



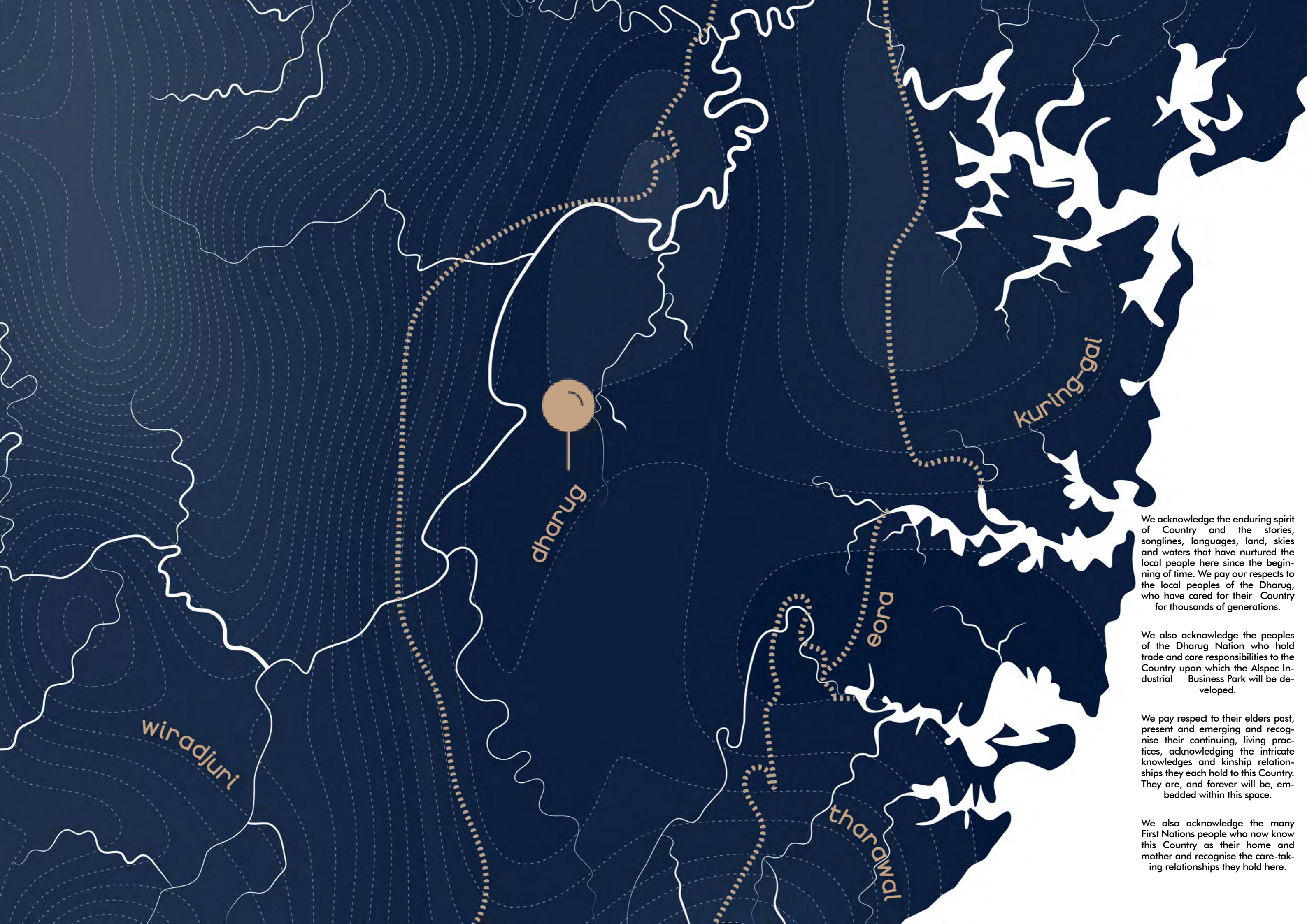
Storage and Distribution
Warehouse -
Alspec Industrial
Business Park

Orchard Hills NSW
Design Report

JUNE 2025

ISSUE [2]





We acknowledge the enduring spirit of Country and the stories, songlines, languages, land, skies and waters that have nurtured the local people here since the beginning of time. We pay our respects to the local peoples of the Dharug, who have cared for their Country for thousands of generations.

We also acknowledge the peoples of the Dharug Nation who hold trade and care responsibilities to the Country upon which the Alspec Industrial Business Park will be developed.

We pay respect to their elders past, present and emerging and recognise their continuing, living practices, acknowledging the intricate knowledges and kinship relationships they each hold to this Country. They are, and forever will be, embedded within this space.

We also acknowledge the many First Nations people who now know this Country as their home and mother and recognise the care-taking relationships they hold here.

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01

INTRODUCTION

Executive Summary

The HB+B Property proposal for the warehousing facility located at 221-235 Luddenham Road, Orchard Hills, comprises the development of a storage and distribution facility incorporating a combination of high bay automated storage and retrieval system (ASRS) and low bay selective racking.

The proposed total warehouse area is 41,950m², comprising of 29,665m² of low bay area and 12,285m² of high bay ASRS area.

This design report prepared by nettleontribe has been prepared in accordance with the Secretary Environmental Assessment Requirements (SEARs) issued for the Alspec Warehouse State Significant Development Application (SSDA)



Development Summary

<p>104,959m²</p> <p>Site Area</p>	<p>45,449m²</p> <p>GLA</p>	<p>41,950m²</p> <p>Total Warehouse Area</p>	<p>1,843m²</p> <p>Office</p>	<p>0.43:1</p> <p>FSR</p>
<p>246</p> <p>Staff & Visitor Car Parking</p>	<p>64</p> <p>Heavy Rigid Vehicle Parking</p>	<p>19</p> <p>B-Double Parking</p>	<p>10%</p> <p>Deep Soil</p>	<p>48,157m²</p> <p>Total Building Area</p>



Key requirement listed in the SEARs	Response/Reference
Design Excellence:	
<ul style="list-style-type: none"> • Demonstrate how the development will achieve: <ul style="list-style-type: none"> o design excellence in accordance with any applicable EPI provisions. o good design in accordance with the seven objectives for good design in <i>Better Placed</i>. • 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. 	<ul style="list-style-type: none"> - Design Proposition, page 17 - Better Placed Design Principles, page 18 - Precedents, page 21 - Materiality, page 30-31
Built Form and Urban Design	
<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. 	<ul style="list-style-type: none"> - Building Setbacks, page 23 - Building Height, page 28 - Architectural Appendix, pages 32-36
Traffic and Transport:	
<ul style="list-style-type: none"> • Provide a transport and accessibility impact assessment, which includes: <ul style="list-style-type: none"> • details of all traffic types and volumes likely to be generated during construction and operation, including a description of key access and haul routes. • an assessment of the predicted impacts of this traffic on road safety and the capacity of the road network, including consideration of cumulative traffic impacts on existing performance levels of nearby intersections (using industry standard modelling). • plans demonstrating how all vehicles likely to be generated during construction and operation and awaiting loading, unloading or servicing can be accommodated on the site to avoid queuing in the street network. • details and plans of any proposed internal road network, loading dock provision and servicing, on-site parking provisions, and sufficient pedestrian and cyclist facilities, in accordance with the relevant Australian Standards. • swept path analysis for the largest vehicle requiring access to the development. • details of road upgrades, infrastructure works, or new roads or access points required for the development if necessary. • Provide a Construction Traffic Management Plan detailing predicted construction vehicle, routes, access and parking arrangements, coordination with other construction occurring in the area, and how impacts on existing traffic, pedestrian and bicycle networks would be managed and mitigated. 	<ul style="list-style-type: none"> - Locality and Context, page 12 - Setbacks and Street Frontage, page 23 - Traffic Management, page 27



02

PLANNING FRAMEWORK

Greater Sydney Region Plan, A Metropolis of Three Cities



Greater Sydney Region Plan

The Greater Sydney Region Plan has been developed to set 40 year goals (up to 2056) to manage and plan for the social, economic and environmental growth of Greater Sydney.

Structured around four core principles - Infrastructure, Liveability, Productivity and Sustainability - it is underpinned by a vision of three cities where people are able to live conveniently to their jobs, education, health facilities, services and community places.

The top level plans offer high level structuring of key centres, connectivity, employment and infrastructure.

Figure 1 shows the highest level 'Three Cities Plan'.

Figure 2 shows the Northern Gateway's position within the region plan.

