response Section
Section 6.3	Orientation of building and facade design of all developments should capture and manage solar access, natural ventilation and breezes into the building	Section 6.1
Section 8.1	All development is to face the street and/or public open spaces and provide uses at ground level that provide activity.	Section 4.2
Section E.4	Industrial sites are to be designed to locate offices addressing and activating the street/s where possible. The warehouse/factory functions as well as car parking, manoeuvring areas, loading and unloading facilities are to be located within the site	Section 4.4
Section E.4	The total gross floor area used for ancillary office uses shall not exceed 49% for any one development.	Refer to Architectural Drawings - GFA
Section E.4	Cycle parking and pedestrian access close to covered access areas is encouraged	Section 4.2
Section E.5	<p>Minimum Building Setbacks:</p> <p>Front setback: 8m</p> <p>Side and rear (adjoining industrial zone): 0m (where deep soil/landscaping provisions met elsewhere on site; fire regulations are met and merit impacts deemed acceptable in relation to adjoining properties)</p> <p>Side and rear (adjoining non-industrial uses): 4m</p> <p>Landscaping strip (which forms part of building setback):</p> <p>Front: 3m</p> <p>Side and rear (adjoining non-industrial): 2m</p>	Section 3.2 and 4.2
Section E.6	All development is to relate to the existing topography of the land at the time of the adoption of this DCP	Section 3.2

03 Built Form and Urban Design

3.1 Lane Cove Design Guidelines

Lane Cove Development Control Plan 2009 (amended Sep 2023)

Clause	Requirement	Response Section
Section E.6	Excavation for major development is to be contained within the footprint of the development and hard surfaces	Section 3.2
Section E.6	Uses at ground level are to respond to the slope of the street by stepping frontages and entries to follow the slope.	Section 3.2
Section E.7	Through careful site arrangements new building works should: Address the street with any non-industrial aspects (i.e.office section) of the development. Avoid long blank walls of warehouse units facing the street or public domain and long unbroken roof lines. If unavoidable, use of single material and colour should be avoided. Rear boundary walls are to be treated aesthetically. Provide regular articulation to the façade or division of massing	Section 4.4
Section E.7	New buildings are to be designed to: Express the structure of the building through creative architecture and minimise use of reflective glass or large blocks of one material. Visually reinforce entrances, office components and stair wells of units to create rhythm on long facades and a reduction of perceived scale. Strongly express structural bays and bracing. Provide variation of unit design within industrial unit developments. Introduce solid surfaces, with a mix of materials; incorporate horizontal and vertical modulation including windows in appropriate proportions and configurations. Address all streets to which it presents	Section 05

03 Built Form and Urban Design

3.1 Lane Cove Design Guidelines

Lane Cove Development Control Plan 2009 (amended Sep 2023)

Clause	Requirement	Response Section
Section E.7	All rooftop or exposed structures including lift motor rooms, plant rooms, etc., together with air conditioning, ventilation and exhaust systems, are to be integrated with the building design in	Section 5.1
Section E.8	Parking is to be integrated into the site planning and must be visually mitigated by minimum 3m landscape strip along the frontage and other high quality landscaping	Section 4.6
Section E.8	Separation is to be provided between service areas (i.e. loading and unloading areas) and parking. Service areas to be located and designed to facilitate convenient and safe usage	Section 4.6
Section E.8	Access/Driveways - Vehicular movements to and from the site should be designed to reduce potential conflict with street traffic and pedestrians	Section 4.6
Section E.8	All vehicles should enter and leave the site in a forward direction	Refer to traffic report
Section E.8	Preferably, off-street parking is to be provided behind or at the side of buildings and away from street frontages	Section 4.6
Section E.8	Loading docks should be positioned so they do not interfere with visitor and employee parking spaces and to ensure delivery	Section 4.6

03 Built Form and Urban Design

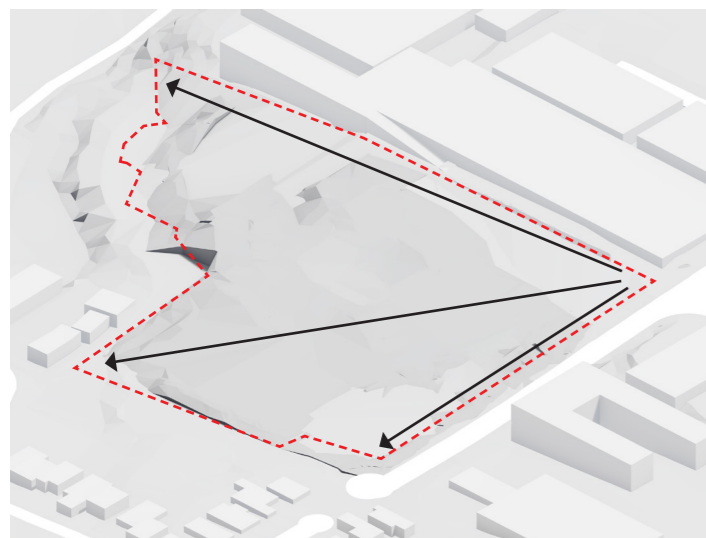
3.1 Lane Cove Design Guidelines

Lane Cove Development Control Plan 2009 (amended Sep 2023)

Clause	Requirement	Response Section
Section E.10	All fencing along street frontage is required to be permeable metal palisade or picket finished in a suitable colour - dark colours are preferable. Maximum height allowed is 1.2 metres on street frontages	Refer to Architectural Elevations and Finishes Schedule
Section E.10	Taller fencing should be behind the building line for security. However, security fencing may be considered forward of the building line (behind the front landscape strip) if required for specific industrial uses	Section 4.5
Section E.10	Chain wire is permitted only on the side and rear boundaries adjoining industrial developments, commencing at the front building alignment. All chain wire fencing is required to be black PVC coated	Refer to Architectural Elevations and Finishes Schedule
Section N.3	Signage above ground floor level is appropriate for industrial zones where it is business identification signage, with a maximum of one sign per building permitted above ground floor level	Refer to Architectural Elevations

03 Built Form and Urban Design

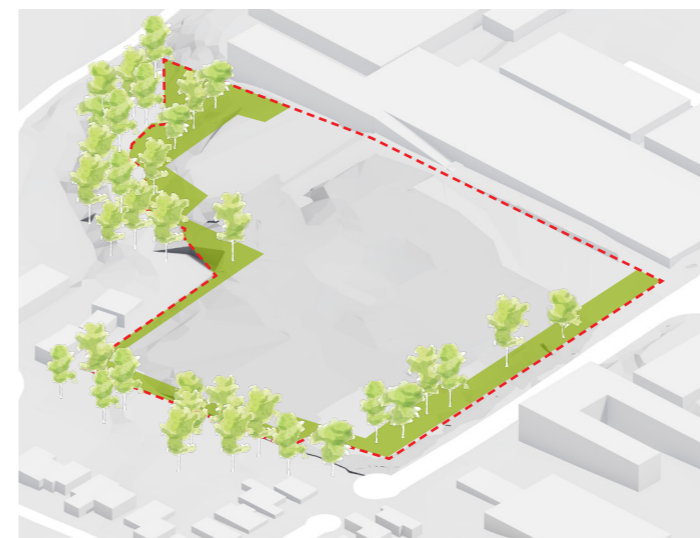
3.2 Urban Response



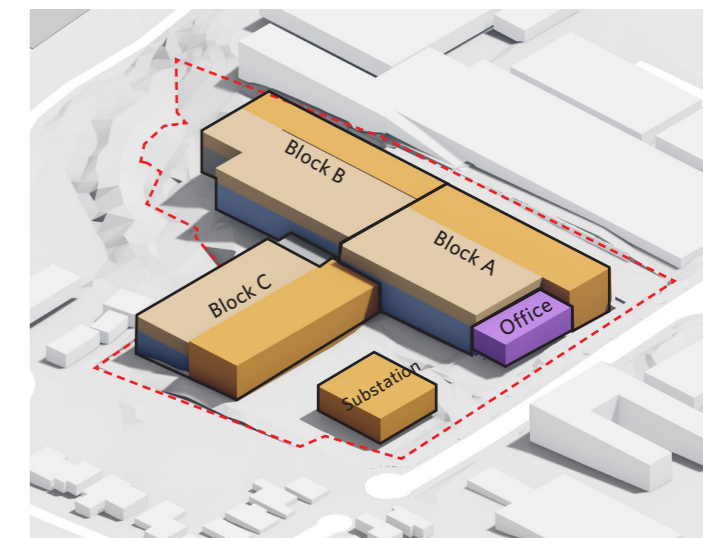
- The site topography and Connection with Country



- A wide landscaped setback on the northern side creates a spacious green edge
- A green buffer along the eastern boundary provides a natural visual screen.
- A generous setback on the southern side helps preserve much of the site's existing rich vegetation."



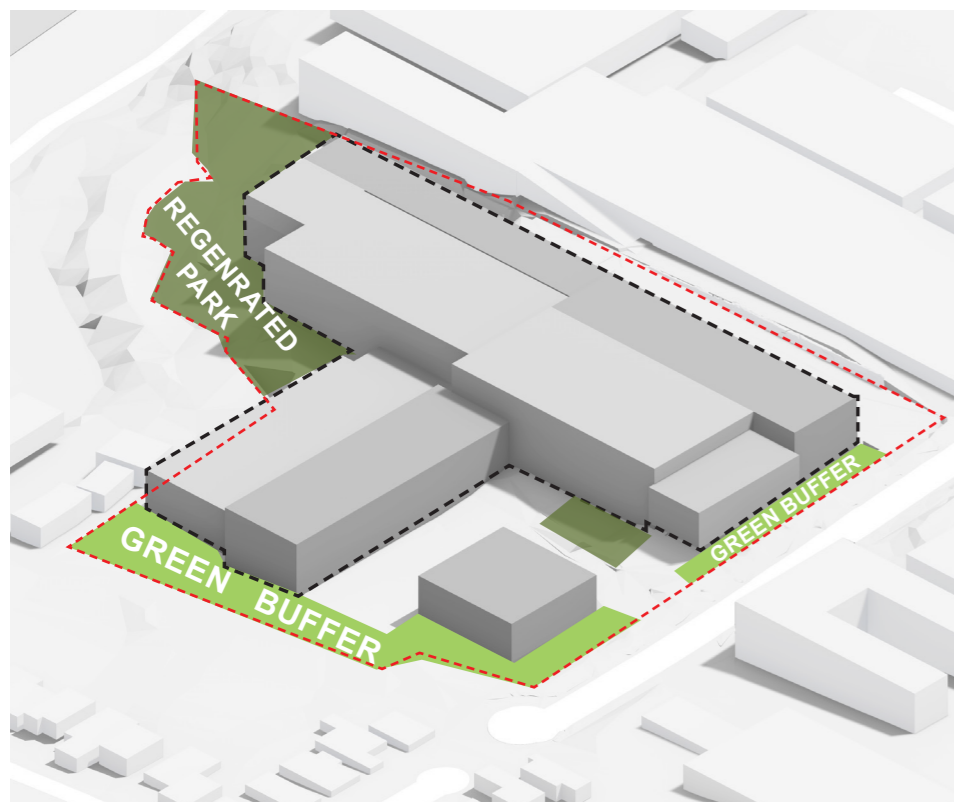
- Layers of vegetation create a dense visual screen along three sides of the site



