November 2022

Bays West Stage 1 Master Plan and Urban Design Framework

White Bay Power Station (and Metro) Sub-precinct

turf COX

NSW GOVERNMENT Planning & Environment

Acknowledgment of Country

Cox Architecture and TURF acknowledge the peoples of the Eora Nation as the Traditional Custodians of Gadi/Cadi and Wangal Country, on which this site is based and pay respect to their Elders past, present and future.

We recognise this place has a history over a millennia old and we want to celebrate Aboriginal peoples, their cultures, both ancient and contemporary and embrace their connections to the lands and waters.

We also acknowledge all Aboriginal peoples and communities who have lived on and cared for this Country.

Understanding Country

Ngeeyinee bulima nandiritah

(May you always see the beauty of this earth)

The stretch of Country now known as Bays West has been known for millennia as gari gurad/nura (saltwater Country) and nattai gurad/nura (freshwater Country). This ancient Country is celebrated for vast expanses of garaban (rock and sandstone) which in some places provides shelter, gibbaragunya (stone/cave shelters), and in other places creates yiningmah (steep cliffs) where ceremony can be performed privately without uninitiated onlookers.

It is also here on this Country that we recognise the changing and evolving nature of Country and the ways in which local communities and ecologies have responded and adapted to these changes throughout time. We acknowledge that Country is a living, breathing entity with an enduring spirit and it is this spirit that informs the work we undertake here today, and into the future.

Welcome to Country provided by Shannon Foster, D'harawal eora Knowledge Keeper & registered Sydney Traditional Owner (ORALRA).

The Bays West Place Strategy includes stories of the Bays West location specifically. These are a small selection of the D'harawal stories of this place. They are shared by a contributor to the document, D'harawal Knowledge Keeper Shannon Foster, whose Ancestors kept these knowledges alive, and whose Elders and Knowledge Keepers still celebrate, live by and share them today.

The cultural Intellectual Property (IP) of all Aboriginal peoples, including the cultural IP of these stories, remains with the people they belong to and can never be vested or assigned. In this case the stories belong to the D'harawal people of the Sydney region who know themselves as Iyora here, and these stories may not be duplicated or used without the express permission of Sydney D'harawal Elders or Knowledge Keepers.

The stories shared are just the starting point. There are other stories, and there are many layers of these stories that remain to be unpacked. There may also be other Ancestral stories of this location from other local peoples, and hearing them will involve the effort and time to learn in culturally appropriate ways.

Contents

1.0 Introduction

The Bays West Place Strategy sets out a vision for a connected, vibrant and activated precinct – a new kind of Sydney urbanism that respects and celebrates Country, drawing on natural, cultural, maritime and industrial stories to shape an innovative and sustainable new place for living, recreation and working.

The delivery of the Metro Station by 2030 will be the first step in the renewal of the precinct. To support the delivery of the Metro Station, Cox Architecture and Turf Design Studio have been engaged by the Department of Planning and Environment to prepare the Bays West Stage 1 Master Plan and Urban Design Framework for the White Bay Power Station (and Metro) Sub-precinct (referred to as 'the Site'). This Master Plan will inform the future rezoning which will unlock the future for White Bay Power Station and the land around the new Bays Metro Station (The Bays station).

Sydney Metro is currently progressing an Environmental Impact Statement for the Metro West line. Government will continue to work towards ensuring these processes are aligned to realise the future of Bays West.

All proposals and initiatives within the following report are indicative and are subject to appropriate approval pathways and funding commitments for delivery.

References to the Master Plan relate to the Urban Design Framework and Public Domain Concept Plan within this report.

The report includes a number of options for elements which are not yet fixed or agreed, including locations and sizes for community infrastructure and the street network and locations for kiss'n'ride, parking and bus interchanges.

Figure 1: Aerial view of Bays West and context. Courtesy DPE

1.0 Introduction

1.1 Purpose of this Report

The purpose of this report is to incorporate the urban design and technical analysis carried out to date in to the Bays West Stage 1 Master Plan and Urban Design Framework (UDF) for the initial stage of Bays West, being the White Bay Power Station (and Metro) Sub-precinct, as defined in the Bays West Place Strategy.

The UDF and Master Plan is to enable the implementation of the Bays West Place Strategy for this Site and inform requirements for rezoning, development controls and supporting infrastructure for the Site.