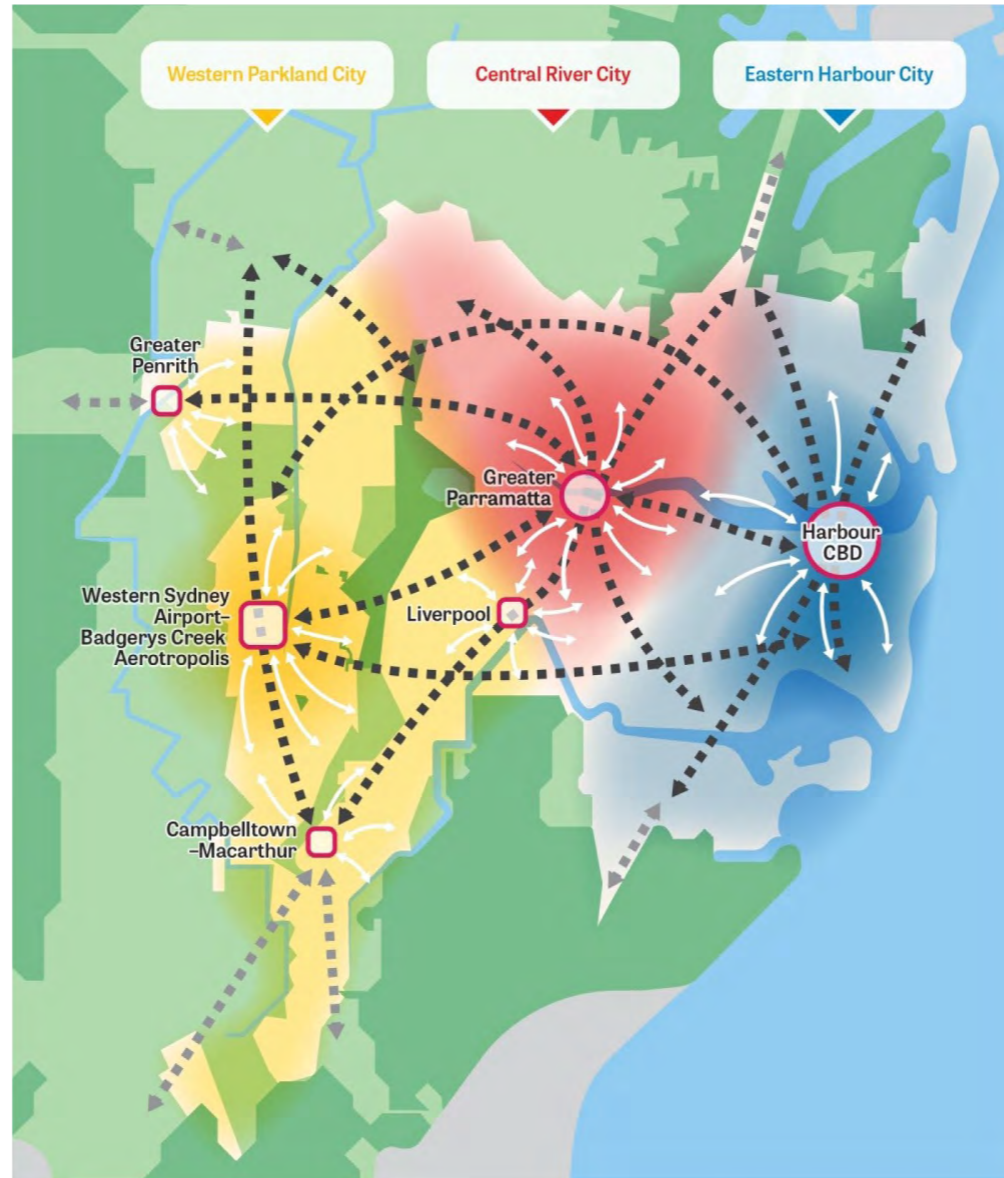


Figure 1

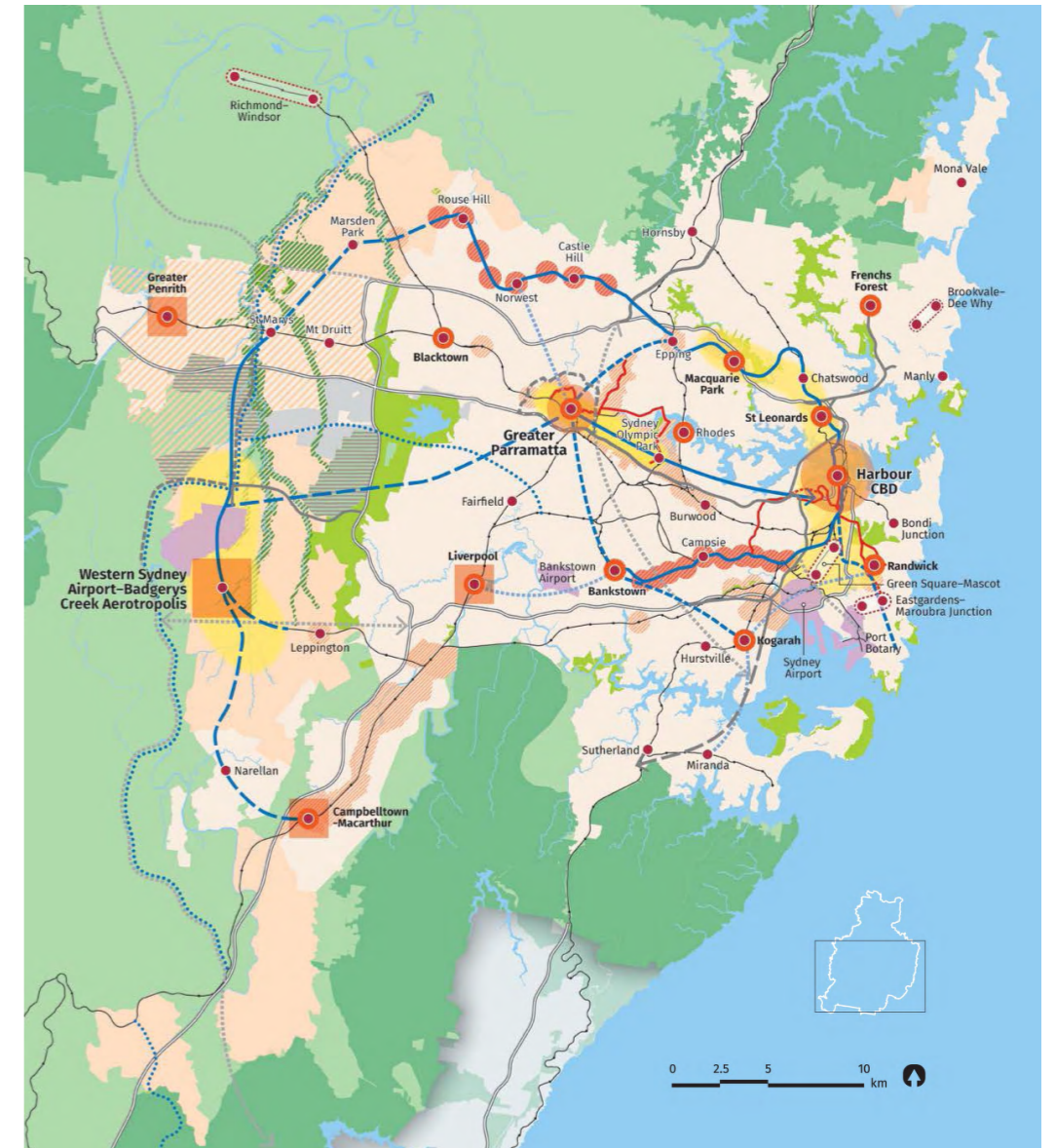


Figure 2

Western Parkland City District Plan



Western Parkland City District Plan

The Western Parkland City District Plan is an subsidiary of the Greater Sydney Regional Plan. Structured around the same four core principles, the district plan’s framework aims to manage and capitalise on the once in a generation economic and population boom facilitated by the new Western Sydney Airport and the established centres of Liverpool, Parramatta and Penrith, while protecting the national parks surrounding it.

In 2016 the Western Parkland City had a population of 740,000. As a key growth area it is projected to grow to 1.1 million by 2036 and more than 1.5 million by 2056.

Through planned and commenced infrastructure upgrades the Western Parkland City will be connected to regional, state and national mass transit corridors.

Figure 3 shows the Northern Gateway within the Western Parkland City District Plan.

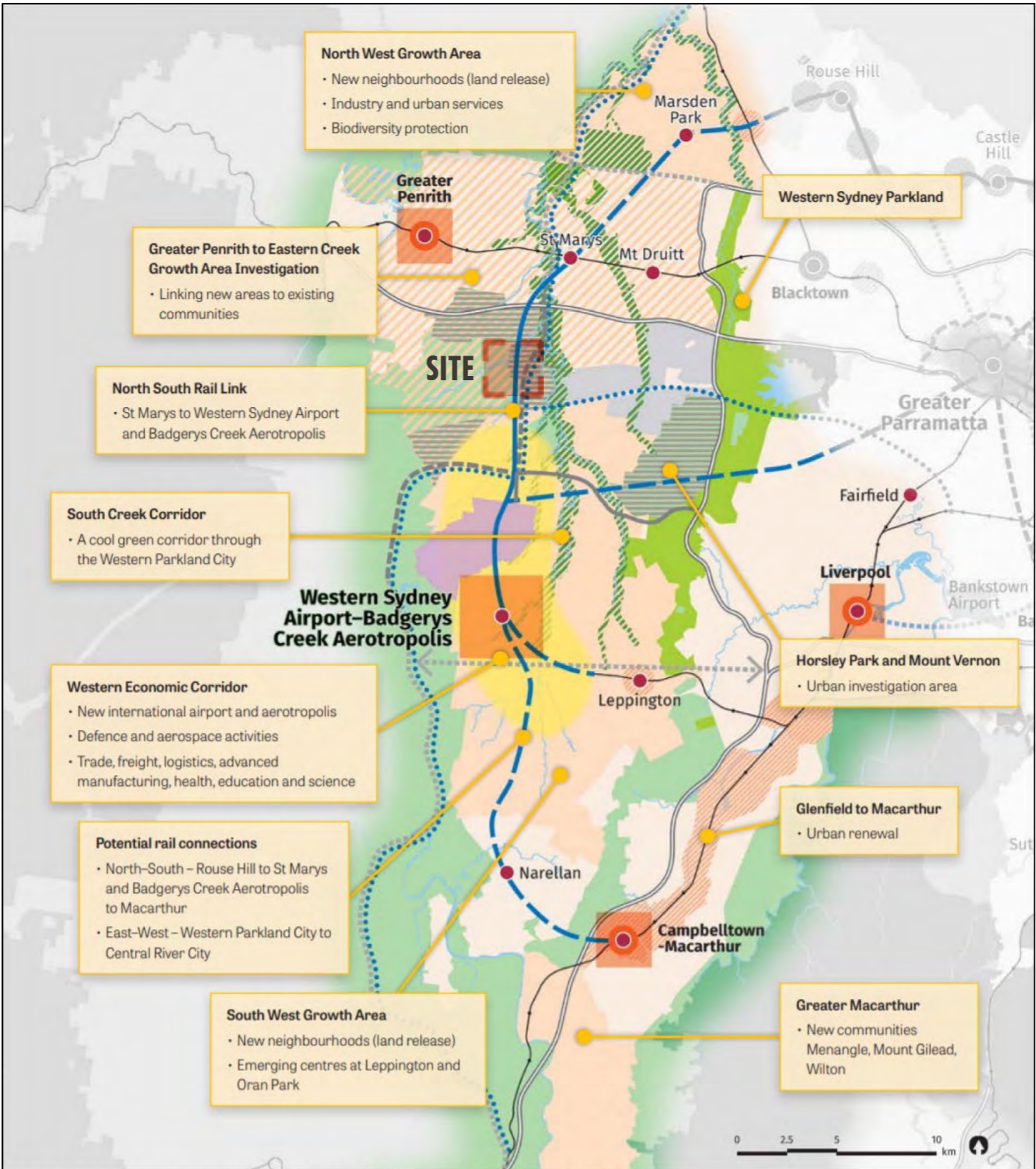


Figure 3 Western Parkland City (Greater Sydney Commission, 2018a)

Planning Controls



Additional Permitted Uses Map - Sheet APU_014

Additional Permitted Uses
 Refer to Schedule 1

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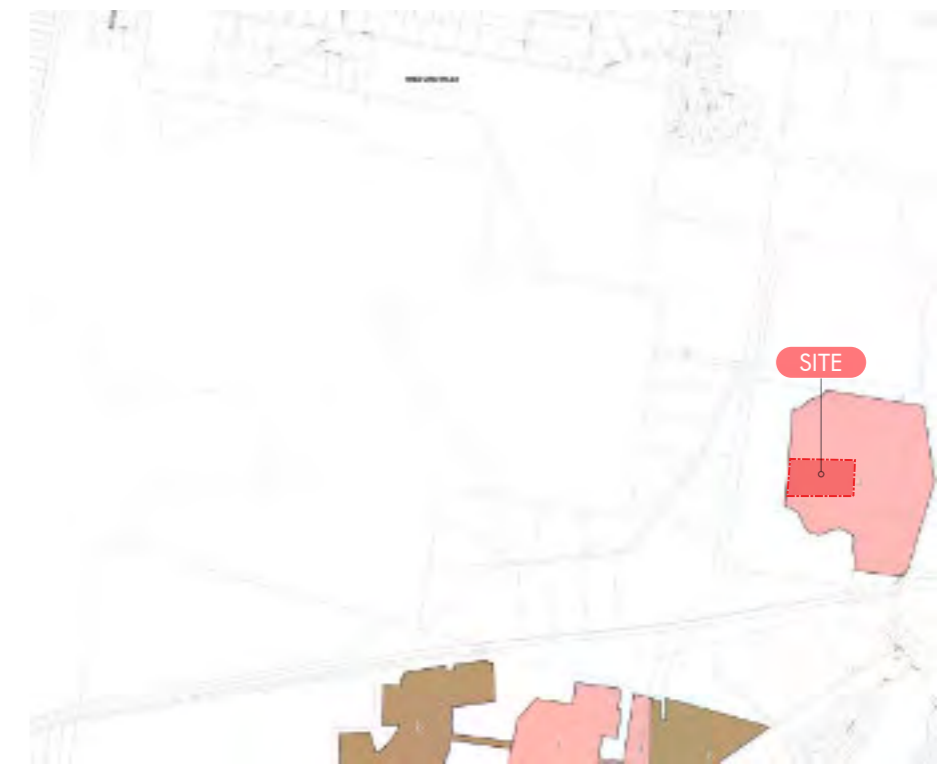
(Source: Extract from Penrith Local Environmental Plan 2010)

Height of Buildings Map - Sheet HOB_014

Maximum Building Height (m)

10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
42
44
46
48
50
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80

Cadastral
 Cadastre 12120003 © Spatial Services



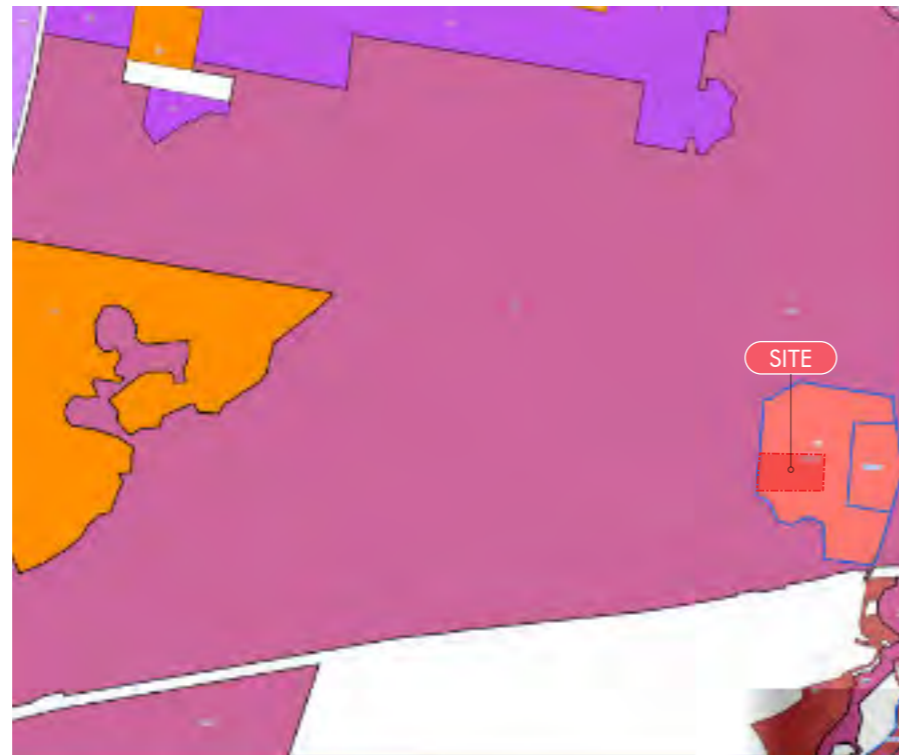
(Source: Extract from Penrith Local Environmental Plan 2010)

Lot Size Map - Sheet LSZ_014

Minimum Lot Size (sq m)

100
200
325
500
600
800
1000
1200
1500
2000
3000
4000
5000
10000 (1 ha)
12500 (1.25 ha)
20000 (2 ha)
18000 (1.8 ha)
20000 (2 ha)
40000 (4 ha)
80000 (8 ha)
1000000 (1000 ha)

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 Cadastre 12120003 © Spatial Services