- The building mass is broken down into smaller elements to reduce its overall bulk and visual impact
- Smaller building blocks are designed to follow the natural slope of the site

03 Built Form and Urban Design

3.2 Urban Response

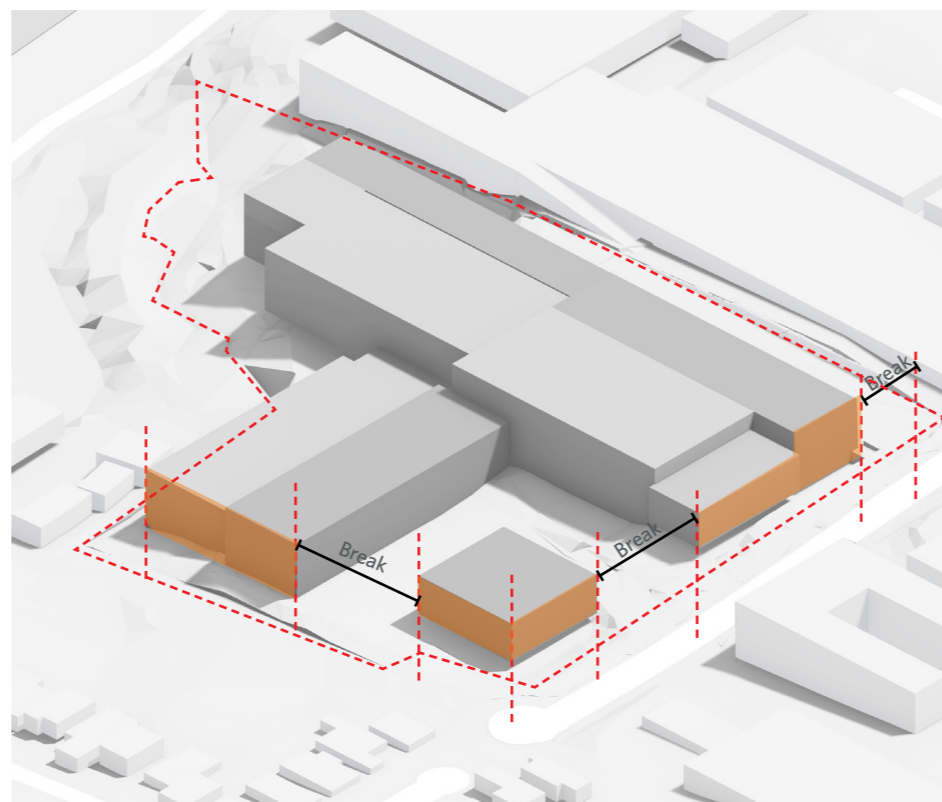


The Green Buffer

Emphasis has been placed on the quality and generosity of landscaping and the setback from the boundary. To the South East, the proposed building envelope has been pulled away from the adjacent residential spaces to allow for a green buffer and enhanced urban amenity.

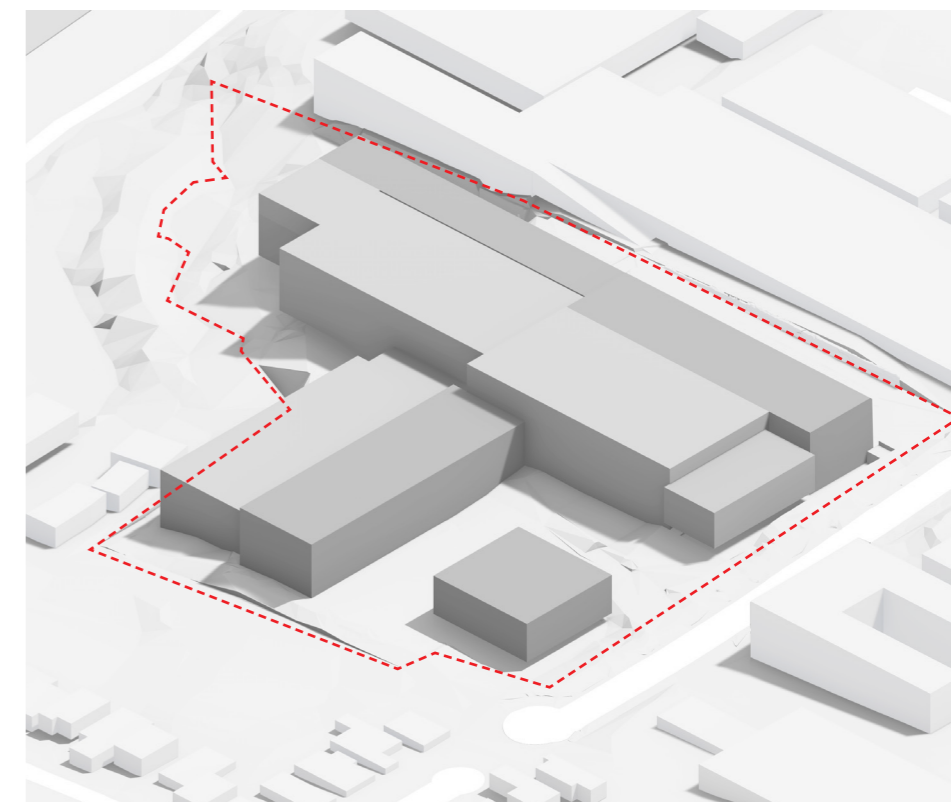
Mature existing trees have been retained extensively towards the south and will be complemented by new plantings to create a green edge and to enhance the quality, visual amenity and regeneration towards the parkland.

The landscape design extends along Mars Road and in front of the office building, integrating biophilic principles to enhance the experience of building occupants while visually anchoring the development to the surrounding landscape.



Mass Articulation

To avoid long, uninterrupted elevations, the form is articulated into three distinct data hall "boxes," each arranged perpendicular to the others, further reducing visual scale and enhancing the building's integration with its surroundings.



Submerging of the Mass

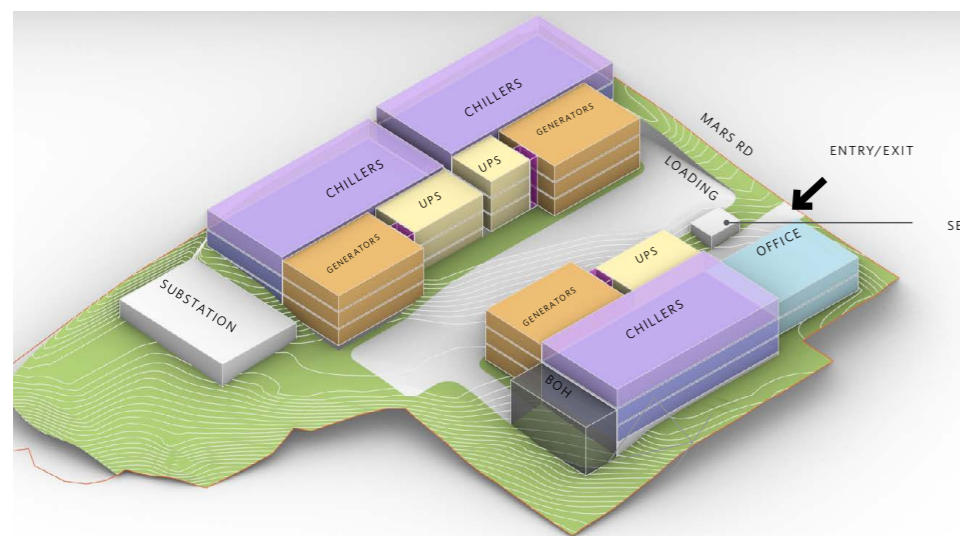
The overall massing of the data halls has been carefully broken down to create a more considered urban scale and a finer-grained architectural response.

Key design strategies include embedding the building into the site's natural topography, effectively concealing much of its height and bulk from key view corridors.

03 Built Form and Urban Design

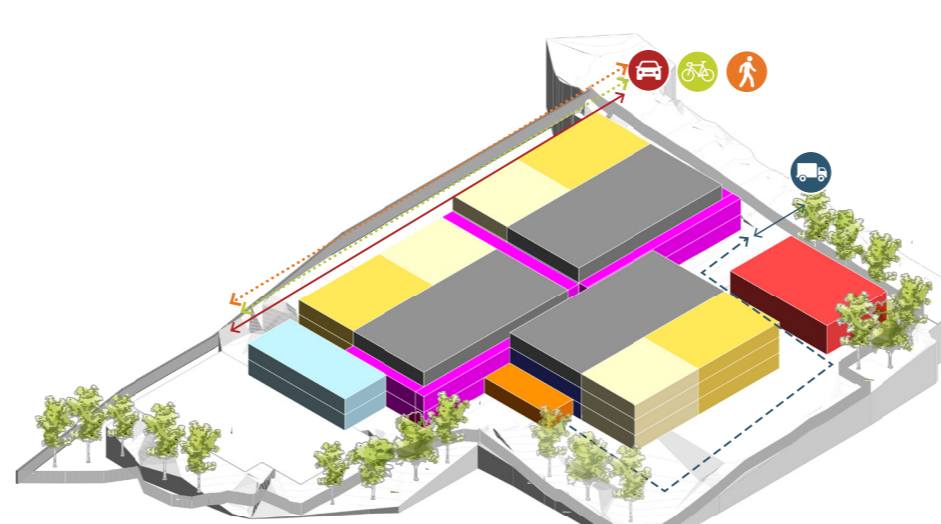
3.3 Alternative Investigated Master Planning

Option A



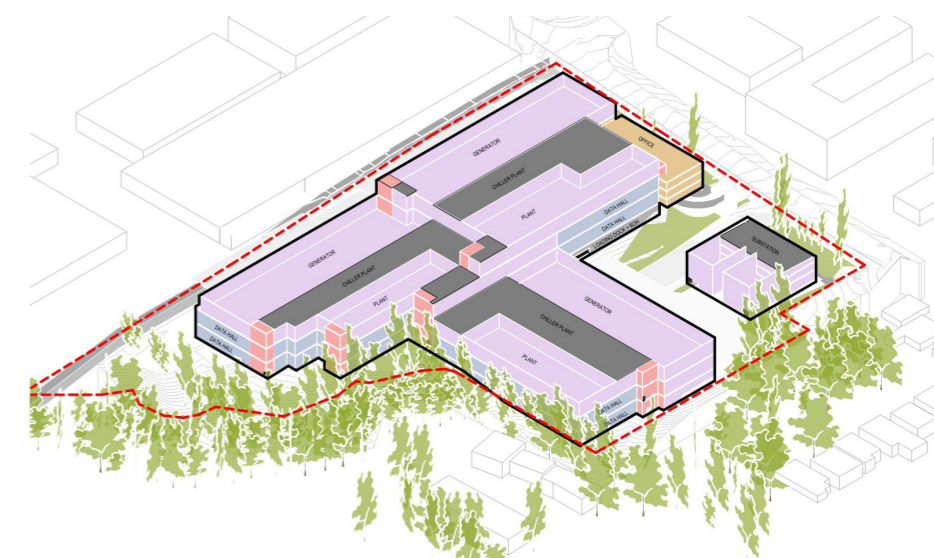
- Centralised access is provided for both the loading dock and parking area
- The substation is located at the southern end of the site
- An office block is located along Mars Street and is connected to one of the data hall blocks.