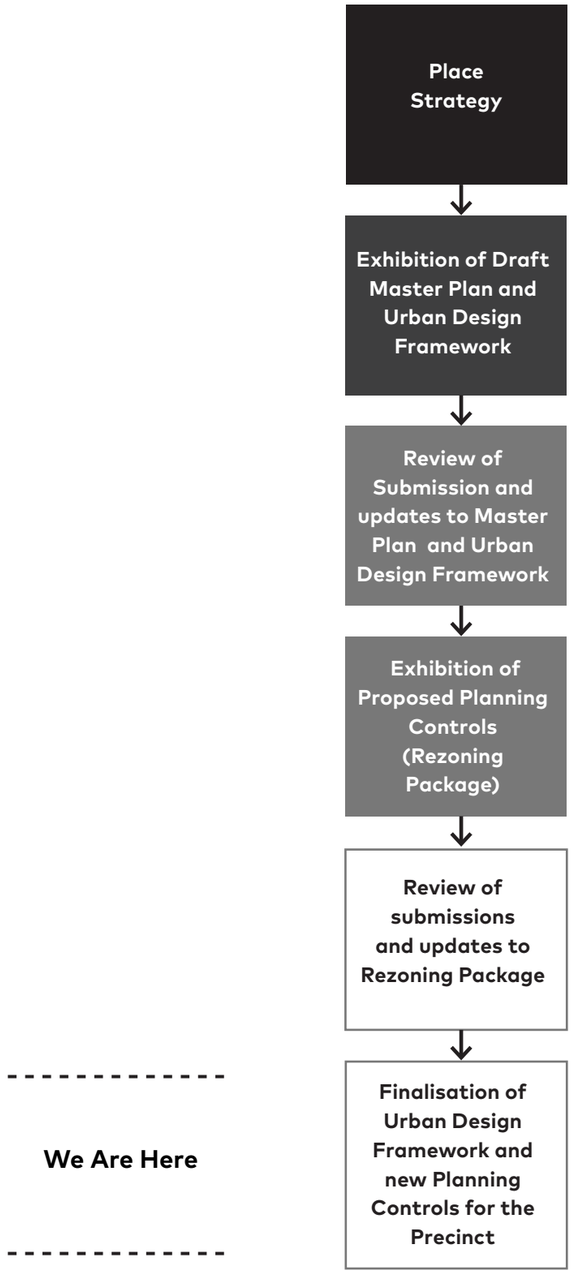
This report seeks to;

- Identify urban design principles and parameters that will underpin the proposed development including how Country has been embedded;
- Provide a site and context analysis that identifies opportunities to be considered;
- Demonstrate that potential future uses, built form and landscape can achieve high quality place outcomes;
- Propose building heights, building envelopes, and draft development principles to be incorporated into future planning controls at a later stage;
- Assess impacts on views to significant spaces and landmark structures such as the key view corridors associated with the state heritage listed White Bay Power Station (WBPS).

Future studies will consider the preparation of the Port Innovation and Integration Plan and the current and future port and working harbour uses and their integration with the future of Bays West.

All proposals and initiatives within the following report are indicative and are subject to appropriate approval pathways and funding commitments for delivery.

1.2 Project Timeline



1.3 Stakeholder and Community Engagement

1.3.1 Summary

The draft Bays West Place Strategy was made available for public comment on the NSW Government planning portal from 22 March 2021 to 29 April 2021.

During this consultation period, stakeholders and community members were invited to attend a two-hour, face-to-face community information session and two online information sessions. Written comment was also invited via a survey, Social PinPoint, email, webform or post.

Just over 900 submissions were received from stakeholders within government, not-for-profit, peak bodies, local organisations and community sectors; diverse stakeholder groups such as local councils, maritime organisations, local societies and advocacy groups; along with individuals from the local community and greater Sydney.

The draft Urban Design Framework and Public Domain Concept Plan was exhibited for public comment in May 2022 and again in August 2022. Consultation also included targeted First Nations engagement. A separate summary of submissions report has been prepared which identifies the key submission issues raised by the community. The feedback of the community and stakeholders has informed the further refinement of the Stage 1 Master Plan. A wide variety of contributions, relevant to the amended site boundaries and the rezoning process, have been incorporated in to this revised Urban Design Framework and Public Domain Concept Plan.