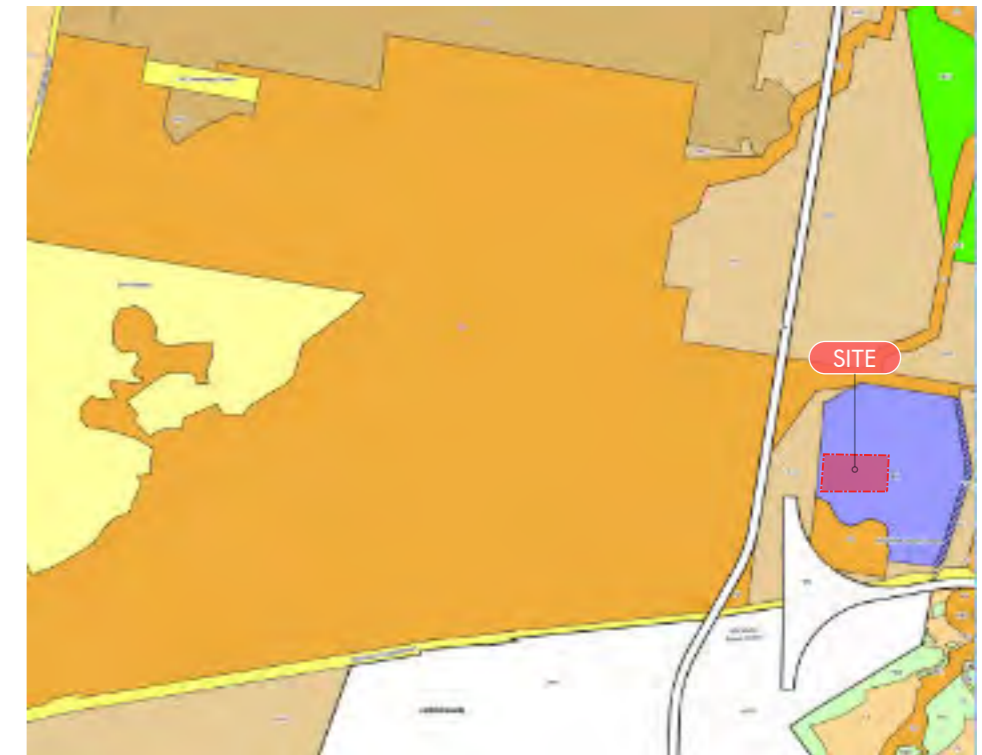
(Source: Extract from Penrith Local Environmental Plan 2010)

Land Zoning Map - Sheet LZN_014

Zone

- National Parks and Nature Reserves
- Environmental Conservation
- Environmental Management
- Environmental Living
- Local Centre
- Commercial Centre
- Productivity Support
- General Industrial
- Mixed Use
- General Residential
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Large Lot Residential
- Public Recreation
- Private Recreation
- Primary Production
- Rural Landscape
- Primary Production Small Lots
- Wetland
- Special Activities
- Manufacture
- Industrial
- Enterprise
- Natural Waterways
- Recreational Waterways
- Deferred Water
- SCP1 Industry and Employment 2021
- SCP1 (Transport and Infrastructure) 2021
- SCP1 (Process - Western Parkland City) 2021
- Transport Investigation Area (Refer to Clause 7.12)

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 Cadastre 12120003 © Spatial Services



(Source: Extract from Penrith Local Environmental Plan 2010)

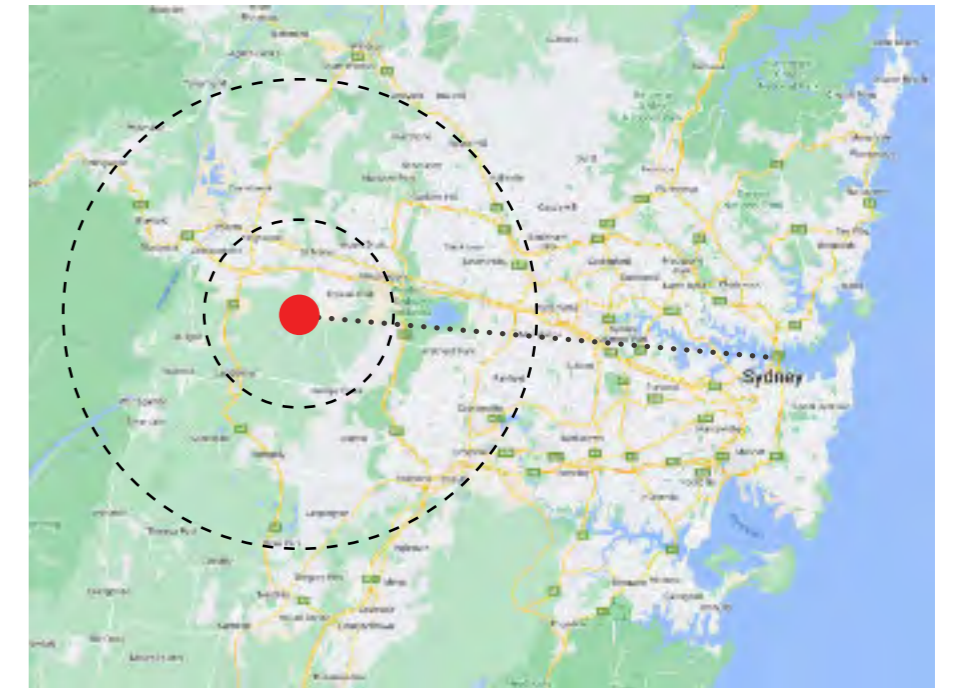
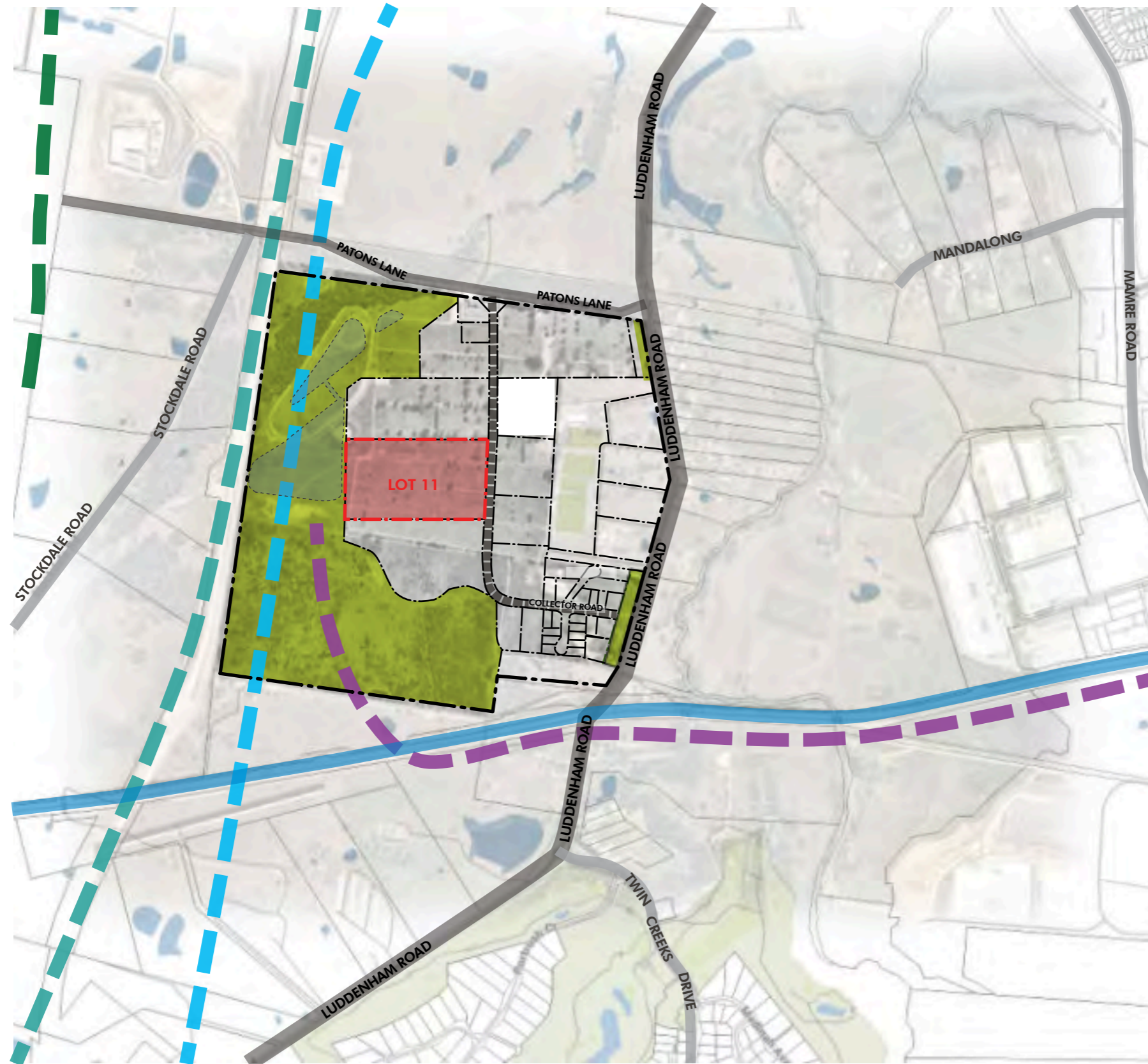


03

LOCATION & CONTEXT












Locality & Context - Orchard Hills



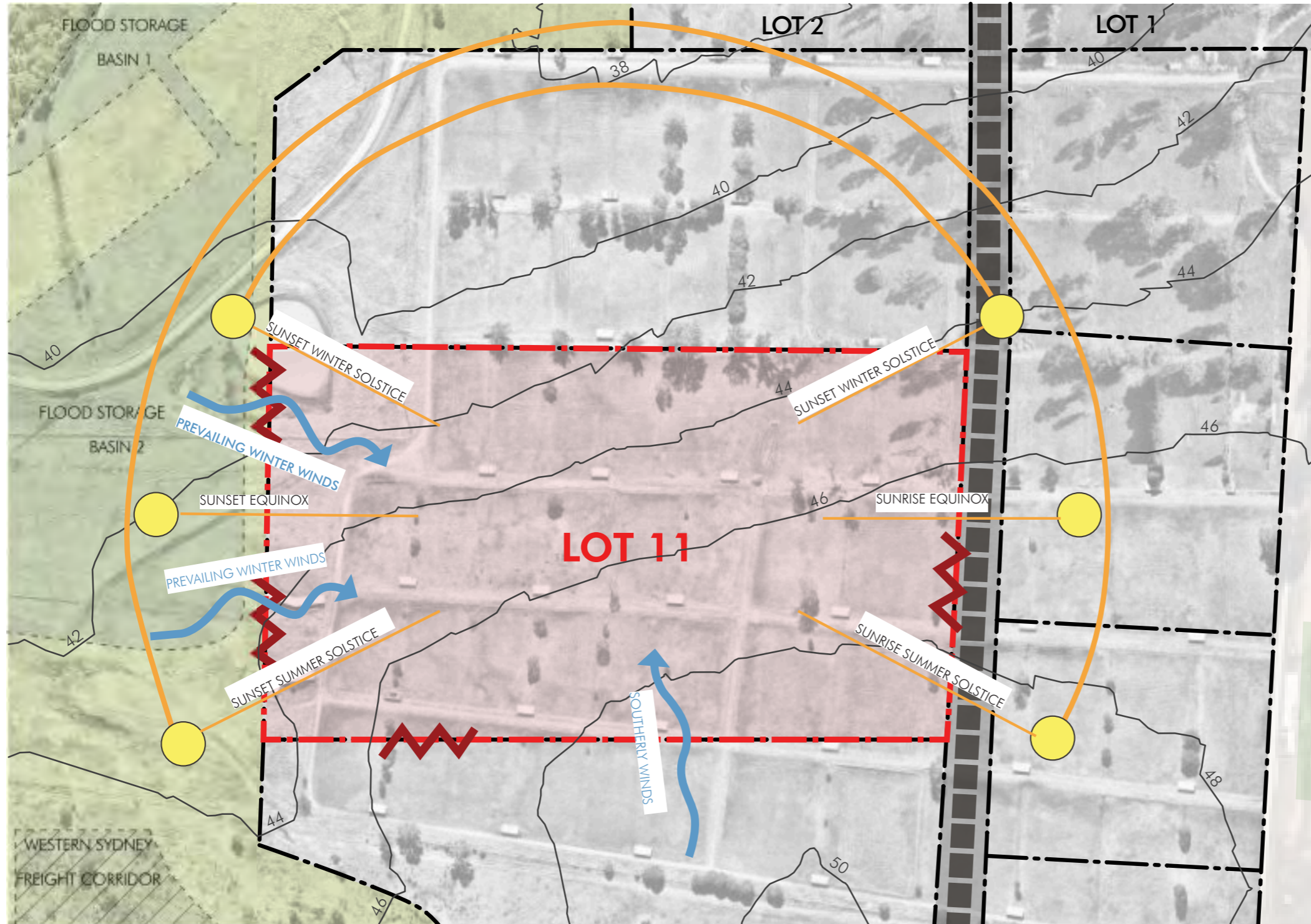
Situated approximately 50km West of Sydney CBD, Orchard Hills is located within the Penrith Local Government Area (PLGA) and Zoned E4 General Industrial.

The access to the site will be via the Estate Road which connects Luddenham Road to the South with Patons Lane to the North. Stockdale Road to the west is another main road in the wider context of the site.

-  EXISTING ROAD
-  PROPOSED ROAD
-  SITE BOUNDARY
-  PIPELINE
-  FLOOD STORAGE BASIN
-  OUTER SYDNEY ORBITAL
-  WESTERN SYDNEY FREIGHT LINE
-  NORTH SOUTH RAIL LINE
-  PLANNED METRO LINE



The Site - Topography and Sun Analysis



Site Context

The site is located at 221-235 Luddenham Road, Orchard Hills within the Penrith local government area (LGA). The site comprises a generally regular shaped lot with an area of approximately 104,959sqm.

The site is bounded by Luddenham Road to the east, and Patons Lane to the north. The proposed corridor for the Outer Sydney Orbital forms the western boundary of the Business Park.

The surrounding locality is described below:

North: The surroundings north of the site are predominantly rural residential and agricultural facilities. The Erskine Park Fire Service and Dogs NSW are also located to the north-east. The Western Motorway (M4) is located further north of the site accessed via the Luddenham Road and Mamre Road connection. South Creek flows north-south, with a tributary connection beginning north of the site and breaking away to the west.