Option B



- Substation at Mars rd
- Attached 3 data hall blocks
- Office block located at the southern part of the site

Option C (Preferred)



- Substation at Mars rd
- Attached 3 data hall blocks
- Office block located at the southern part of the site

04

The Proposal



04 The Proposal

4.1 Design Statement

Good Design has been placed at the heart of the proposal, from massing and site configuration down to detailed material resolution.

The proposal has been developed to:

- be consistent with better placed (GANSW) guidelines
- be appropriate in scale and massing
- be respectful of the adjoining streetscape, neighbors and parkland
- provide activation to primary frontages
- provide enhanced landscape zones along Mars Road and regenerated landscape towards the souther parklands
- have safe, legible and direct access and movement
- be efficient (both functionally and with respect to material useage and servicing requirements)
- be sustainable
- provide a safe, desirable and comfortable workplace
- provide a considered, appropriate and high quality architectural outcome that is respectful of its place, achieved through articulation of distinct building elements, careful material selection and considered detailing.

Each of these points is described in more detail in this section of the report.



04 The Proposal

4.2 The Design Principles

At its core, the project's built form is defined by a T-shaped data hall building comprising three interconnected blocks, meticulously arranged to optimise space utilisation and operational efficiency. A dynamic office component is strategically located to the northeast, activating the Mars Road frontage and creating a more engaged public address.

DATA HALLS

The data halls rise to a maximum height of 25 metres, accommodating five strategically segmented halls across several levels. This vertical arrangement enhances spatial efficiency, provides a logical flow of operations, and supports ease of access, maintenance, and future scalability.

The T-shaped configuration allows for a staged delivery approach while breaking down the overall scale of the building. The design responds sensitively to the site's natural topography, with the massing placed where the land falls away, effectively reducing the visual impact along Mars Road. Cut and fill strategies have been carefully balanced to conceal much of the building mass while respecting existing site conditions and integrating with the retained structures.

OFFICE BUILDING

Integral to the design narrative is the early delivery of the office building within Stage 1. The office component actively addresses Mars Road, with the majority of the façade orientated towards the public domain. The office is elevated to align workplace levels with the surrounding ground plane, enabling end-of-trip (EOT) facilities to be efficiently located at the main entry level on the lower ground floor.

The building's elevation also makes effective use of the site's natural topography to screen car parking areas from view and to preserve the mature lemon-scented gum tree at the northern boundary.

INTEGRATION WITH LANDSCAPE AND PLACE

The project's design approach extends beyond functional requirements, embracing principles of sustainability, regeneration, and connection to place. A generously landscaped garden adjacent to the office entry creates a breakout space for building occupants, reflecting the local cultural landscape and drawing on Country concepts (refer to Landscape Report for further details). This regenerated landscape supports both environmental stewardship and cultural recognition within the site.



04 The Proposal

4.3 Design Response to GANSW

The Better Placed policy establishes guidelines to achieve good design within the built environment in New South Wales.

Good Design creates buildings that are efficient, user friendly, enjoyable and provide additional value to the community and local context.

The Government Architect New South Wales (GANSW) defines a well designed built environment as being: healthy, responsive, integrated, equitable and resilient.

The Better Placed policy defines seven objectives for good design:

1. Better Fit: Contextual, local and of its place
2. Better Performance: Sustainable, adaptable and durable
3. Better for Community: inclusive, connected and diverse
4. Better for people: safe, comfortable and liveable
5. Better working: Functional, efficient and fit for purpose
6. Better Value: creating and adding value
7. Better look and feel: engaging, inviting and attractive



Better Fit: Contextual, local and of its place

- The proposal has been designed to fit with, and enhance, the overall quality of the Lane Cove West business Park Zone (E4) Area in which it is located.
- In developing the proposal, the design team investigated in detail the distinctive character of the site and local context. These investigations included both natural and built features, social, economic and environmental conditions.
- The proposed design responds intelligently and sensitively to these factors and makes a positive contribution to the streetscape, neighbourhood and neighbouring sites. In scale and height.
- The overall bulk and scale of the proposal has been broken down to create a finer grained architectural response that addresses and activates the primary adjoining streets and that minimises impacts such as overshadowing.
- The inclusion of green site edges to around the site will contribute to the quality and amenity of the immediate context and public domain.



Better Performance: Sustainable, adaptable and durable

- The proposal aligns closely with the Better Placed policy's "Better Performance" objective, emphasizing sustainability, adaptability, and durability. By carefully and holistically integrating these principles, the facility balances long-term viability and durability with lowered environmental impact.
- Sustainable features like efficient energy systems and resource management reduce operational costs and carbon footprint.
- Floor plates have been designed to be adaptable, with a regular and large span structural grid allowing the potential for future floorplate reconfiguration and adaption.
- The proposal has been designed to be highly durable and resilient through the selection of long lasting and easily maintained building materials (both in ground and above ground), and through the specification of appropriate plant and equipment.
- The civil and site works have been designed to achieve a high degree of environmental resiliency with a focus on flooding and storm water mitigation as well as minimising impact on site.



Better for community: inclusive, connected and diverse

- The proposal provides an essential social and community infrastructure asset that facilitates (digitally) the core ideas of social and community connection and inclusivity.
- The proposal will create employment opportunities.
- Through the careful and deliberate location of the office building at the front, facing Mars Rd, the proposal will help to activate and uplift the quality of the adjoining street.
- The proposed landscape treatments along Mars Rd will likewise enhance the streetscapes and public domain, and soften the overall scale of the development.

04 The Proposal

4.3 Design Response to GANSW



Better for People: Safe, comfortable and livable

- The proposal has been designed with a clear focus on comfort and safety, both operationally and within the workplace.
- Site access (both vehicular and pedestrian) is clear and direct, with intentional separation between the movement of people and goods / services.
- The office building has been designed to provide high quality working accommodation. This includes excellent access to daylight and outlook, access to the outside (via uppermost level external terrace), and clear internal wayfinding and movement. EOT facilities have been provided and will contribute to the quality of the occupant and user experience. The building entrance is easily accessible.
- The office building location will also contribute to the passive surveillance of the bounding streets, which will assist with broader community safety and security.
- With in the data halls and supporting facilities circulation and access is direct and of generous width, designed with efficiency, visibility and safety as core priorities.



Better Working: Functional, efficient and fit for purpose

- All aspects of the proposal have been designed to be highly functional, efficient and fit for purpose. These principles are embedded at both the site level (movement, access, servicing) through to the planning of internal spaces (both office areas and data halls) and then also to the design of building services and ESD initiatives.
- Whilst the design of the facility has been strongly informed by these core considerations of functional and efficient design, these drivers have been carefully balanced against the other six better placed principles. This ensures that the proposal can contribute to its place and local community in ways beyond that of a typical data centre box that has been engineered for functionality alone.



Better Value: Creating and adding value

- The proposal for a significant and high quality data centre with joined commercial space will provide clear employment and economic benefit, both during the construction of the facility and over its operational lifetime.
- Value will also be realised through the overall quality of the proposal - through the manner in which the proposal engages and activates the public realm and contributes architecturally to it's immediate and local context.

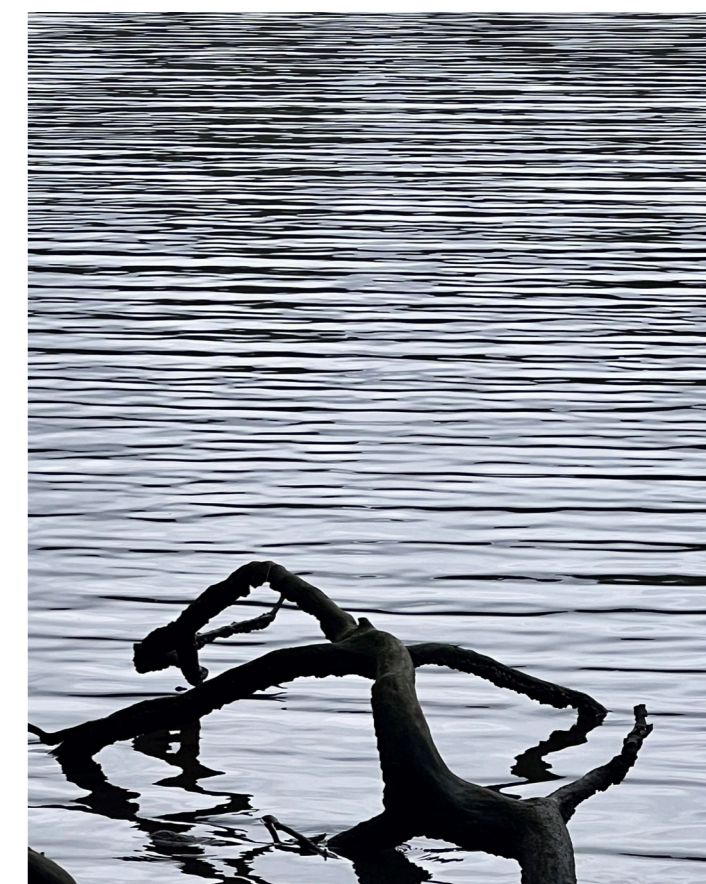
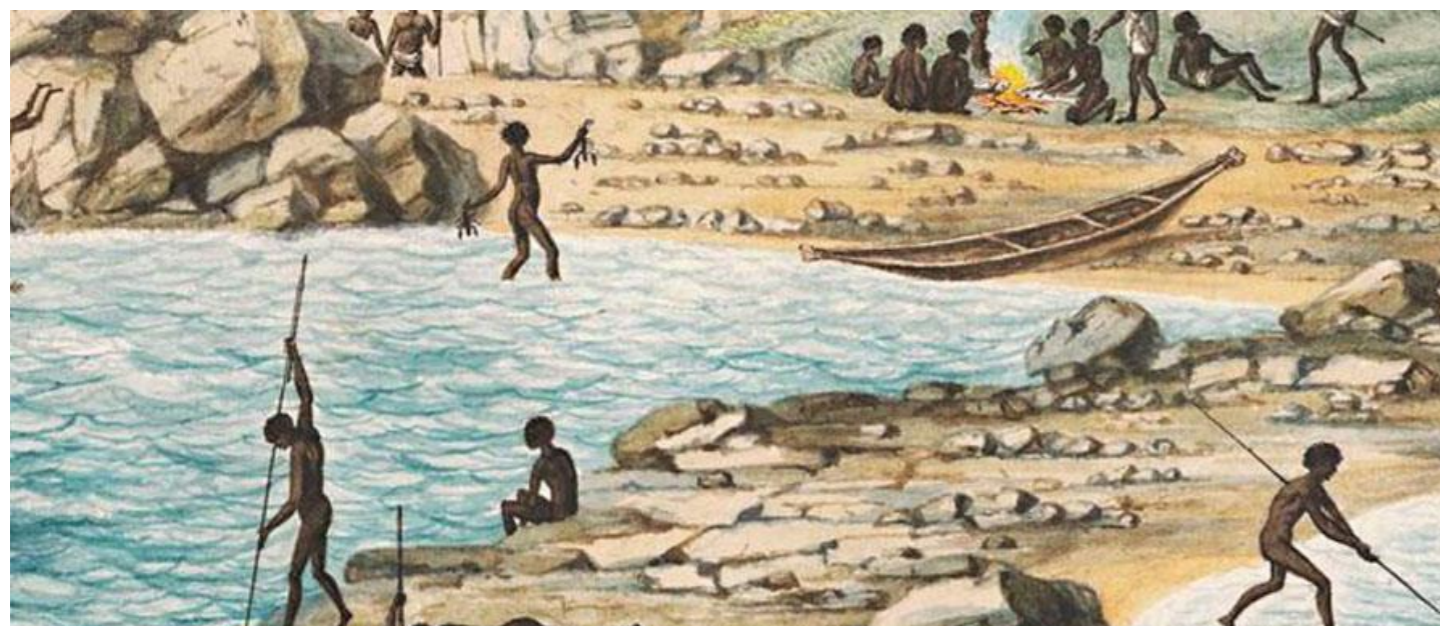