These amendments include:

- Removal of the Robert St Sub-precinct from the master plan.
- Refinement of the street network, including a revised location of the Robert Street connection;
- An amended Stage 1 site concept plan including changes to the public domain and built form adjacent to Robert Street; and
- Resolution of the proposed bus interchange access.

1.3.2 Directions

A clear set of directions was drawn from the stakeholder and community engagement process on the draft Bays West Place Strategy. Of particular relevance to the UDF and Master Plan are the following themes and directions;

- **Land use and function:** Greater clarity was requested on employment opportunities, affordable housing, port and maritime activities and managing conflicting land uses.
- **Design of spaces and places:** Support for open green space and the promotion of biodiversity and improved water quality with greater detail required on various aspects of the design, including building heights and density requirement, open space, community amenity, car parking and carbon neutrality.
- **Transport and movement:** A popular theme, identifying priority to ensure good connectivity surrounding and within the precinct. Concerns regarding increased traffic were reflected in the consistent support to improve walking, cycling and public transport options.
- **Heritage and culture:** Commended for its inclusion of heritage as a key focus, with acknowledgement of the demonstrated respect for industrial heritage, maritime identity, working harbour and local First Nations culture.

The preparation of the UDF and Master Plan has been informed by, and includes more detail on, these Directions and feedback raised in the stakeholder and community engagement sessions and submissions.

Figure 2: Word cloud of common phrases and themes within submissions. Bays West Draft Place Strategy Consultation outcomes report. July 2021

"Government ownership of much of the land in the Precinct offers a real opportunity to deliver high levels of social and affordable housing. However, as outlined in this submission, further work is needed to fully consider how adequate provision will be secured."

Peak Body

"Country is the wellspring from which all knowledge originates. It holds information, innovations, stories and secrets – from medicine, engineering, ecology and astronomy to social mores on how to live, and social organisation, including moiety division and kinship systems....Songlines are foundational to our culture – to what we know, how we know it and when we know it. Songlines are our library, our archive from which all subjects are derived, including the knowledge of the design, orientation and siting of our built structures, as well as the design of objects such as boomerangs and fish traps, with their ancestral dimension."

Margo Neale, Senior Indigenous Curator National Museum of Australia

2.0 Site Appreciation and Opportunities

The analysis, distillation of prior reports, lessons from relevant case studies, and resulting urban design opportunities and constraints for the Site have been driven by the Bays West Place Strategy.

Figure 3: Community use of White Bay Cruise Terminal with container ship at berth. September 2021

2.0 Site Appreciation and Opportunities

2.1 Bays West Place Strategy

The following pages are extracts from the Bays West Place Strategy that, in part, sets the strategic and policy context for the White Bay Power Station (and Metro) Sub-precinct Master Plan.

The Bays West Structure Plan sets out an overarching and integrated system framework for the future of Bays West. It articulates the primary land use, open space, and connectivity network structures that have been developed for the precinct to capitalise on its place character and support its long-term renewal.

The structure plan is informed by the vision and directions established for the precinct. It identifies the key strategic elements that will drive the transformation of Bays West, while allowing a staged delivery. The structure plan demonstrates how the precinct could achieve its potential.

The structure plan connects the precinct with its adjacent neighbourhoods and will facilitate access to water and travel through the precinct. The plan encourages a diversity of land use, high public amenity, and embedded infrastructure to support adjacent and future communities.

The structure plan is presented as an aspirational end-state representation of the precinct's urban renewal. It is a broader framework for the precinct on which further, more detailed investigations, into for example, optimal land uses and urban form, will be based.

Extract from Bays West Place Strategy (November 2021) Page 58.

The Structure Plan elements on the opposite page show the gradual realisation of the vision over time up to 2040 and beyond.

The Bays West Initial Stage Structure Plan 2030 shows the Bays West precinct when the Metro Station opens. The planning will influence future opportunities in adjacent Sub-precincts, and therefore a holistic precinct-wide approach is required.

At the completion of Stage 1, it is anticipated the following will have been achieved:

- The Bays station open and operational
- The White Bay Power Station (and Metro) Sub-precinct is fully planned and under development
- The curtilage of the White Bay Power Station is integrated with the rest of the Site
- Active travel connections will have been investigated and implemented where feasible, with links through Bays West back into Balmain and surrounding areas including Pyrmont Peninsula
- Rozelle Parklands is constructed and open to the public.