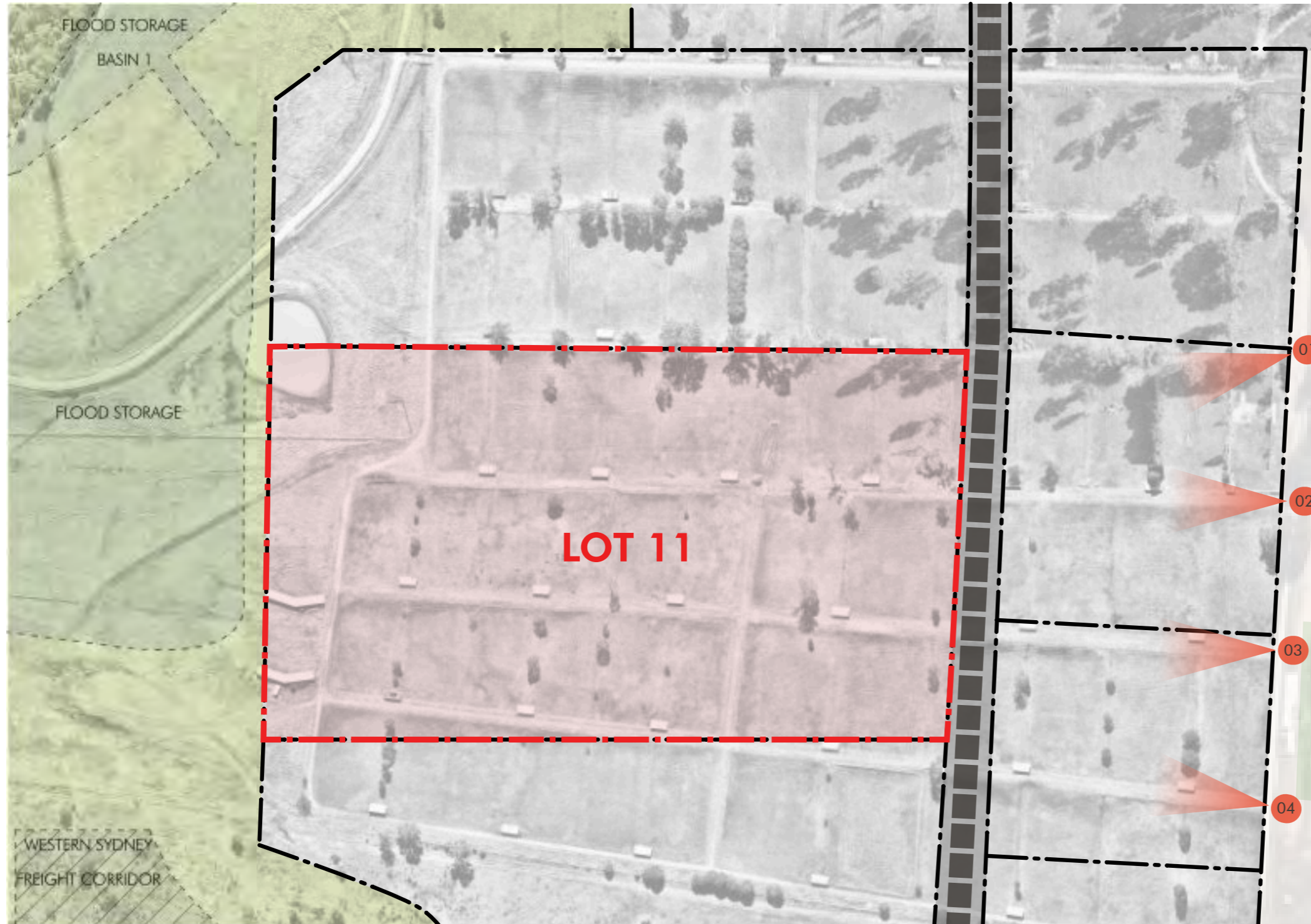
East: The eastern boundary divides its interface with Luddenham road (northern half) and several properties (southern half). These include agricultural, community and cultural uses relating to the Bosna Croatian Club, a plant nursery and Luddenham Oval. Further east across Luddenham Road are several rural residential dwellings and South Creek, a major creek line.

South: Immediately south of the site are more residential dwellings. Further south is the Northern Gateway Precinct of the Western Sydney Aerotropolis.

West: To the west of the site is an environmental conservation zone which is adjacent to a tributary of South Creek. To the north west of the site is a waste management service relating to a recycling and landfill centre.



Key Views Of Site and Surrounds



Key Views



01 - View of the property North East of the site from Luddenham Road



02 - View of the property East of the site from Luddenham Road



03 - View of the property East of the site from Luddenham Road



04 - View of the property South East of the site from Luddenham Road

--- Site Boundary

▶ View





Key Views Of Site and Surrounds



Key Views



05 - North East view of the site from Luddenham Road and AIBP site signage



06 - Residential property East of the site across Luddenham Road.



07 - Surrounding property and electrical tower East of the site across Luddenham Road.



08 - South East view of the site from Luddenham Road

--- Site Boundary

▶ View





04

DESIGN PROPOSAL



The concept for Alspec Industrial Business Park is to emphasise the development of a world-class warehouse and logistics precinct, embodying a corporate, high-quality, sustainable and cohesive estate. The architectural vision includes simple, rational, and well-proportioned buildings, accentuated by high-quality elements, particularly at entry points, office areas, and street facades. A consistent theme of showcasing Alspec products throughout the estate will be maintained.

To ensure a unified character, the buildings will be situated with appropriate street setbacks adhering to local design controls, featuring consistent signage, fencing, and public domain elements. Landscaping, particularly concentrated around human-centric areas like offices, building entrances, dominant setbacks, and car parks, is a key feature. Major services equipment, such as mechanical plant, waste zone etc. will be located in areas not visible from the street wherever possible and screened where required.

Regarding scale and orientation, the building sizes respond to market trends and align with the aspirations of nearby precincts including Western Sydney Employment Area & the Western Sydney Aerotropolis. Orientations are strategically chosen, prioritising a clean, corporate appearance along the street frontage with parking and office facilities facing prominent locations, while hardstands and loading areas are positioned to the side or rear.

The colour and material palette strategically focuses on the street frontage and significant viewpoints, employing high-quality materials. The integration of Alspec products is celebrated through elements such as extruded aluminium focal points, the infusion of colour and visual contrast along prominent facades, and the use of premium pre-finished panels in selected key locations on warehouse facades.

In an attempt to reduce the height and bulk of the high-bay component, materials and patterning have been introduced to break up its mass and vertical scale.

To enhance visual coherence, the rest of the built form is intentionally simplified. This design choice allows for formal, structured landscaping along the perimeter to take centre stage, with the warehouse serving as a consistent backdrop rather than a confused contrast of competing colours against the landscaping.

In line with the corporate identity of each user, colours, materials, and finishes are thoughtfully selected, ensuring a cohesive aesthetic throughout the estate. External walls are characterised by simple tones accentuated with feature materials, contributing to the overall landscaped backdrop, and enhancing the streetscape.

In summary, the concept design aims to set a benchmark for warehousing and logistics developments in the Alspec Industrial Business Park. The focus is on blending building, landscape, and location with thoughtful consideration for use, movement, and operation.

Better Placed Design Principles



Design Excellence Objectives



Better Fit

Context & Location

An investigation into the distinctive character of the local area, including prominent natural & built features, social, economic, and environmental conditions, the overall built environment.

The design responds intelligently and sensitively to these factors and makes a positive contribution to the streetscape, neighbourhood and neighbouring sites. The design has also considered the future desired character of the area and its interfaces.



Better Performance Sustainability

The design has considered a sustainable landscape in an urban setting and sought to improve and organise the existing urban realm and streetscape, responding to the desired future character.

The built form and function has considered practical and effective sustainable measures, relating to shading, ventilation, power generation and water.



Better for Community Legibility

The built form has a clear identity and its uses and components have been clearly defined for ease of operations and use. The overall design has enabled this legibility to compliment the design outcome.

Community

The design responds to the local community context, the wider social context. The function itself will create employment opportunity for the diverse local community and encourage diverse social interaction.



Better for People Safety

Safety has been considered in the design process to ensure risk and harm are minimised and safe behaviour and use are supported.

Aesthetics

The design has taken on board the design principles identified and produced a building that has resolved the challenges and embraced the opportunities to achieve an elegant coherent outcome.

The arrangement of built form and space has been considered in its context. The design has addressed the varying scales and form of the building in the selection and association of materials and colour. This has enabled a skilled integrated and considered design response.



Better Working Functionality & Quality

The design seeks to balance the needs of the user efficiently and effectively. Space and purpose have been designed to respond to a well thought through relationship and ease of what this spaces is used.

Space have been made as flexible and as adaptive as possible to minimise possible future modifications and maximise the life cycle of the development.

Material selections, durability and their relationships have been considered as has the detailing and weather implications to ensure the quality of the finished form and its life cycle into the future.

Landscape

The design recognises that landscape and building operate together and as an integrated and sustainable system.



Better Value Amenity

The design has successfully responded with the provision of a variety of uses, proximity to supporting amenity as well as optimising internal and external amenity for the users.



Better Look and Feel Built Form and Scale

The built form successfully responds to its setting and the future character and setting of the location.

Its prominent location on the Road intersection and Road exposure has been recognised, in addition the form and scale of the built form also responds to the functionality of the space, operation and integration with the surrounding use context so as to present a modern considered approach to the continuation of employment in the neighbourhood.