Better Look and Feel: Engaging, inviting and attractive

- The proposal provides a high quality architectural response that is reflective of the buildings primary purpose whilst also been carefully crafted and articulated to contribute to site and context.
- The proposal adopts a fine grain architectural language the distinctly expresses individual building components. This approach to massing reduces the perceived scale of the development and introduces a porosity and modulation to the overall development when observed from the bounding streets and public domain.
- The overall volume of the development has been set well back from primary frontages (over and above the requirements of the DCP), with new landscape zones introduces to soften and enhance the quality of adjoining streetscapes.
- Material selections and detailing are of high quality, to promote the high-tech precinct, and engaging design has been accommodated to data hall and generator blocks.
- The office building facade deeply articulated primary frontage that is environmentally performative as well as visually engaging.

04 The Proposal

4.4 Designing with Cameraygal

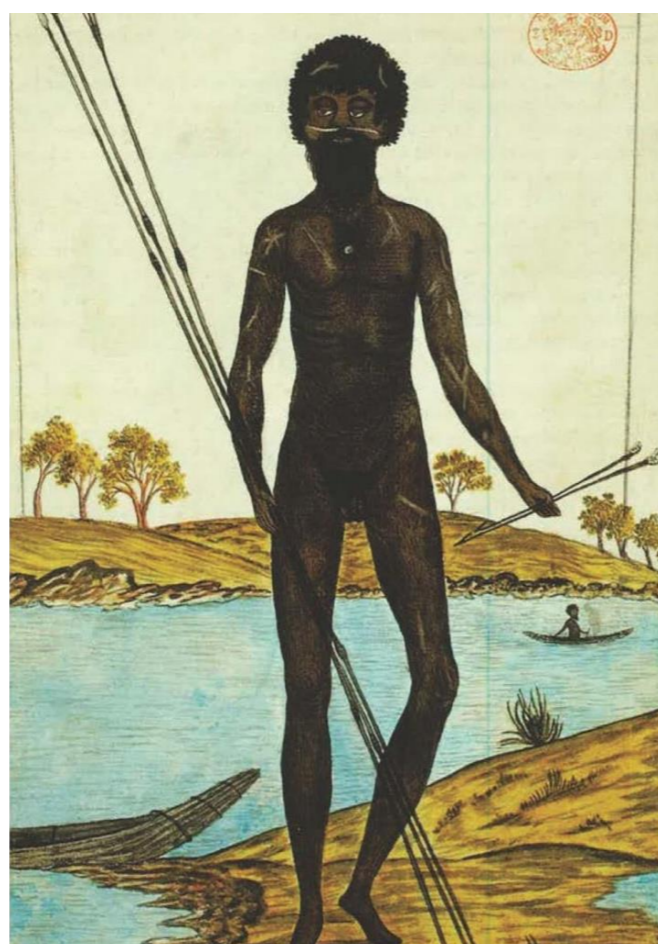


Connection

Turrumburra has long been a place of sustenance and gathering for the Cammeraygal people. Stone fish traps, carefully constructed along the river, channelled seasonal mullet migrations, guided by ecological markers such as the bloom of the golden wattle. Middens of shell, charcoal and bone remain as evidence of millennia of cultural practice, knowledge-sharing and stewardship of Country.

The proposed data centre draws a modern parallel:

gathering, storing, and directing flows of information, attuned to contemporary patterns of connection and exchange. Like the fish traps, it is a purposeful structure that responds to its environment, integrating sustainability and cultural awareness as fundamental principles of its design.

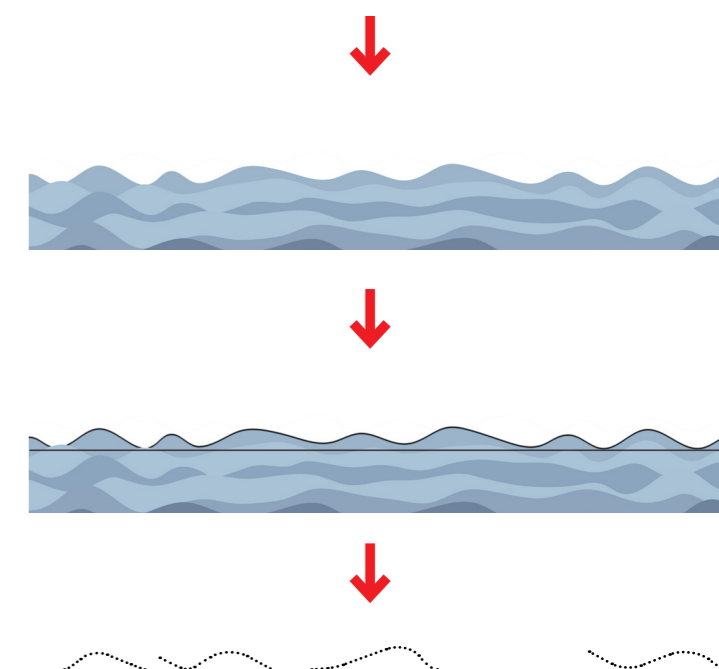


Water & Movement

Drawing inspiration from the ripples of the Lane Cove River, the office façade captures the layered movement of water across its surface. The flow of data is echoed in the building's form, where textured wave elements and glazed panels weave together in a rhythm of light and shadow. The wave forms feature a rippled, tactile finish, while the glazed areas reflect the sky, much like a still pond on a calm day. This design approach softens and breaks down the overall massing, introducing a more human-scaled, responsive element to the building's street presence.

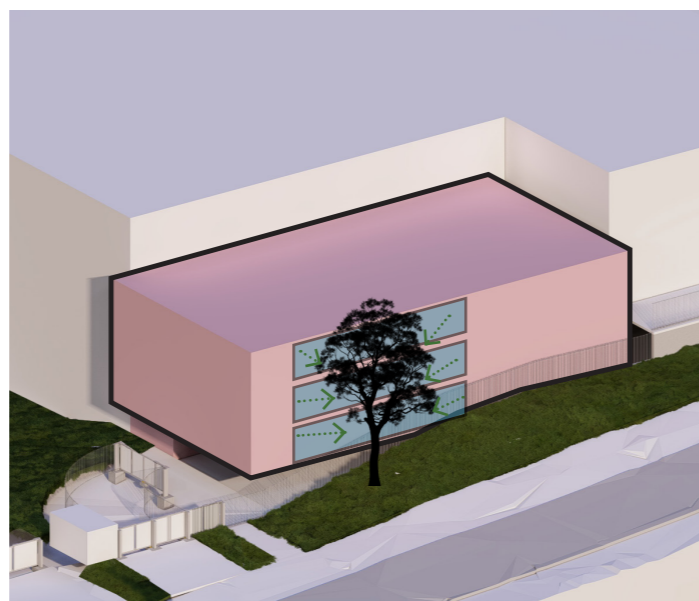
The office building playful form and composition, with the waves rippling across the front and the clearly stratified approach to each level has been designed and crafted to reflect its use and its prominent location anchoring the north east corner of the site.

The same concept is utilised on the data halls, where the concrete panels are broken down into slimmer panels at key elevational points, to mimic wind-driven ripples.



04 The Proposal

4.4 Designing with Cameraygal



Biophilic Response

Responding to the existing dense tree canopy to the south of the site, the new built form setback significantly, compared to the existing site conditions, allowing space for the regeneration of endemic bushland.

At the street frontage, the office building lifts lightly off the ground and carves away to honour the presence of the mature lemon-scented gum tree. Behind the canopy, the façade opens up, drawing the tree’s light, movement and shadow into the heart of the interior, weaving a stronger connection between nature and the workplace.

The building features extensive glazing to the north (for daylight, amenity and outlook) with solid sides to block views of the future substation and crane access point. The depth of the facade is driven by performative requirements in addition to aesthetic ones and has been carefully sized to optimise daylight and solar heat load, and to modulate outlook.

Materiality

The built form draws from the natural palette of the surrounding bushland. The light grey bark of the gum trees, the silvery-green tones of endemic foliage, and the warm, flecked browns of the Sydney Golden Wattle provide a strong foundation for the material selection.

The office façade is deeply articulated with expressed horizontal and vertical shading elements, creating a visually engaging and playful surface that offsets the calm, functional expression of the data halls behind. The primary material proposed for the office is a textured, gumleaf-coloured, powdercoated aluminium with concealed fixings — a durable, low-maintenance system that responds to the environmental conditions of the site.

In contrast, the data halls are deliberately composed as simple, recessive forms, allowing the office building to capture the eye while the surrounding tree canopy becomes a living screen across much of the development.