Key elements of the structure plan

Ports & working harbour zone
The structure plan outlines a transition of existing ports and maritime industries within the precinct into consolidated land and water zones. The location and arrangement of these zones are best suited to retain, optimise and grow existing operations, unlocking alternative use opportunities for the precinct.

Vessel berthing zone
The strategically important deep-water berthing zones within the precinct have been largely retained for use at White Bay, adjacent to the dedicated land zones. In Rozelle Bay, the water zones offer shallower berthing, facilitating a mix of recreational vessels along with other maritime service and contractor vessels.

Integrated ports facility with public domain
The eastern end of Glebe Island has some of the deepest water berths available and are essential for vessels with a deep draught. An important port waterfront operational interface will be maintained at this location. Opportunities to create innovative solutions for open space and port facilities.

Proposed active transport connection
A prioritised network of direct and desirable commuter links connect the precinct to its adjacent neighbourhoods. The network establishes local and regional connections with a series of informal pathways overlayed for recreational movements, promoting walking and cycling as the precinct's default mobility choices.

Proposed zone of development
The structure plan marks out areas within the precinct capable of supporting new development and envisages a mixed-use renewal with vibrant and diverse building outcomes. Where existing port uses occur, may include innovative and sustainable port and working harbour development.

Integrated development/ports & working harbour
Port and working harbour operations to be retained and integrated into future development. Critical Transport for NSW operations in Rozelle bay to be retained.

Development zone with greater height potential
This shows locations where future taller building clusters could be considered. Future development scale and intensity would be responsive to existing site characteristics, calibrated to consider amenity impacts to adjacent neighbourhoods and ongoing land uses.

It will also allow key views to be preserved and embed a layer of flexibility to facilitate the evolving needs of the local community and wider Sydney region.

Key heritage landmarks
There are a series of key heritage landmarks within the precinct, which act as destination markers and speak directly to the place narrative and history of Bays West. White Bay Power Station, Glebe Island Silos, and the Anzac and Glebe Island bridges set up a gateway sequence and provide significant opportunities for adaptive reuse and public access/ interaction.

Road structures
A primary road structure is set out in the structure plan, which promotes a street network that aligns with the desired movement and place outcomes for Bays West. A hierarchy of street typologies has been established to support prioritised and local movements, minimise opportunities for through traffic, and deter resident and worker dependence on private vehicles.

Proposed key public domain
An evenly distributed and interconnected series of key public domain zones have been established across the precinct. These are typically located to incorporate either natural features or heritage artefacts, maximising public benefit and amenity of these elements.

Foreshore promenade
The precinct's harbour foreshore will be progressively unlocked, and a new foreshore promenade established, reclaiming public access and delivering recreation opportunities. The promenade will stitch together key public domain zones and connect into the broader harbour foreshore network. Where and when required, public access will be managed to give priority to port and maritime uses whilst allowing for interesting and authentic access experiences.

Heritage tracings
Embedded within the grain of the structure plan are a series of heritage tracings. These highlight key opportunities to integrate places stories and interpretations overlays into the precinct's renewal narrative, highlighting its former and current uses, and promoting the preservation of existing artefacts.

Bays West Structure Plan 2040 and beyond

LEGEND

- Bays West site boundary
- Light rail station
- Light rail route
- Future 'The Bays' Metro Station
- Future 'The Bays' Metro Station box
- Proposed active transport connection
- Potential future active transport connection
- Proposed bus stops/ interchange
- Key heritage landmarks
- Proposed key public domain
- Key landform
- Foreshore promenade
- Proposed promenade linking connections
- Occasional foreshore promenade access (non-ship days)
- Existing foreshore promenade
- Proposed zone of development
- Development zone with greater height potential
- Integrated development/ports & working harbour
- Public domain – Rozelle parklands
- Integrated ports facility with public domain
- Ports & working harbour zone
- Vessel berthing zone
- Road structures
- Heritage tracings