Native Landscape & Vegetation

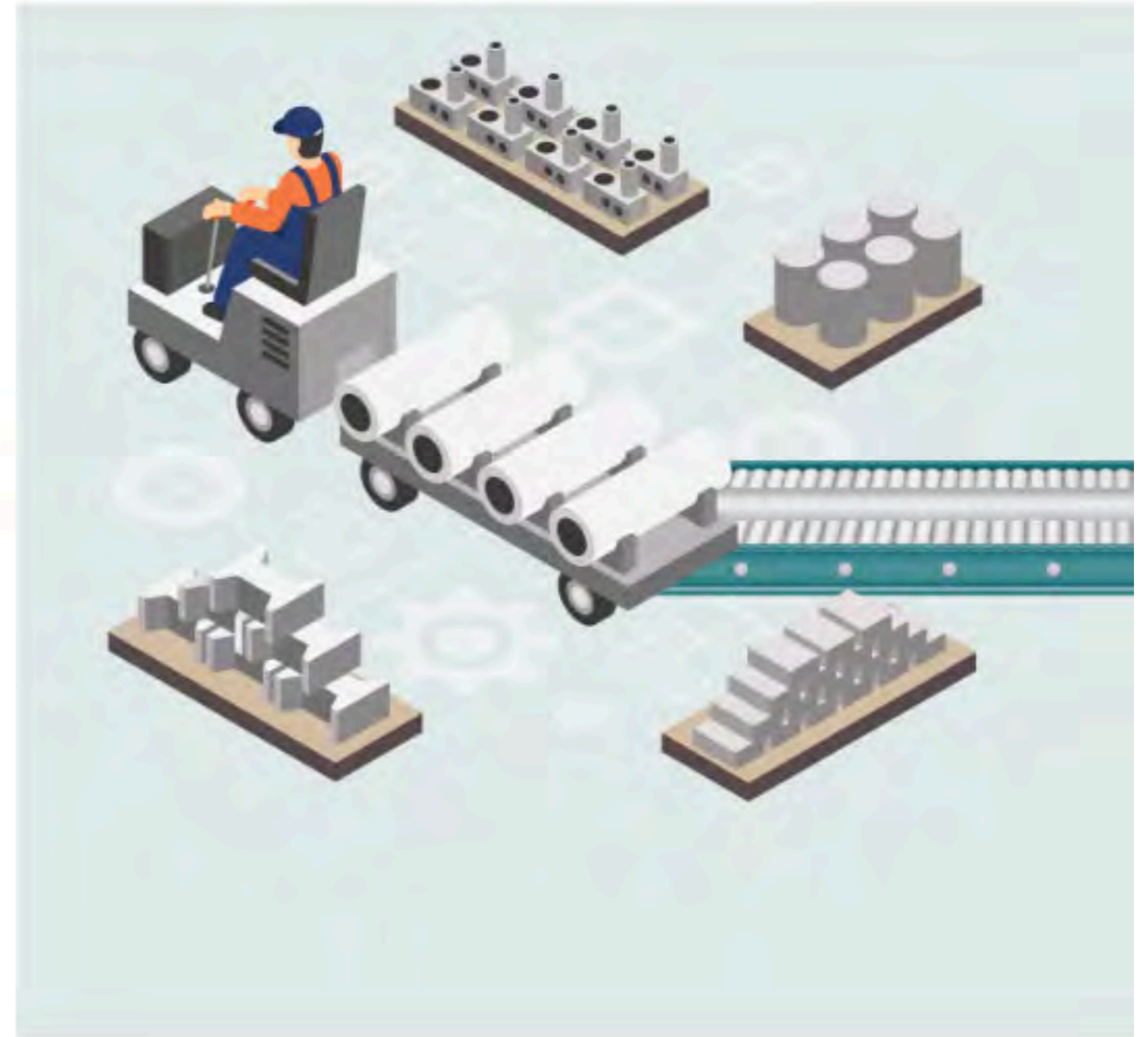


Source: GEOSCAPES

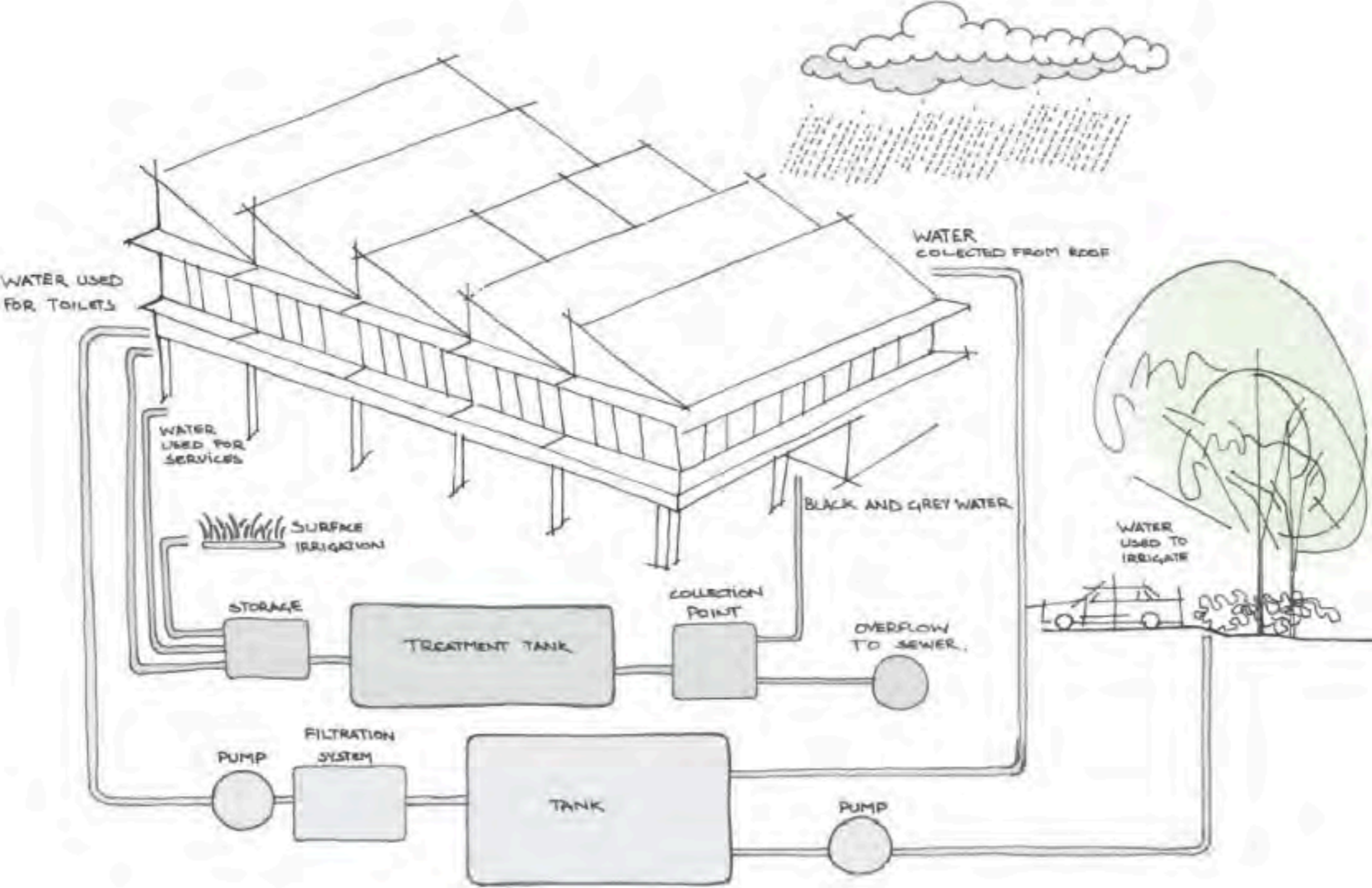


GREENCORE[®]

Low-Carbon Aluminium by Alspec



Rainwater Capture and Reuse



Design Proposition - Warehouse Façade Reference Imagery



Storage and Distribution Warehouse, AIBP Design Report June 2025 [2]

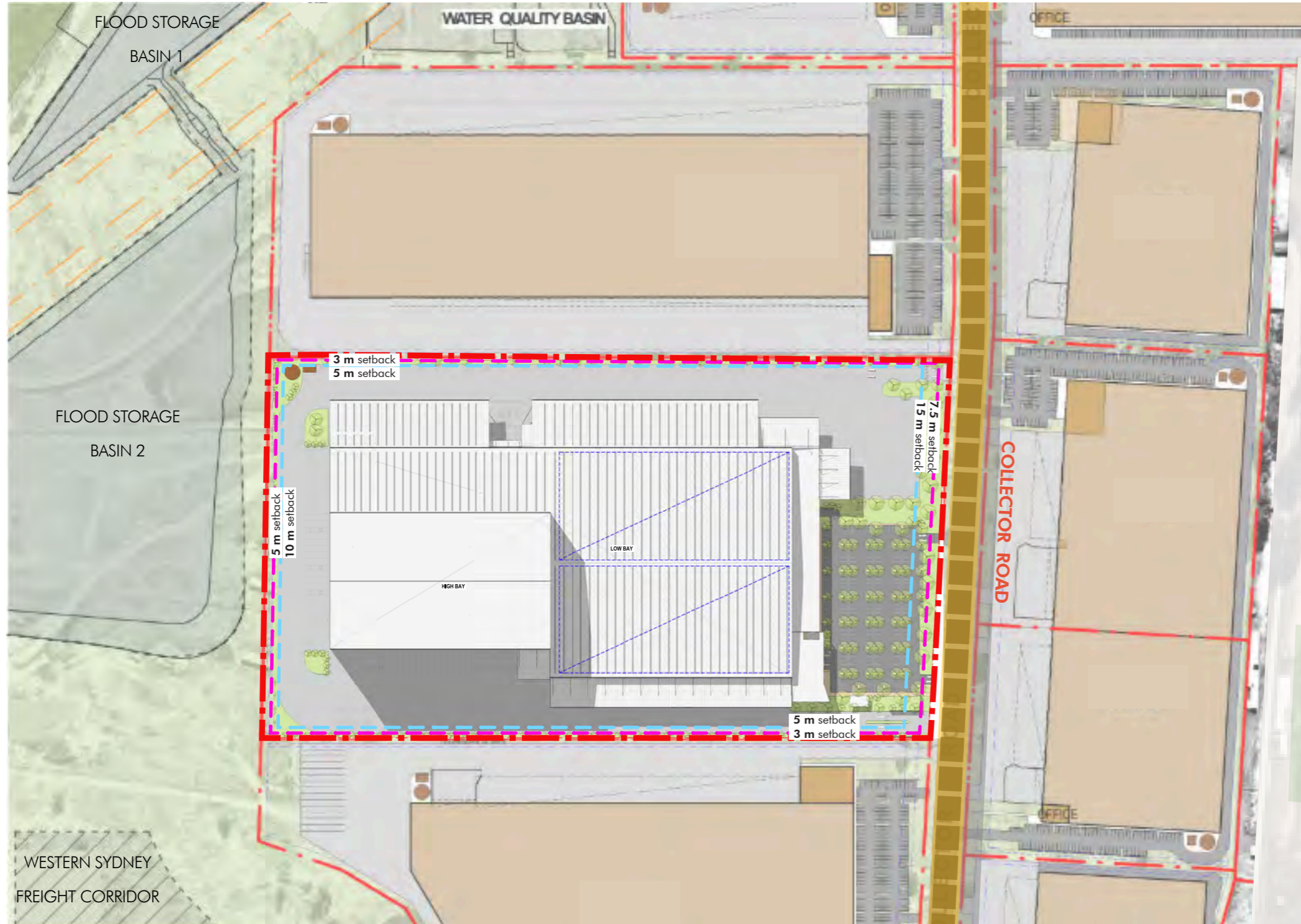


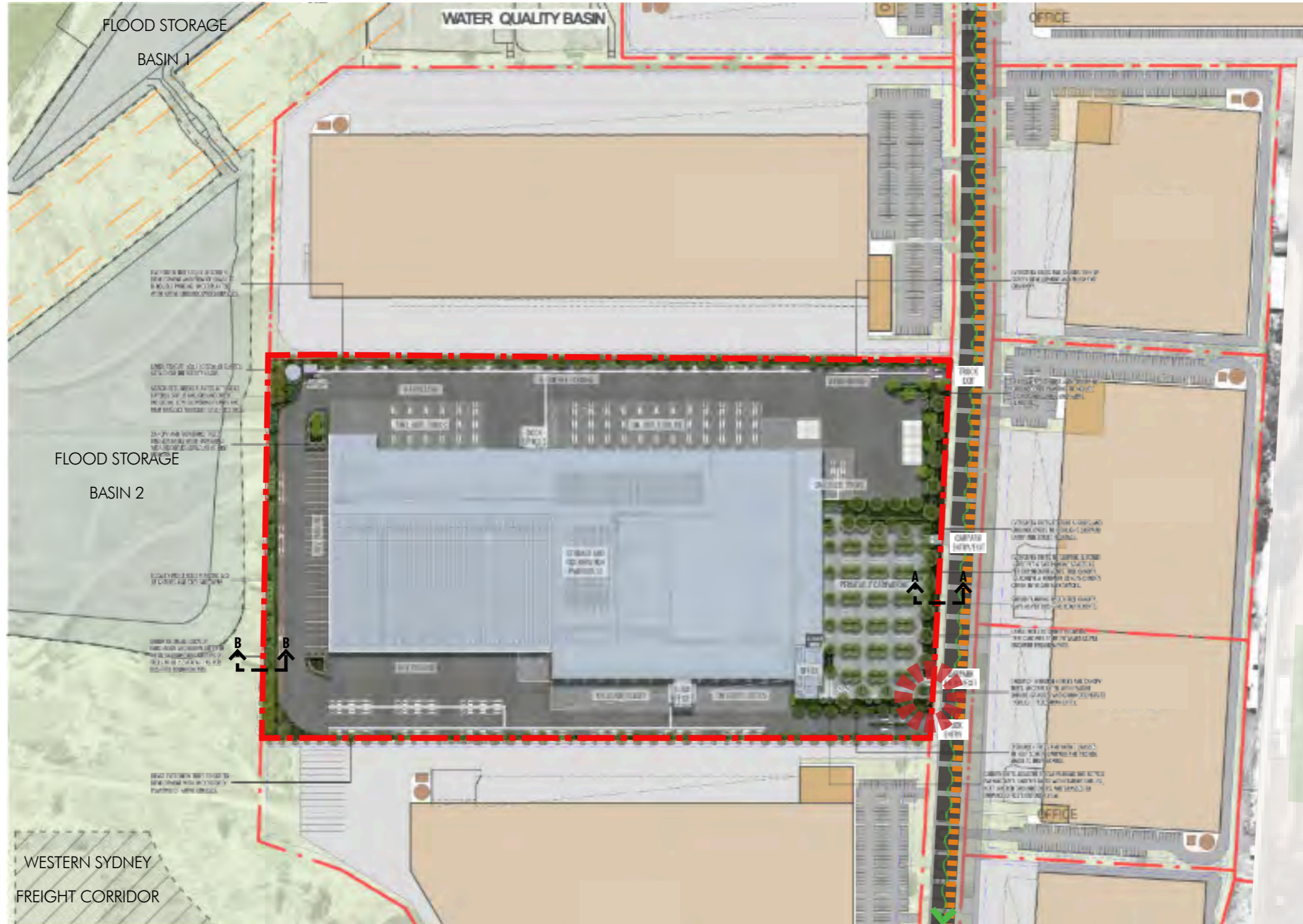
Design Proposition - Office Façade Reference Imagery










Setbacks and Street Frontage





The subject site is 230m (North to South) by 426m (East to West).

Entrances have been placed strategically along either end of building. The Patrons Lane entry serves as the major pedestrian and employee entries and the Collector Road truck entry serves as the key access and exit point for the hardstands to the North and South of the warehouse.