04 The Proposal

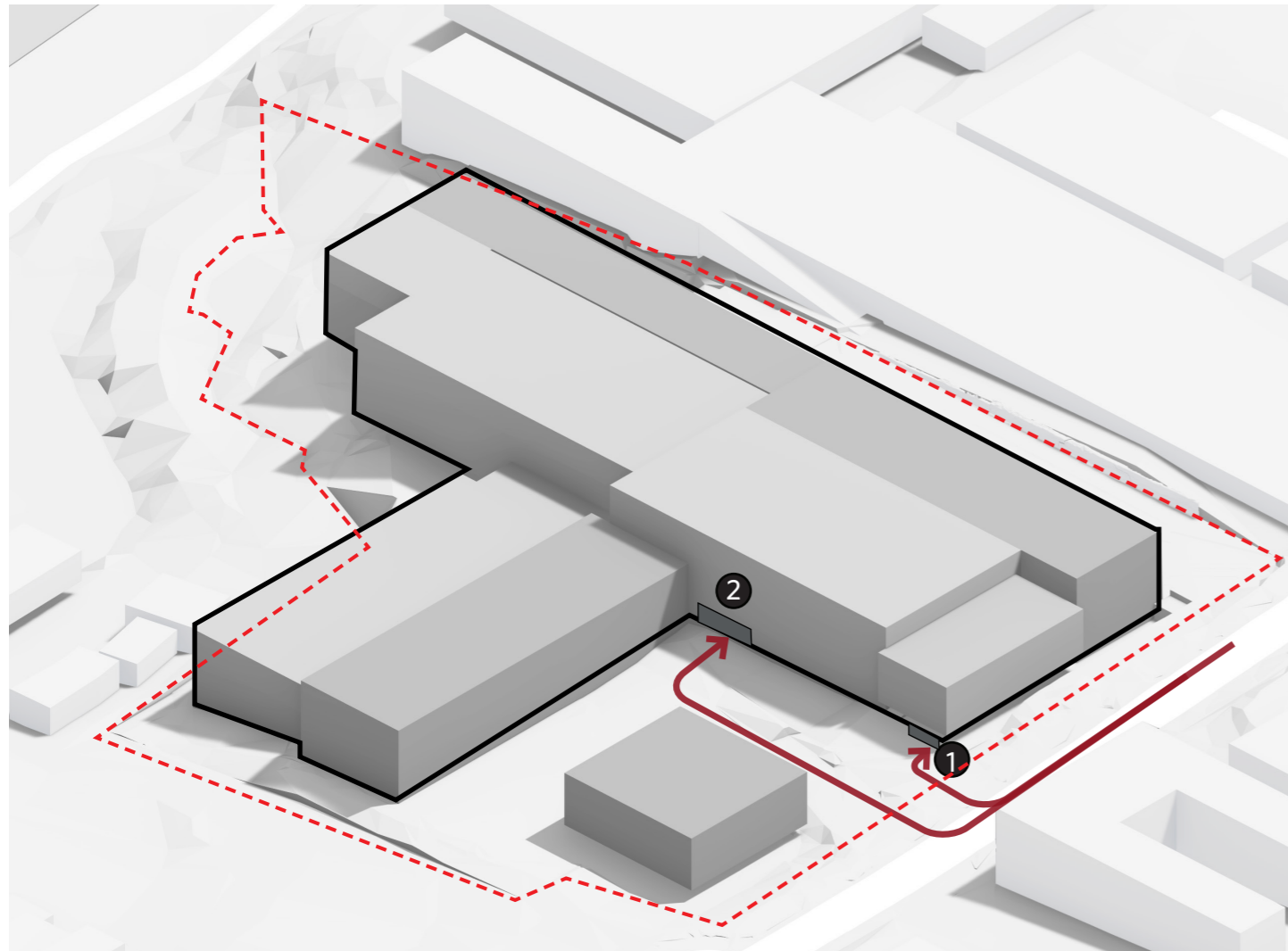
4.5 General Building Arrangement








04 The Proposal

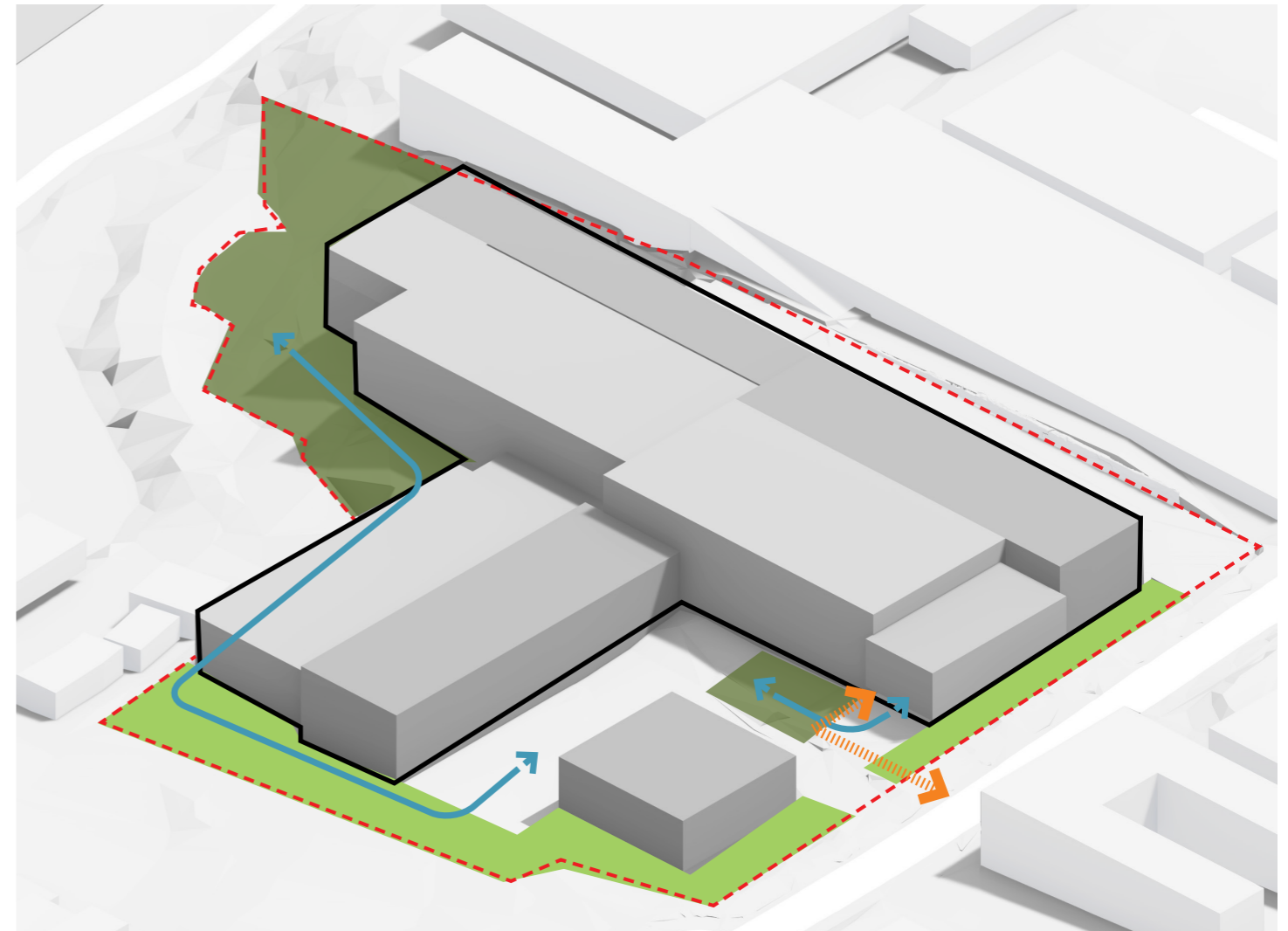
4.6 Access, Parking and Maintenance





Vehicle access & Inter-building connection



-  Vehicle Access
-  Parking area/Loading dock
-  Entry/Exit - Staff and Customer Car Park
-  Entry/Exit Service Vehicle/Truck
-  Entry/Exit Crane/ Service Vehicle Access

Urban connection & Pedestrian access



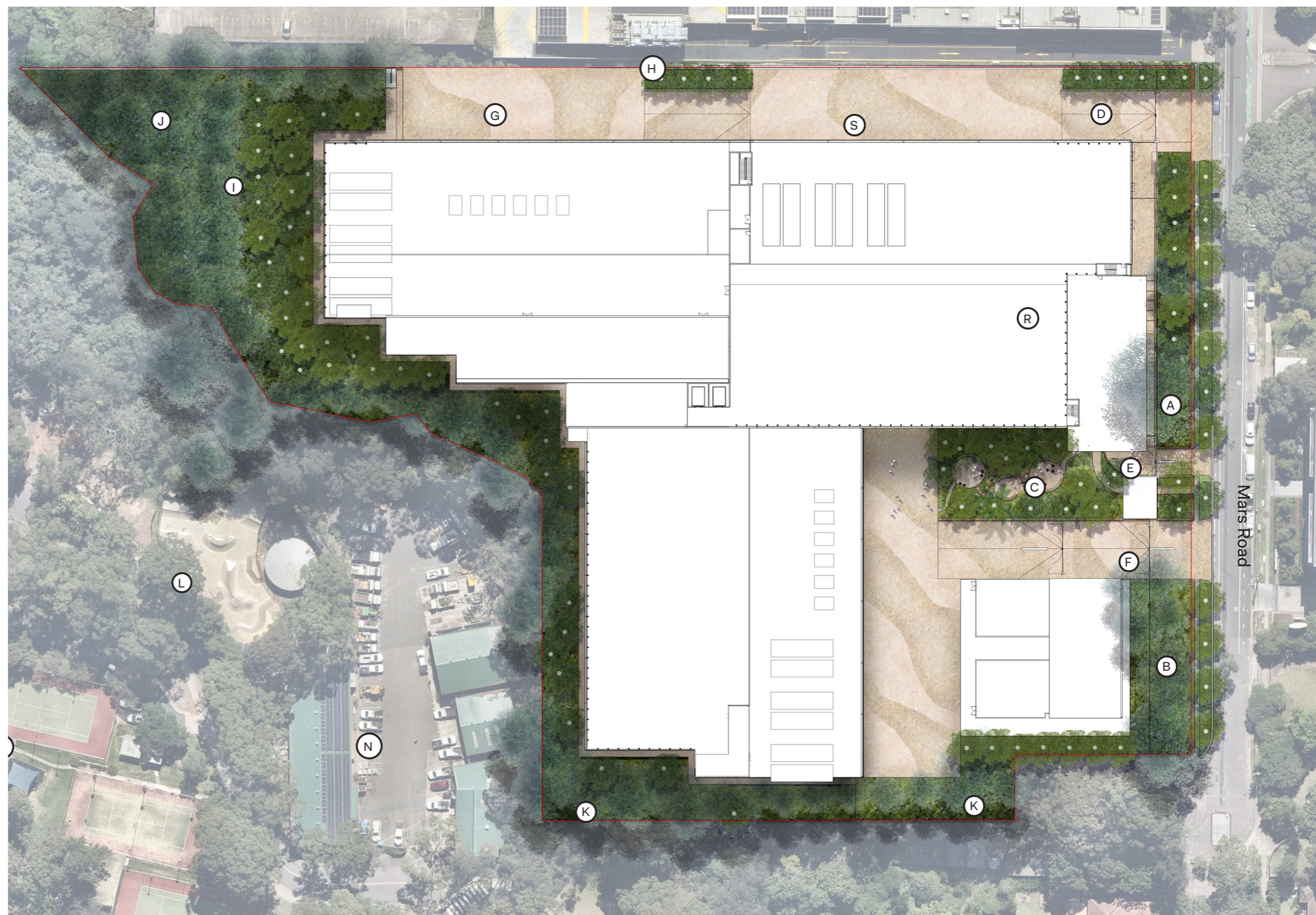
-  Regenerated Parkland & Pocket Parks
-  Green Buffer
-  Cyclist Entry
-  Pedestrian Access

04 The Proposal

4.7 Landscape

Proposed design merges green infrastructure with urban development, focusing on extensive landscaping and deep soil areas within setbacks.