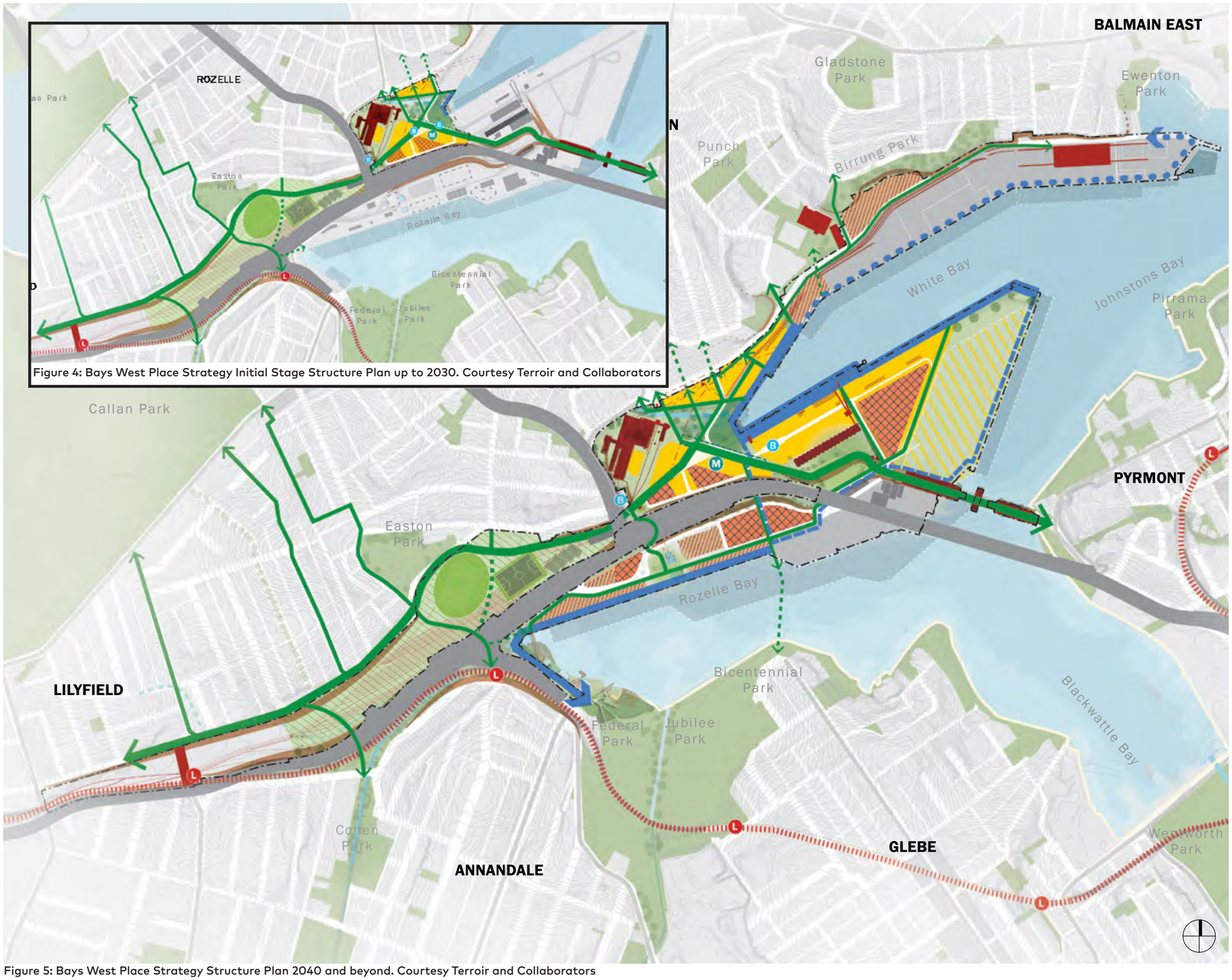


Figure 4: Bays West Place Strategy Initial Stage Structure Plan up to 2030. Courtesy Terroir and Collaborators

Figure 5: Bays West Place Strategy Structure Plan 2040 and beyond. Courtesy Terroir and Collaborators