-  Site Boundary
-  Section Cut
-  Major Pedestrian Entry
-  Proposed Footpath
-  Proposed Bike path

Source: GEOSCAPES LANDSCAPE PLAN



Landscape and Public Domain

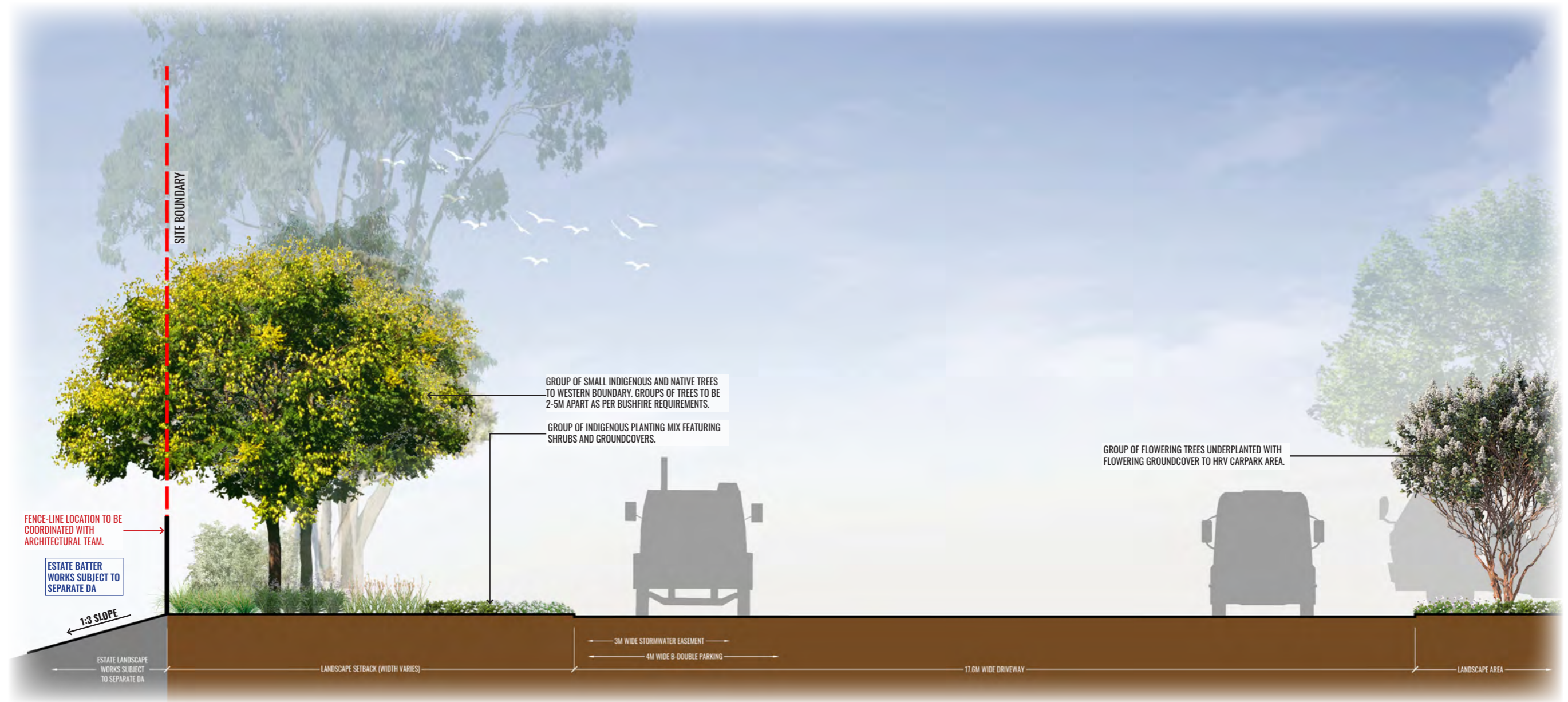


SECTION AA - STREET FRONTAGE
SCALE 1:40

Source: GEOSCAPES LANDSCAPE PLAN

--- Site Boundary

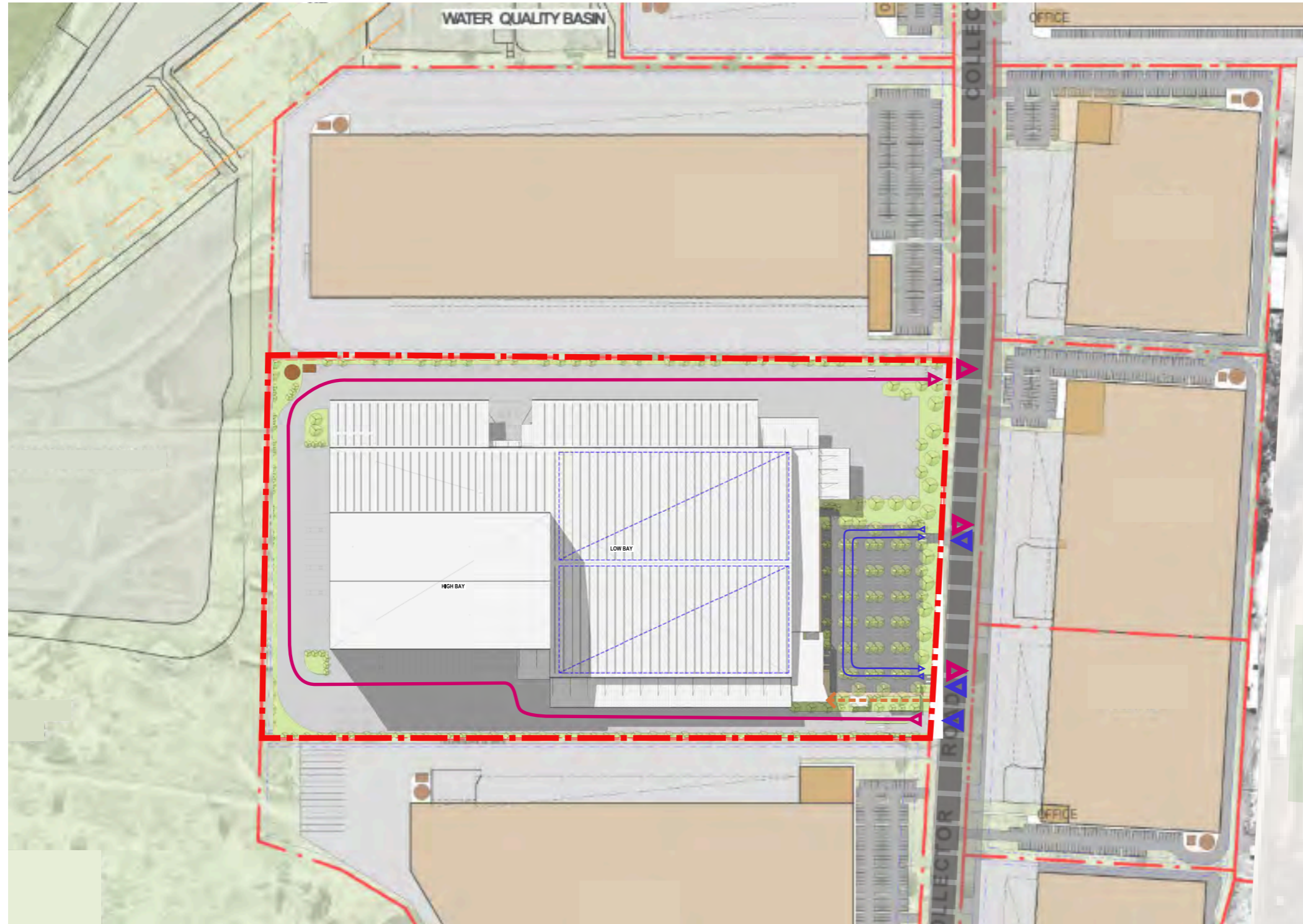









SECTION BB- REAR BOUNDARY
SCALE 1:40

Source: GEOSCAPES LANDSCAPE PLAN

--- Site Boundary

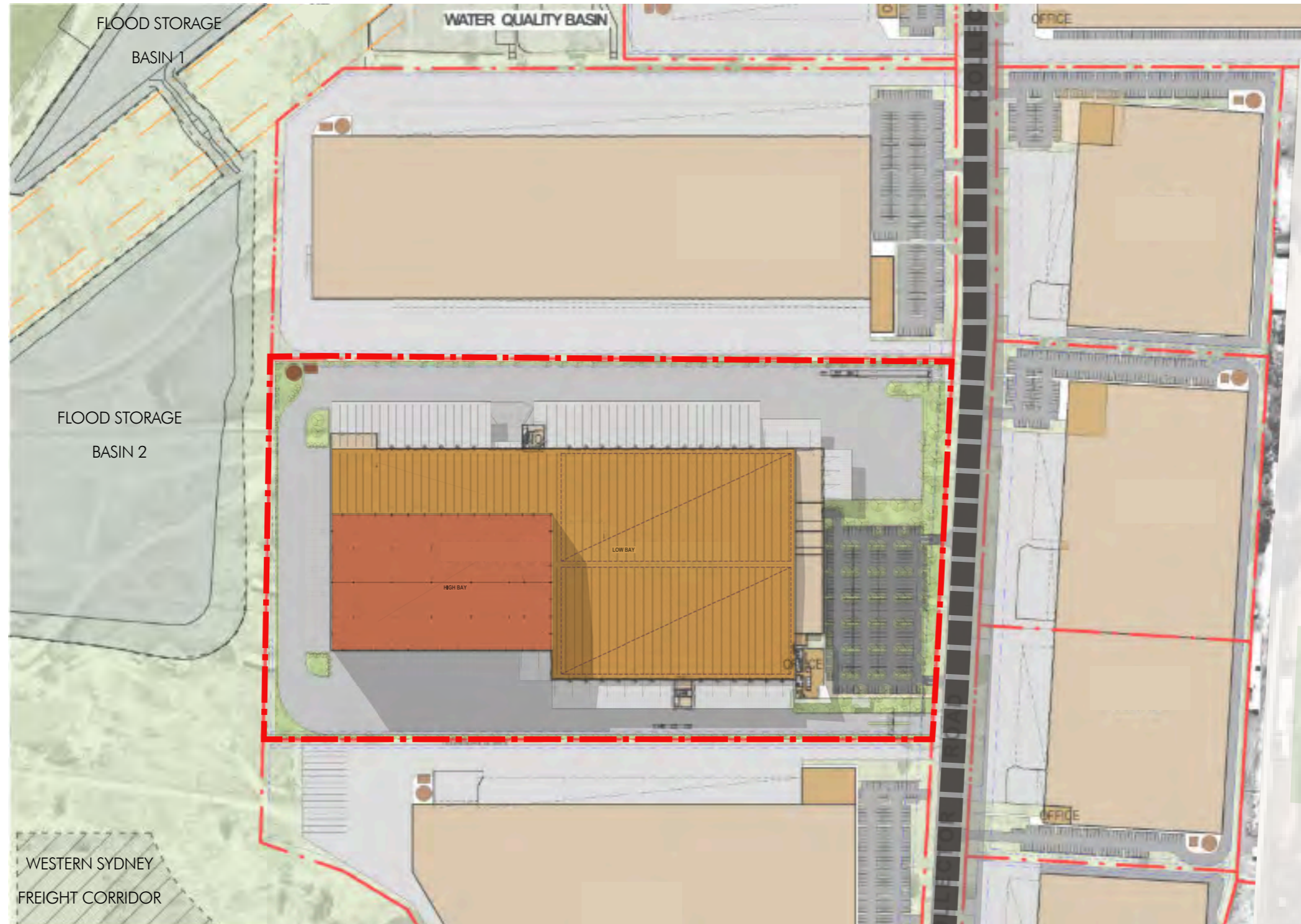


-   Entrance / Exit
-  Truck Movement
-  Car Movement
-  Pedestrian and Cyclist Movement





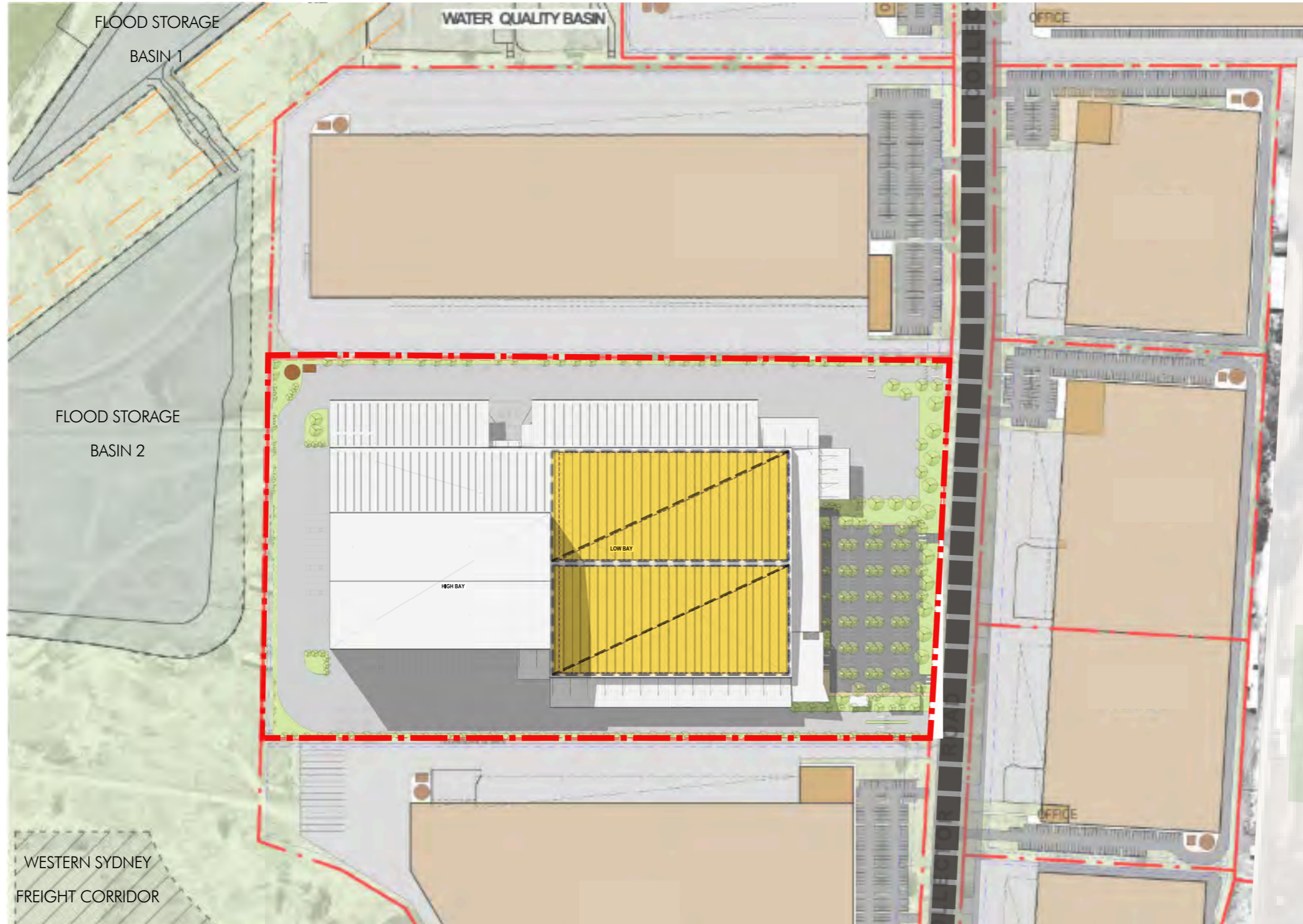


Building Height



The choice of building heights directly accommodates the requirements of the 'storage and distribution operation'. Two different heights are used in the proposal for the differing functions of those spaces and the heights those functions require.