Swales mimic natural waterways, in the outdoor staff breakout. Indigenous species selected to enhance biodiversity, creating habitats for native fauna. The Mars Data Centre, due to its security-focused nature, provides refuge for small fauna in its landscape, with setbacks on Mars road frontages as well as eastern and southern boundary, with planting in the Green Buffer. The design aligns with local and state Green Infrastructure policies, developed in collaboration with the NSW Government, Bayside Council, and Cammeraygal spatial designers team at Tikaeq.



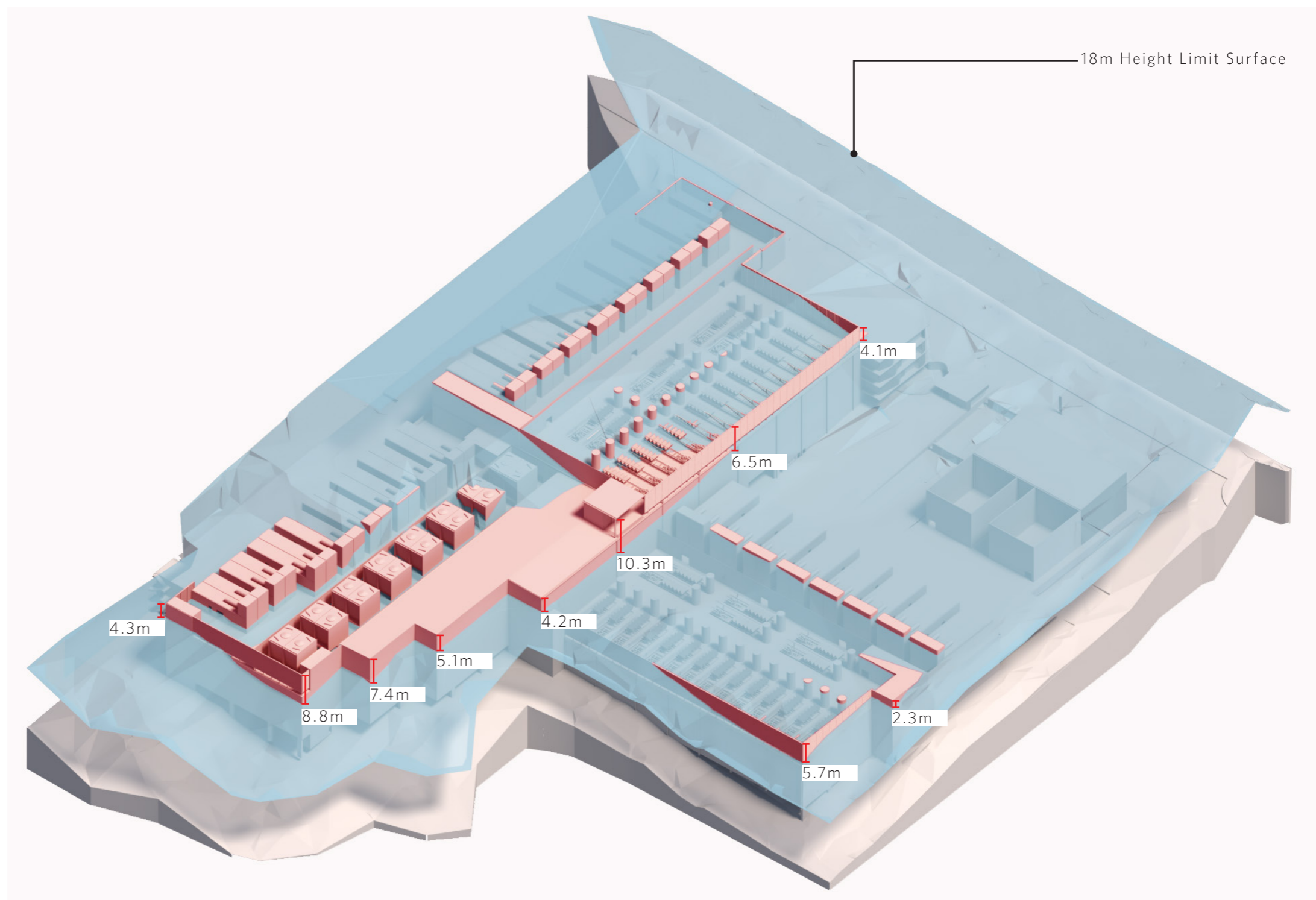
Project Mars — Goodman

04 The Proposal

4.8 Height Limit and Setback

The proposed design utilizes the existing topography to conceal the general bulk of the building.

Building mass has been thoughtfully placed where the site naturally falls, reducing the visual impact along Mars Road. A balanced cut-and-fill approach helps embed the building into the landscape, using existing topography and retained structures to minimize disruption.



04 The Proposal

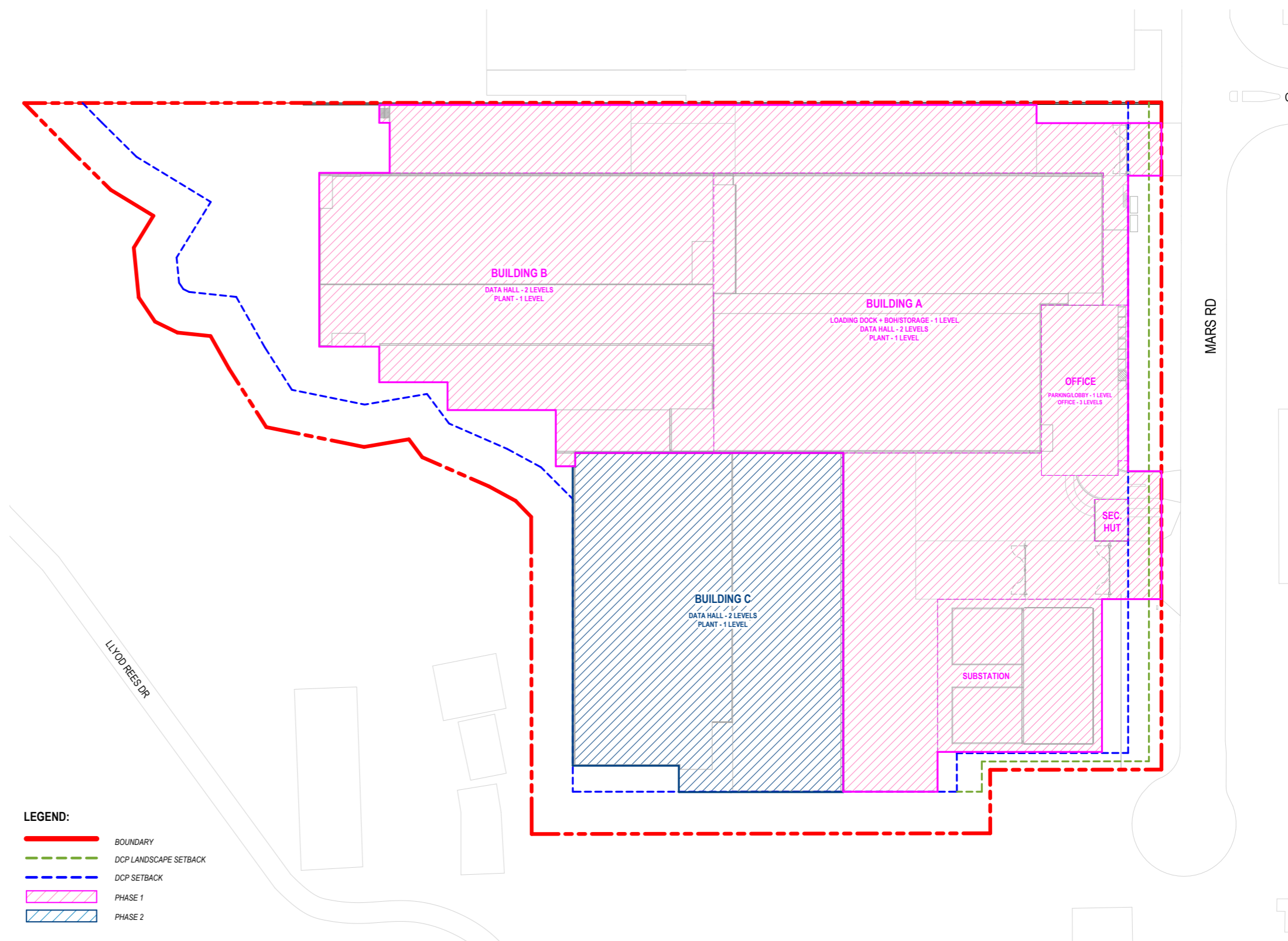
4.9 Staging

The proposed development will be delivered in two coordinated stages, ensuring an orderly construction sequence that balances operational requirements with positive urban design outcomes.

Phase 1 establishes the project’s public presence along Mars Road through the street-facing Office Building, supported by Technical Buildings A and B which accommodate core operational functions. A substation, also positioned on Mars Road, is included in this stage and has been strategically located to meet infrastructure needs while screening the loading dock from view, thereby improving the streetscape and protecting local amenity.

Phase 2 completes the development with the delivery of Building C, consolidating site capacity and reinforcing the architectural and landscape principles set in the first stage.

This staged approach provides a logical, efficient pathway for development while ensuring each phase contributes meaningfully to the public domain and the overall cohesion of the precinct.



- LEGEND:**
- BOUNDARY
 - DCP LANDSCAPE SETBACK
 - DCP SETBACK
 - PHASE 1
 - PHASE 2

05

Facade and Materiality



05 Facade and Materiality

5.1 Facade Principles

ELEVATIONAL HIRACHY:

The building’s façades have been carefully assessed and designed to create a hierarchy of visibility across the site. The key elevations — including the office frontage addressing Mars Road and prominent portions of the eastern façade overlooking the parklands and neighbouring buildings — have been given particular design emphasis.