2.2 Bays West Place Strategy Context

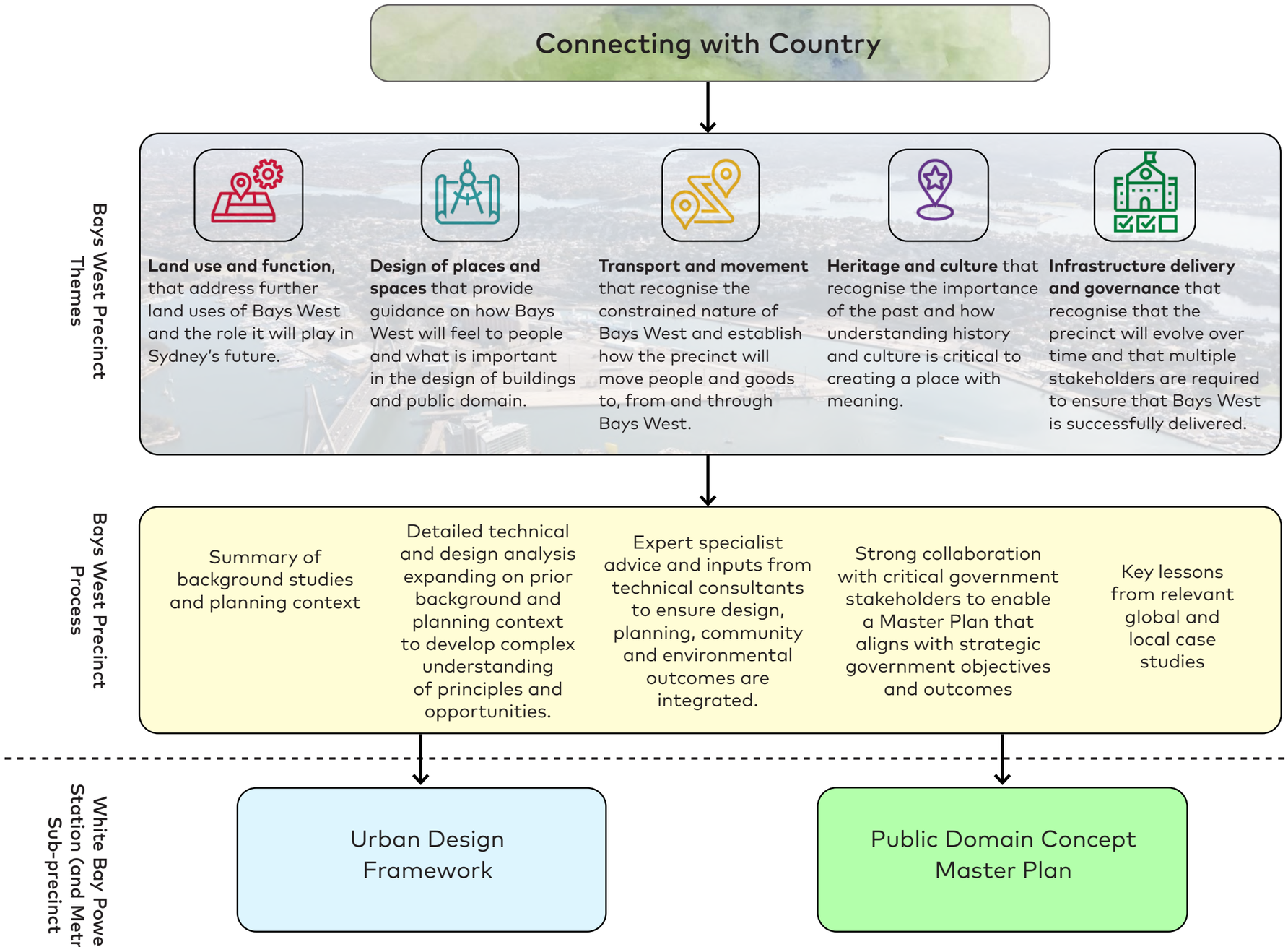
2.2.1 Enabling Themes

The 14 directions outlined by the Place Strategy, grouped 5 key enabling themes, noted adjacent, speak to the past, present, and future of Bays West, and address connectivity, productivity, liveability, and sustainability.

Rather than acting as a stand-alone driver, Connecting with Country underpins all of the themes and their associated directions.

All phases of the activation of the Bays West Sub-precincts will prioritise the recognition and protection of Country and its significance within Aboriginal cultures, in historical, contemporary and future contexts.

These themes have been distilled, with a focused lens of Connecting to Country, to ascertain the specific opportunities relevant to the Sub-precincts and to inform the UDF and Master Plan.