-  RL 61.2m Roof Ridge
14.7m Roof Ridge Height
-  RL 85.5m Roof Ridge
39m Roof Ridge Height



The building design has looked to maximise the efficiency of the area it resides. Solar panels will cover the 3 northern roofs of the development, in order to be exposed to the most direct sunlight as possible, and therefore maximise the energy generated.

The entire roof structure has the capability to take solar.



Indicative extent of Solar Panel area



Warehouse Component - Materiality



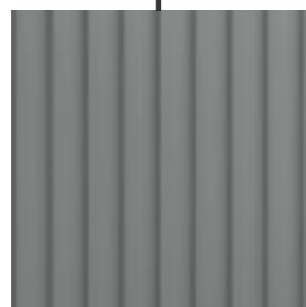
Profiled Metal Sheeting - 'Shale Grey'



Profiled Metal Roof Sheeting - 'Dover White'



Precast Concrete



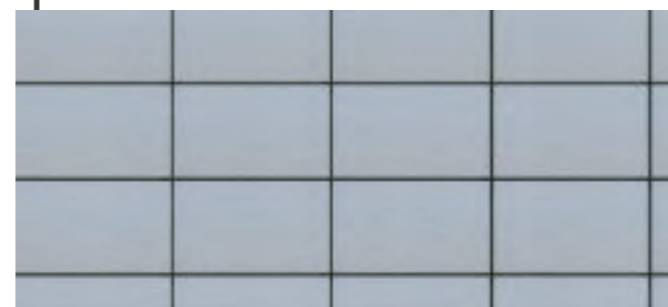
Metal Sheeting - 'Windspray'



Metal Sheeting - 'Dover White'



Metal Sheeting - 'Monument'



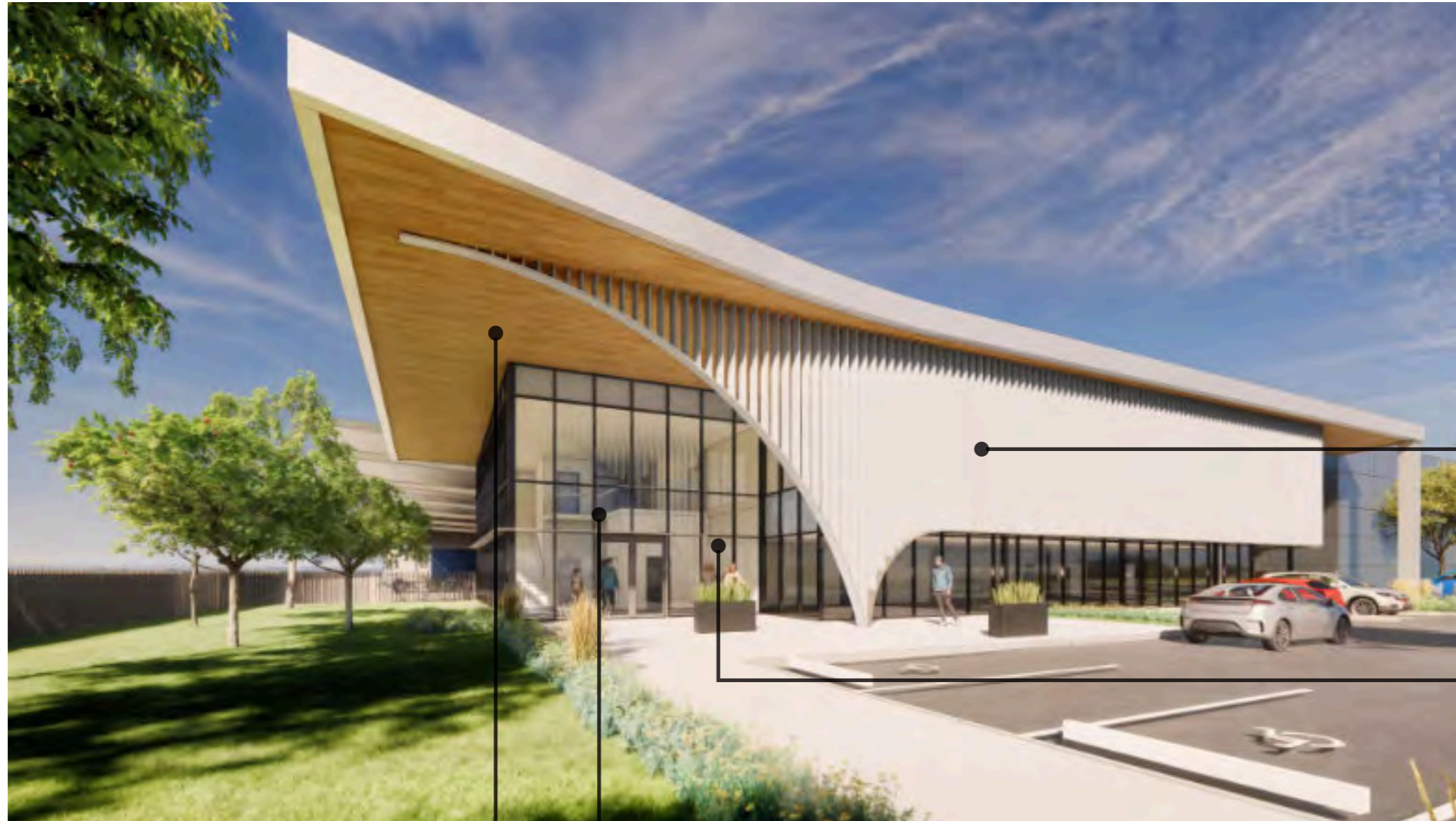
Aluminium panel - Alspec Proclad - 'Silver Ice Metallic'



Profiled translucent roof sheeting



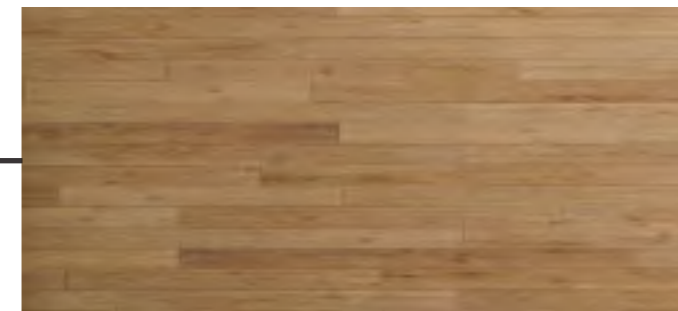
Ancillary Office - Materiality



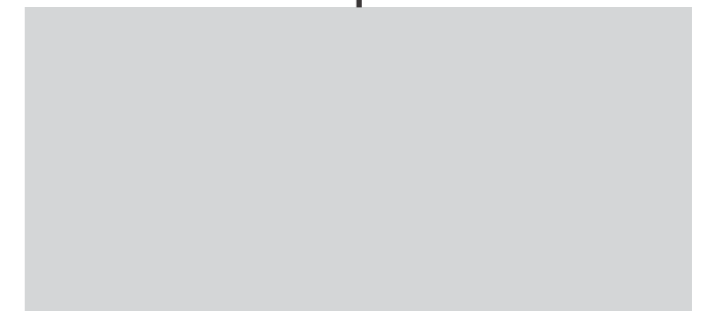
Aluminium Battens - Colour to match "Silver Ice Metallic"



Aluminium Window Frame - Color to match Colorbond Monument



Timber Soffit

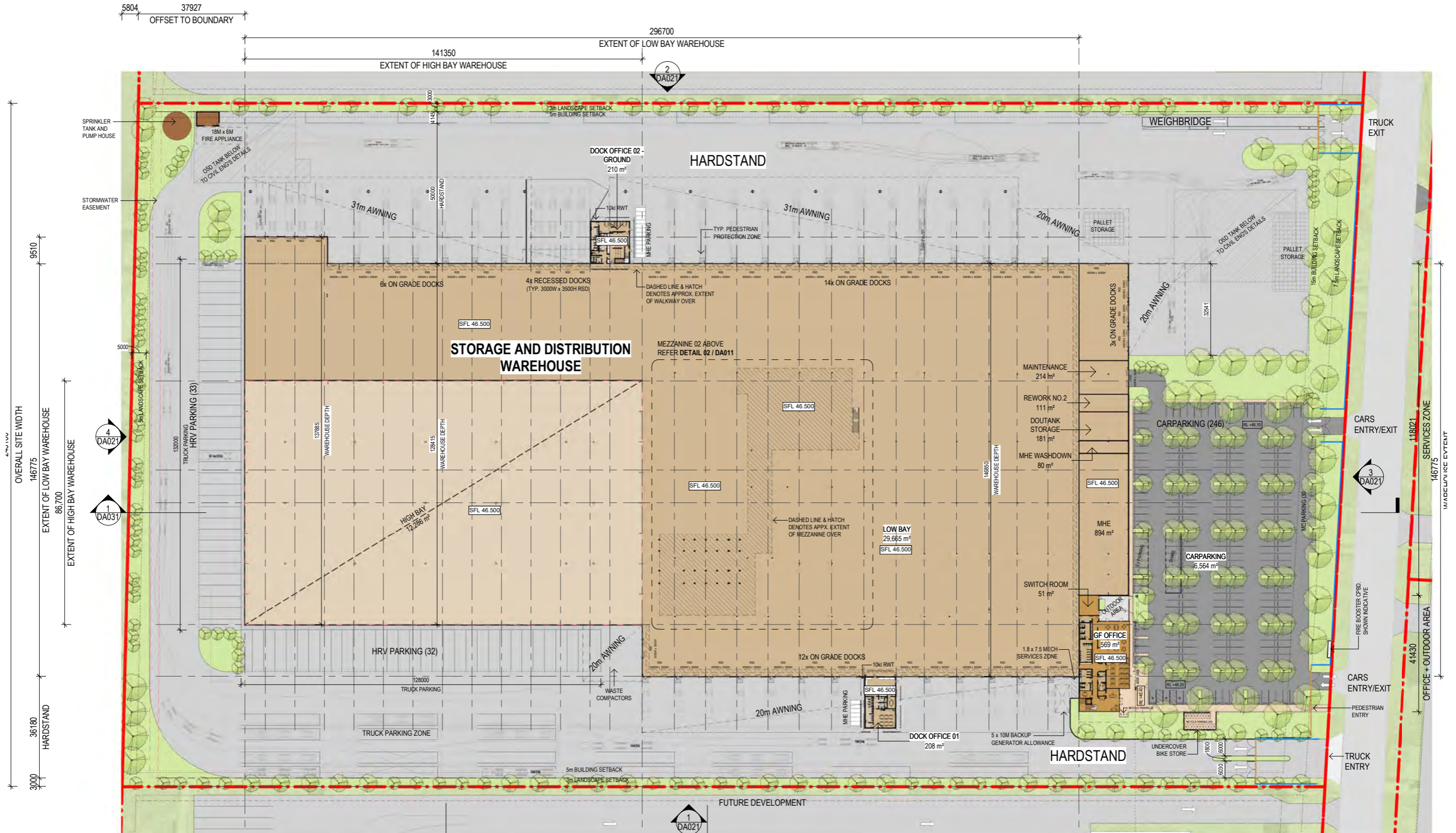


Clear Vision Glazing



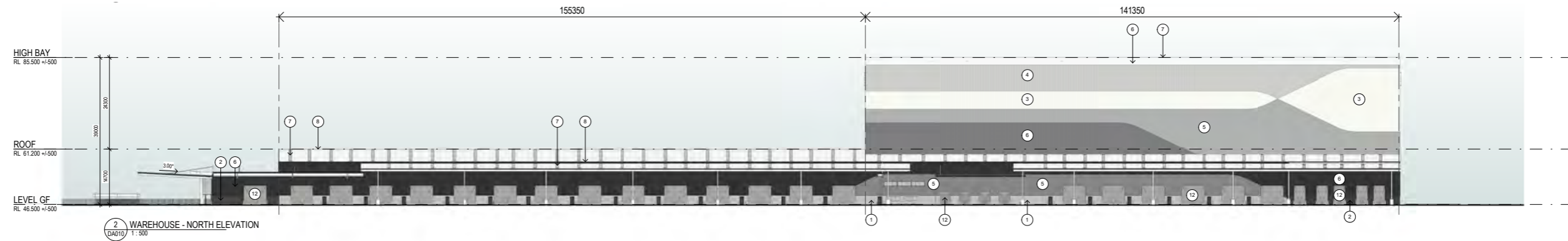
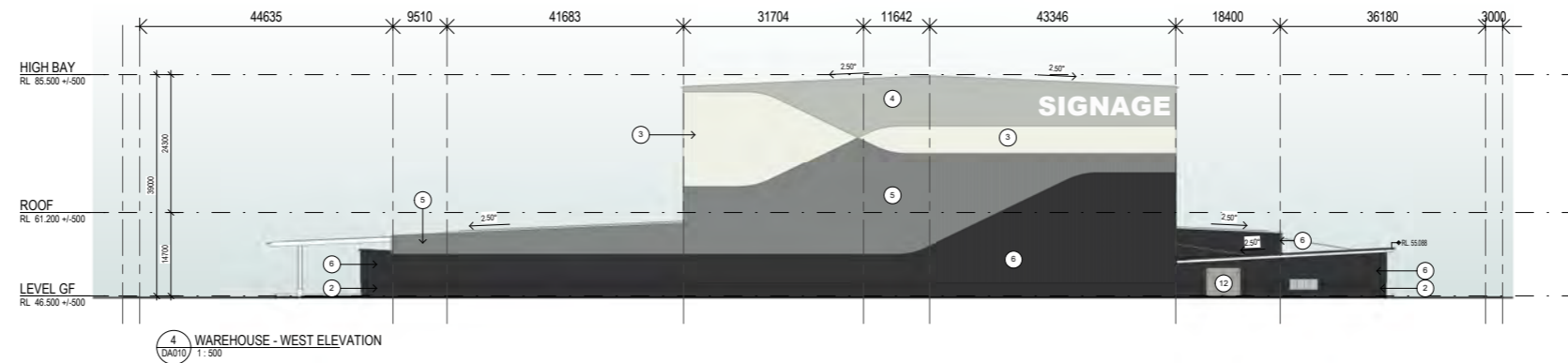
05