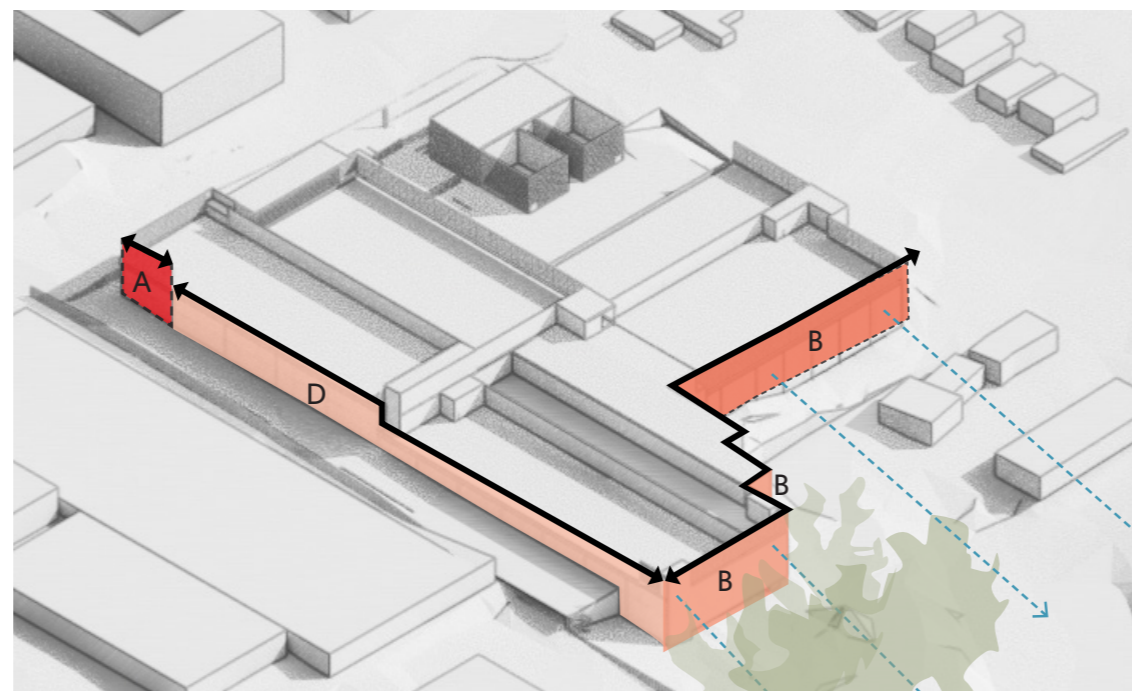
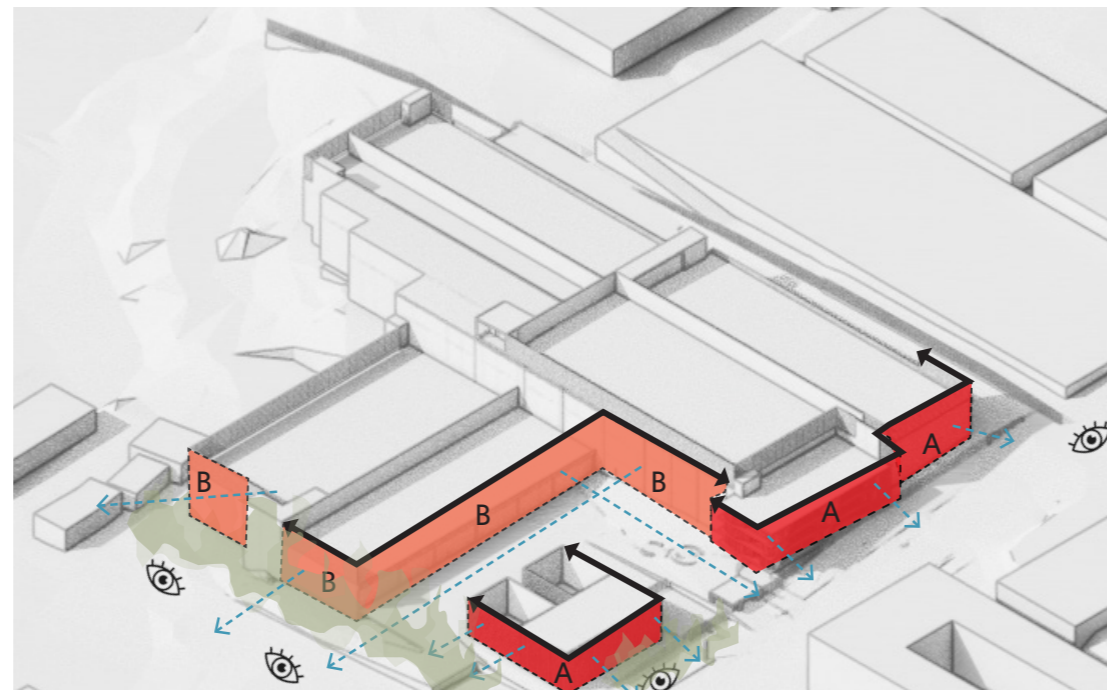
These highly visible façades extend beyond purely functional requirements, incorporating architectural articulation and material expression that respond to the broader context. Their design has been informed through consultation with the Connection with Country team at TIKAEQ, ensuring that cultural narratives and environmental sensitivities are meaningfully embedded in the built form.

FUNCTIONAL LAYERING:

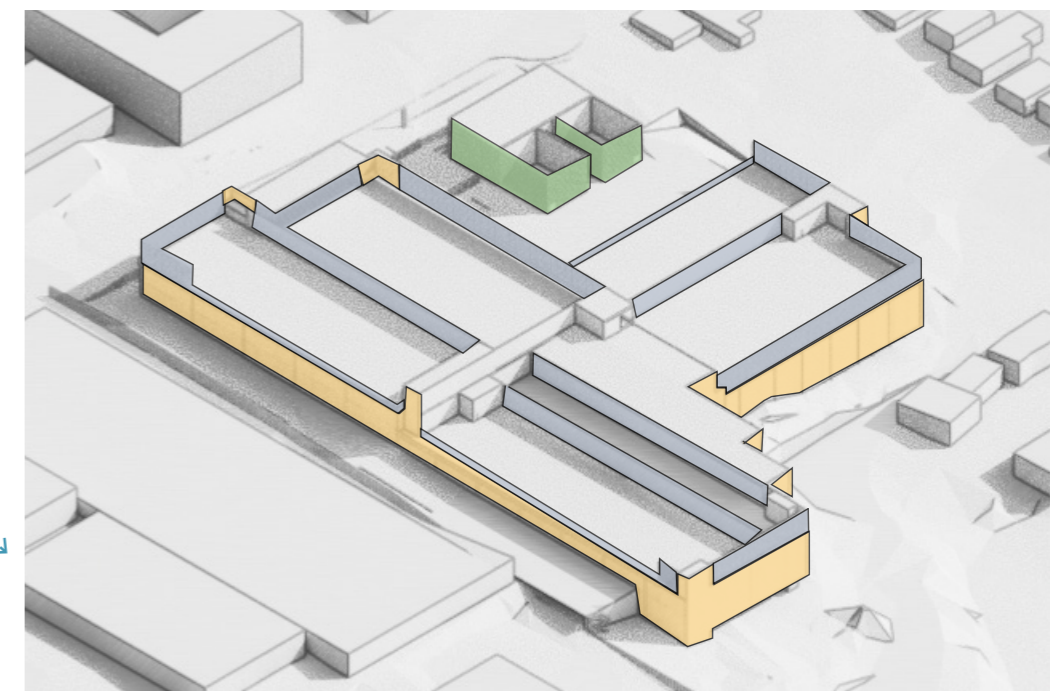
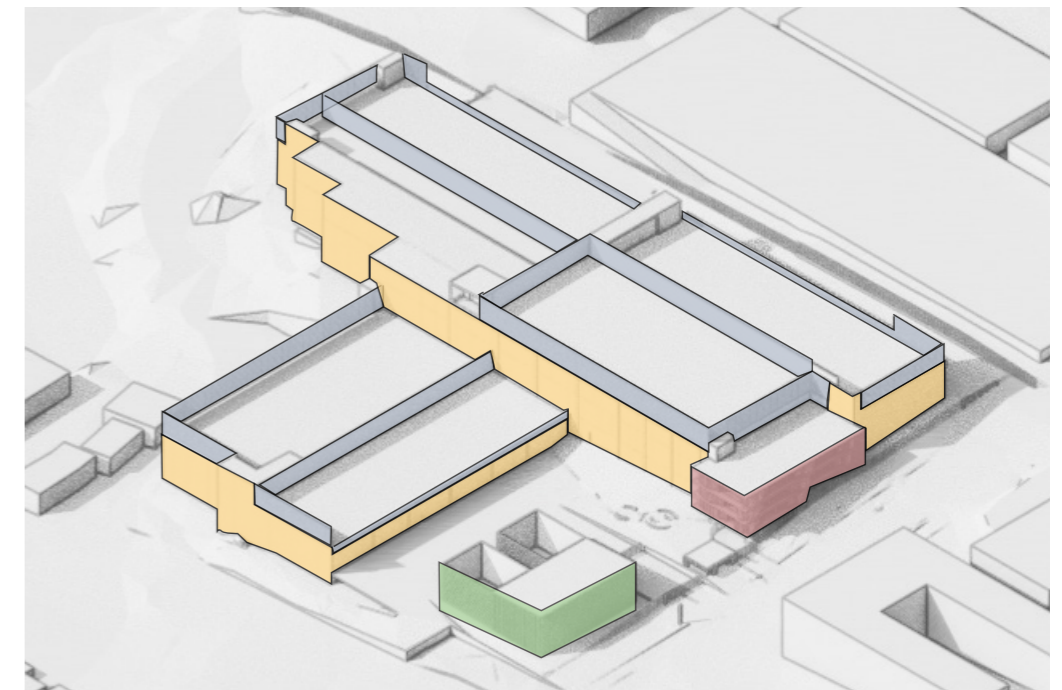
The overall building composition is organised through a predominantly horizontal functional stratification. The data halls and technical spaces form the dominant massing element, establishing the primary architectural expression.

Above, the rooftop plant and generator spaces are consolidated within a screened “crown,” designed to discreetly conceal services from key view corridors along Mars Road, the adjacent parklands, and neighbouring properties across the valley.

In contrast, the office building introduces a more articulated and human-scaled frontage to Mars Road, creating a welcoming and active public interface, bringing texture, rhythm, and connection to the public realm.



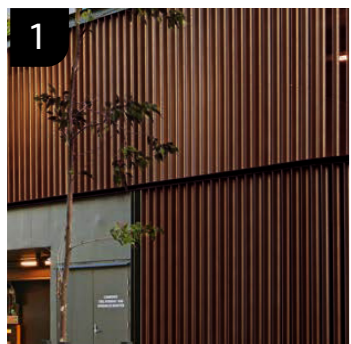
Elevation Hirachy
 A: Highly visible from Mars Rd.
 B: Visible from Mars Rd in distance, and from residential area behind vegetation and trees
 C: Minor visibility and screened visually with trees
 D: Partially visible from Mars Rd and western industrial neighbor



Functional Layering
 Office
 Data Hall
 Plant & Generator
 Substation

05 Facade and Materiality

5.2 North Elevation



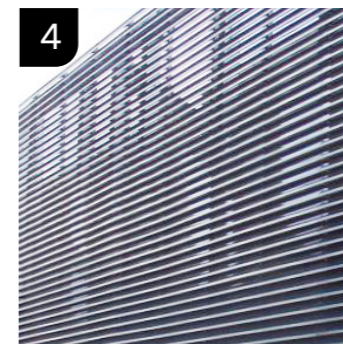
1
Metal Screen Battens
Dark Brown



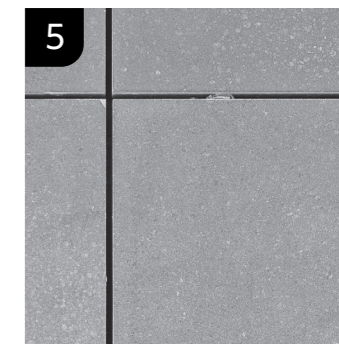
2
Glass,
Light Grey



3
Concrete Slab Edge
Light Grey



4
Metal Louvre,
Light Grey



5
Concrete Panels
Light Grey

View From Mars Rd





05 Facade and Materiality

5.3 East Elevation



1 Metal Louvre, Color: Grey



2 Concrete Panels

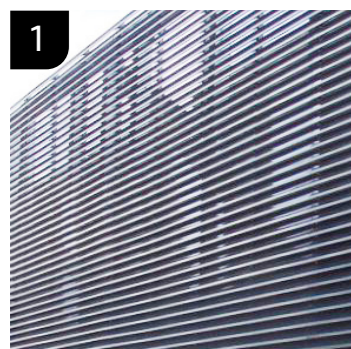


3 Metal Cladding, Color: Light Grey



05 Facade and Materiality

5.4 South Elevation



1
Metal Louvre, Color: Grey



2
Concrete Panels



3
Metal Finish, Color: Light Grey



05 Facade and Materiality

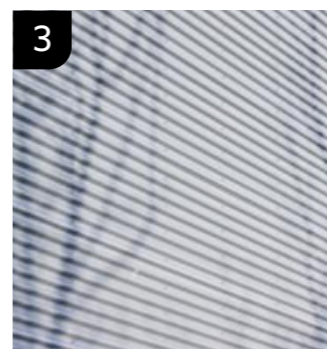
5.5 West Elevation



1 Metal Louvre, Color: Grey



2 Concrete Panels



3 Metal Finish, Color: Light Grey



4 Metal Finish, Color: Light Grey





06

Ecologically Sustainable Design



06 Ecologically Sustainable Design

6.1 ESD Initiatives

This section provides an overview of some of the ESD initiatives adopted by the project. Full details of initiatives can be found in the Sustainability and GHG Emissions Statement report for the project.

ENERGY

Overall energy consumption for the data centre is covered in the ESD report.

For the office building, the primary northern facade has been carefully designed to optimise solar access / glare / internal heat load, and to minimise building HVAC requirements. This northern facade is deeply articulated with expressed horizontal and vertical shading elements that reflect the water narrative as explained in section 4.4.

These were sized through detailed environmental modelling during the early design phases of the project. As a consequence of this testing, the overall depth of the facade and extent of shading was significantly increased from the originally proposed solution.

COMFORT / INDOOR ENVIRONMENTAL QUALITY (IEQ)

Achieving high levels of occupant comfort and IEQ were important drivers for the project. Office floorplates are intentionally shallow to maximise natural daylighting, which in turn also improves energy usage.

Preference will be given through the proposal for all paints, adhesives, sealants and floor coverings to have low Volatile Organic Compound (VOC) emissions and engineered wood products to have low formaldehyde emissions.

WATER

Most of the water used on site will be for the operation of the data centre, and strategies here are described in the ESD report. Smaller water quantities will be used within occupied areas, and to minimise the potable water usage in the welfare area all sanitary wares will achieve a minimum WELS – 5-star rating

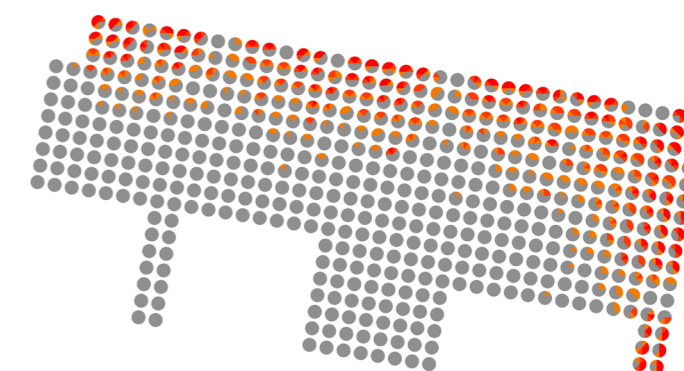
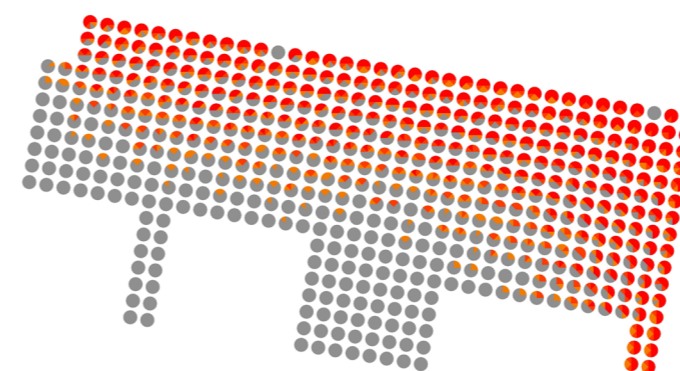
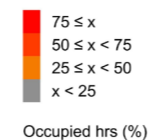
Without Shading Device

With Shading Device

Annual glare

Variation: Option Facade Treatment

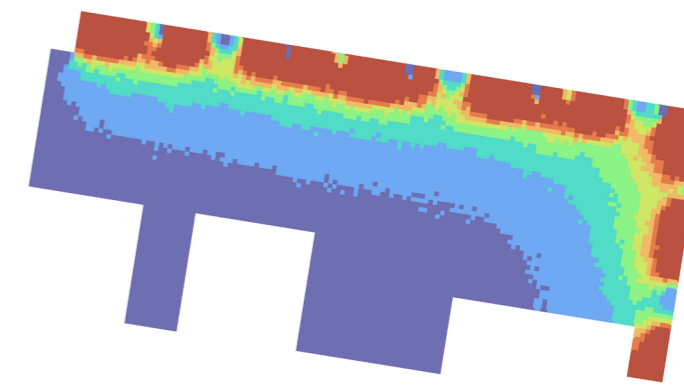
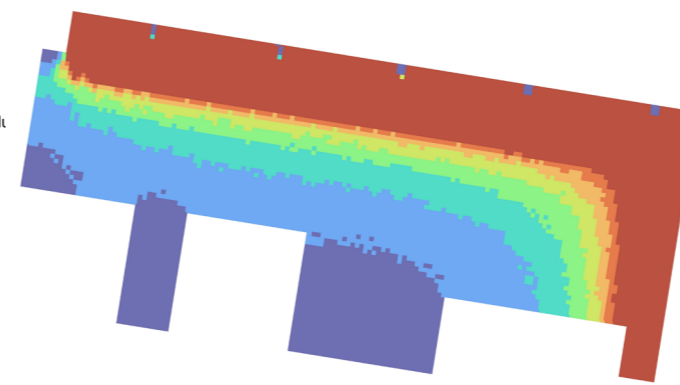
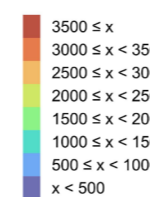
31% of views are above 5% disturbing
Occupied hrs (%) range: 0 To 94.49 %
Occupied hrs (%) average: 14.1 %



Mean Illuminance

Variation: Option Base

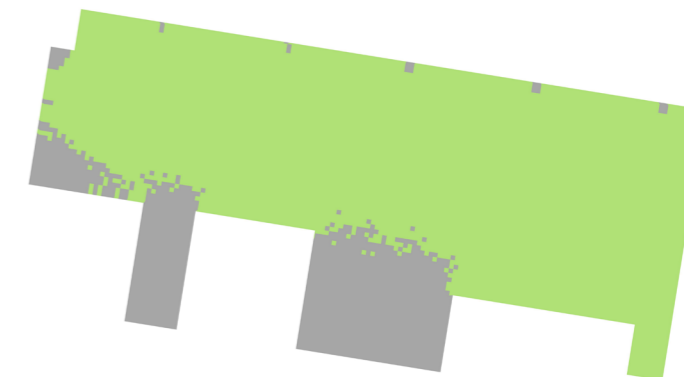
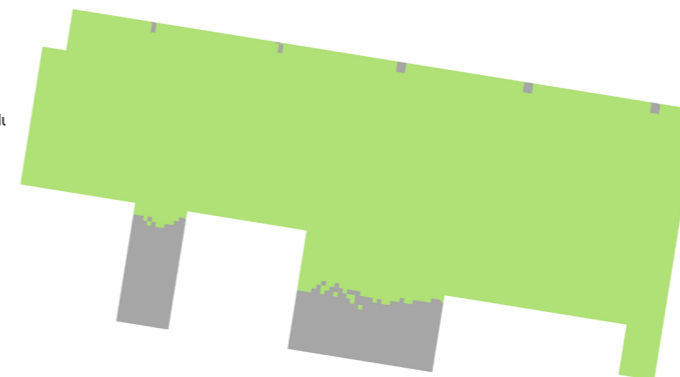
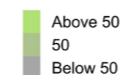
Analysis area: 489 m²
Illuminance (lux) range: 0 To 26533.9609 lx
Illuminance (lux) average: 4828 lux



Mean Illuminance

Variation: Option Base

Analysis area: 489 m²
Illuminance (lux) range: 0 To 26533.9609 lx
Illuminance (lux) average: 4828 lux



06 Ecologically Sustainable Design

6.1 ESD Initiatives

MATERIALS

Preference will be given to materials responsibly sourced in accordance with the following:

Fabricated structural Steelwork - Environmental Sustainability charter of the Australian Steel Institute (ASI)

Steel - ISO 14001 / World Steel Associates Climate Action Programme

Timber - Reused / FSC / AFC/ PEFC

PVC - Best practice PVC

Other - ISO 14001

Precast concrete will be used to expedite construction and reduce the embodied carbon of the development.

LANDSCAPE + BIODIVERSITY

As noted previously in this report, landscaped setback zones and bushland regeneration are generously sized to improve the quality of streetscapes and to increase opportunities for deep soil and biodiversity. A total of 8,390m² of landscaped area has been provided at ground level.

A mix of endemic planting is proposed along the perimeter of site to bolster the existing bushland. Alongside removal of nationally significant weeds the mix of new and existing planting will improve biodiversity and reduce and remediate the incursion of weeds from adjacent sites.

Through the implementation of these initiatives the project clearly demonstrates a commitment to ESD principles throughout the design, construction, and operational life phases. Additionally, the project design team has worked to optimise energy performance and address key climate related risks posed to the site, work that will continue to be developed throughout project detailed design.