APPENDIX - ARCHITECTURAL DRAWINGS





ARCHITECTURAL DRAWINGS
Elevations

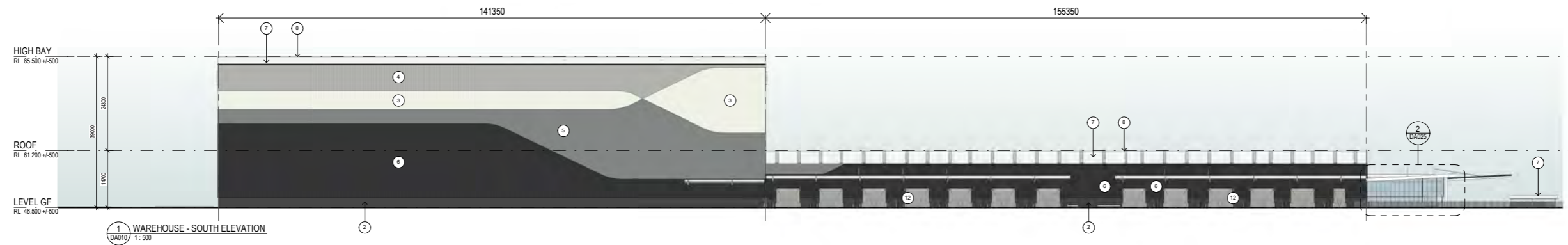
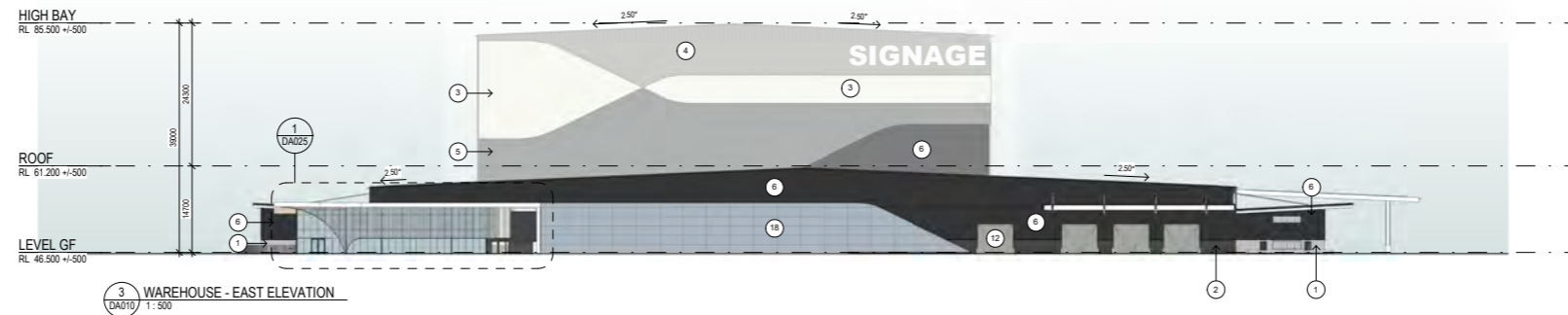


EXTERNAL FINISHES LEGEND

1	PRECAST WALLS/STRUCTURAL COLUMNS/STRUCTURAL FRAMING - PAINTED TO MATCH Colour: "Stone Grey", or similar	11	ROLLER SHUTTER DOOR Colour: "Monument", or similar
2	PRECAST WALLS/STRUCTURAL COLUMNS/STRUCTURAL FRAMING - PAINTED TO MATCH Colour: "Monument", or similar	12	ROLLER SHUTTER DOOR Colour: "Windspray", or similar
3	PROFILED METAL SHEETING Colour: "Stone White", or similar	13	AWNING DOWNPIPE CAPPING PAINTED TO MATCH
4	PROFILED METAL SHEETING Colour: "Stone White", or similar	14	ALUMINUM WINDOW FRAME Colour: "Monument", or similar
5	PROFILED METAL SHEETING Colour: "Wind Spray", or similar	15	ALUMINUM BATTEN FEATURE SCREEN TO FUTURE DESIGN
6	PROFILED METAL SHEETING Colour: "Monument", or similar	16	VERTICAL BATTEN SCREEN FENCE Timber
7	PROFILED METAL ROOF SHEETING Colour: "Stone White", or similar	17	TIMBER BOFFIT
8	TRANSLUCENT ROOF SHEETING	18	ALUMINUM PANEL, ALSPREC PROCLAD Colour: "Stone White", or similar
9	GLASS - CLEAR VISION GLAZING AND BACKWALL GLAZING	19	AWNING DOWNPIPE CAPPING PAINTED TO MATCH Colour: "Stone White", or similar
10	GLASS - BACKWALL SPANDREL GLAZING Colour: "Tinted Grey"	20	PROFILED METAL EXTRUSION Colour: "Bronze", or similar



ARCHITECTURAL DRAWINGS
Elevations

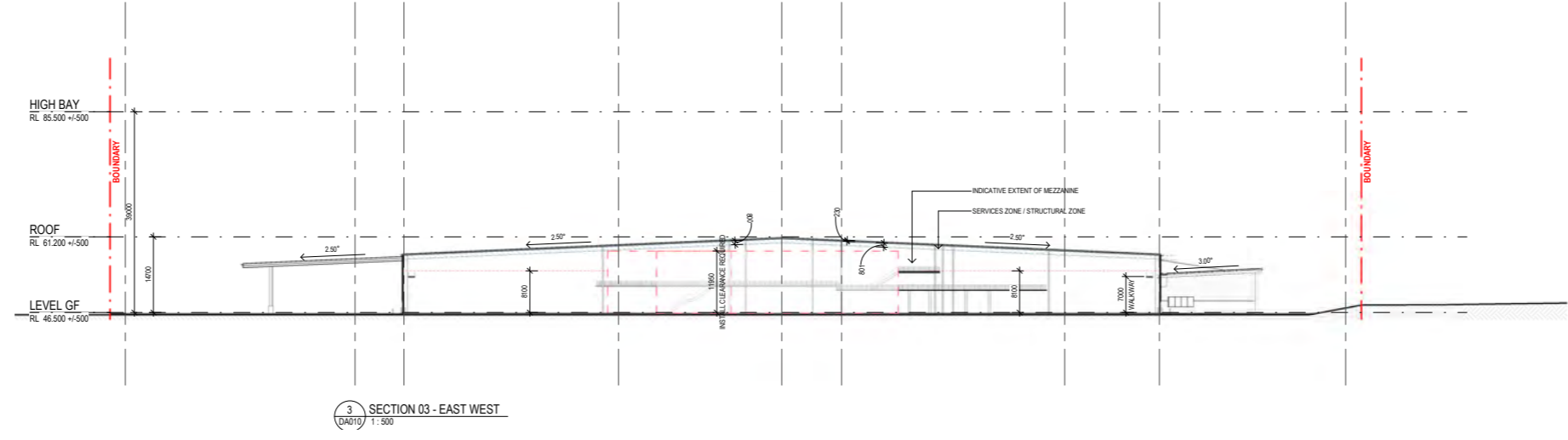
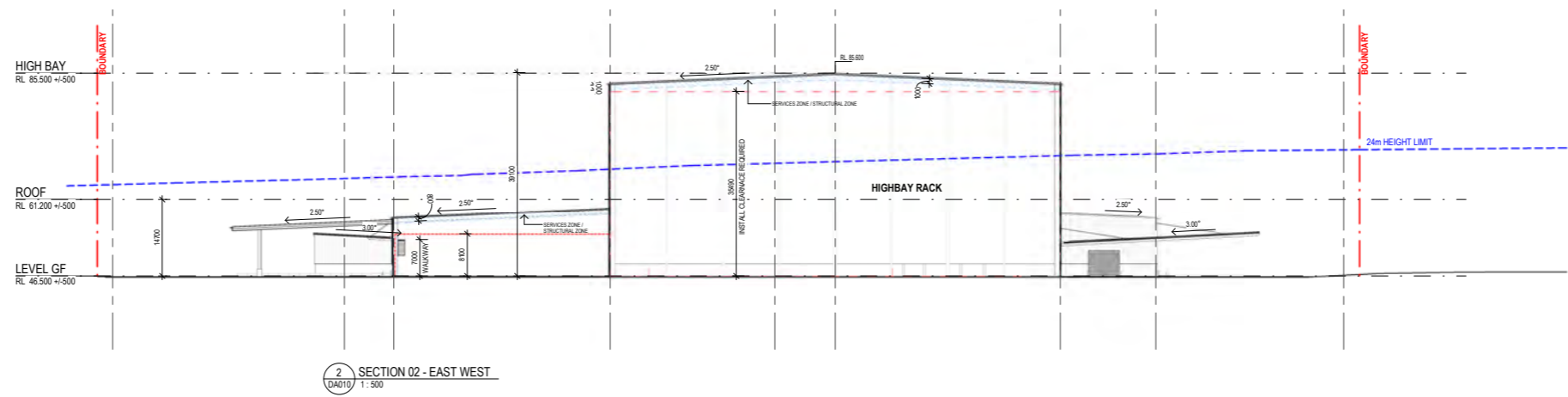
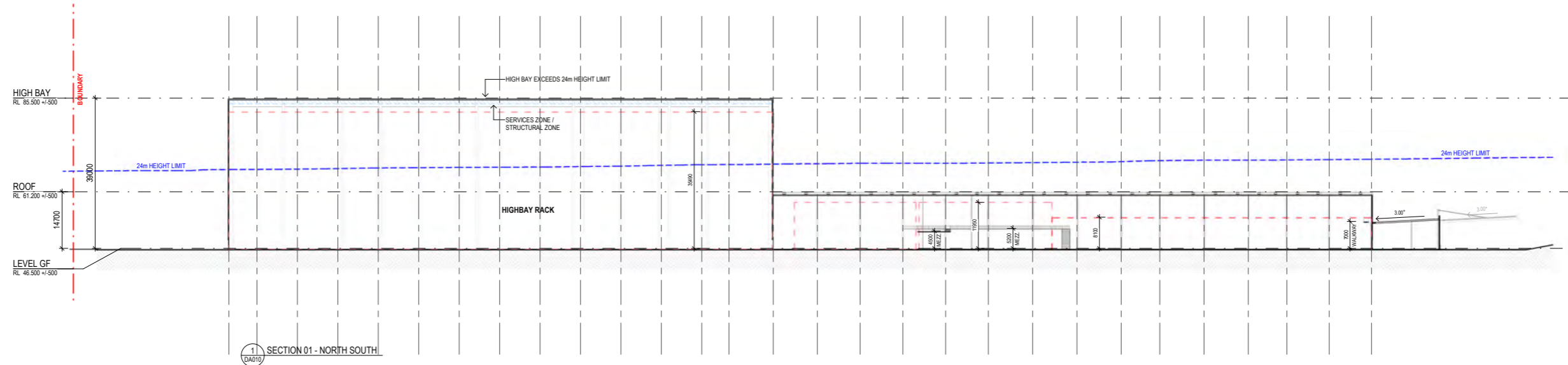


EXTERNAL FINISHES LEGEND

1 PRECAST WALLS/STRUCTURAL COLUMNS/STRUCTURAL FRAMING - PAINTED TO MATCH Colour: "Stone Grey", or similar	11 ROLLER SHUTTER DOOR Colour: "Monument", or similar
2 PRECAST WALLS/STRUCTURAL COLUMNS/STRUCTURAL FRAMING - PAINTED TO MATCH Colour: "Monument", or similar	12 ROLLER SHUTTER DOOR Colour: "White", or similar
3 PROFILED METAL SHEETING Colour: "Stone White", or similar	13 AWNING DOWNPIPE CAPPING Colour: "Monument", or similar
4 PROFILED METAL SHEETING Colour: "Stone Grey", or similar	14 ALUMINUM WINDOW FRAME Colour: "Monument", or similar
5 PROFILED METAL SHEETING Colour: "White Spray", or similar	15 ALUMINUM BATTEN FEATURE SCREEN TO FUTURE DESIGN Colour: "White", or similar
6 PROFILED METAL SHEETING Colour: "Monument", or similar	16 VERTICAL BATTEN SCREEN FENCE Timber
7 PROFILED METAL ROOF SHEETING Colour: "Stone White", or similar	17 TIMBER BOFFIT
8 TRANSLUCENT ROOF SHEETING	18 ALUMINUM PANEL, ALSPEC PROCLAD Colour: "Stone White", or similar
9 GLASS - CLEAR VISION GLAZING AND BACKWASH GLAZING	19 AWNING DOWNPIPE CAPPING Colour: "Stone White", or similar
10 GLASS - BACKWASH SPANDREL GLAZING Colour: "Tinted Grey"	20 PROFILED METAL EXTRUSION Colour: "Bronze", or similar



ARCHITECTURAL DRAWINGS
Sections











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