2.2.2 Big Moves

Repurpose White Bay Power Station to become a focal point of the precinct.

Figure 6: Courtesy of Terroir with collaborators.

Reinstate a crossing from Bays West to Pyrmont to create more convenient and direct active transport connections.

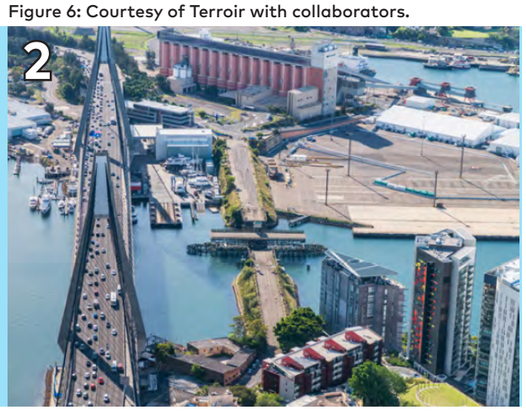


Figure 8: Glebe Island Bridge. Courtesy of DPE

Connect community to water, while recognising and supporting the working harbour and port operational requirements.

Figure 10: Glebe Island. Courtesy of DPE

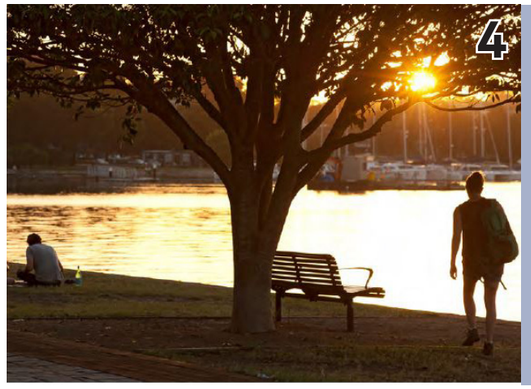


Figure 7: Community amenity. Courtesy of DPE

Deliver a significant, connected, activated public open space near the water at an early stage.

Figure 9: Bays West Metro. Indicative subject to design development. Courtesy of Transport for NSW

Figure 11: Foreshore walk. Courtesy of DPE

Enable a world-class harbour foreshore walk.

The 5 themes and directions outlined in the Place Strategy are further backed by 6 big moves.

Each big move is a key intervention identified to realise the full potential of the precinct.

Supported by the public engagement and exhibition process, their implementation will benefit from ongoing community consultation backed by an all of government approach.

While identified at the broader Bays West precinct scale, each Big Move is translatable to the White Bay Power Station (and Metro) Sub-precinct. These Site specific opportunities have been captured in the following sections of the report.

2.3 Bays West Place Strategy Connecting to Country

2.3.1 Connecting to Country Framework

A fundamental principle for this project has been to embed Country and its connections in all aspects of the project strategy, design and implementation. Key knowledge keepers including Bangawarra (through the Place Strategy) and Zakpage (for Master Plan and rezoning) have been at the centre of the project design. In addition, engagement has been held with a variety of First Nations stakeholders at both Place Strategy and Master Plan and rezoning phases.

This UDF has been structured to ensure that connecting with Country is a principle embedded in every aspect of the project from public domain, built form, activation, environment and social infrastructure. It is intended to be a new approach to a UDF that better integrates planning controls with key philosophy and principles of Country.

It is intended that detailed design outcomes from precincts such as Bays West integrate Aboriginal culture, Country, and heritage in modern and inclusive approaches. For culturally appropriate design outcomes to be realised in all built environment projects, it is critical that Country is explored beyond typical landscape outcomes.

This approach must also progress past the design phase and into delivery and implementation for the full life cycle of precincts.

The diagrams adjacent represents some of the major spatial features identified within the Designing with Country Strategy & Directions and the First Nations Engagement that pertain specifically to the White Bay Power Station (and Metro) Sub-precinct, including:

- Interventions at White Bay and water zones to establish a rocky edge habitat.
- Incorporate special seahorse protection zones.
- Critical interface points where ecosystems and uses are adjacent to be considered to determine best possible form of co-existence:
  - land and water Boundary
  - ports and working harbour with development zone
- Water access and engagement points built into the new rocky edge habitat intervention.

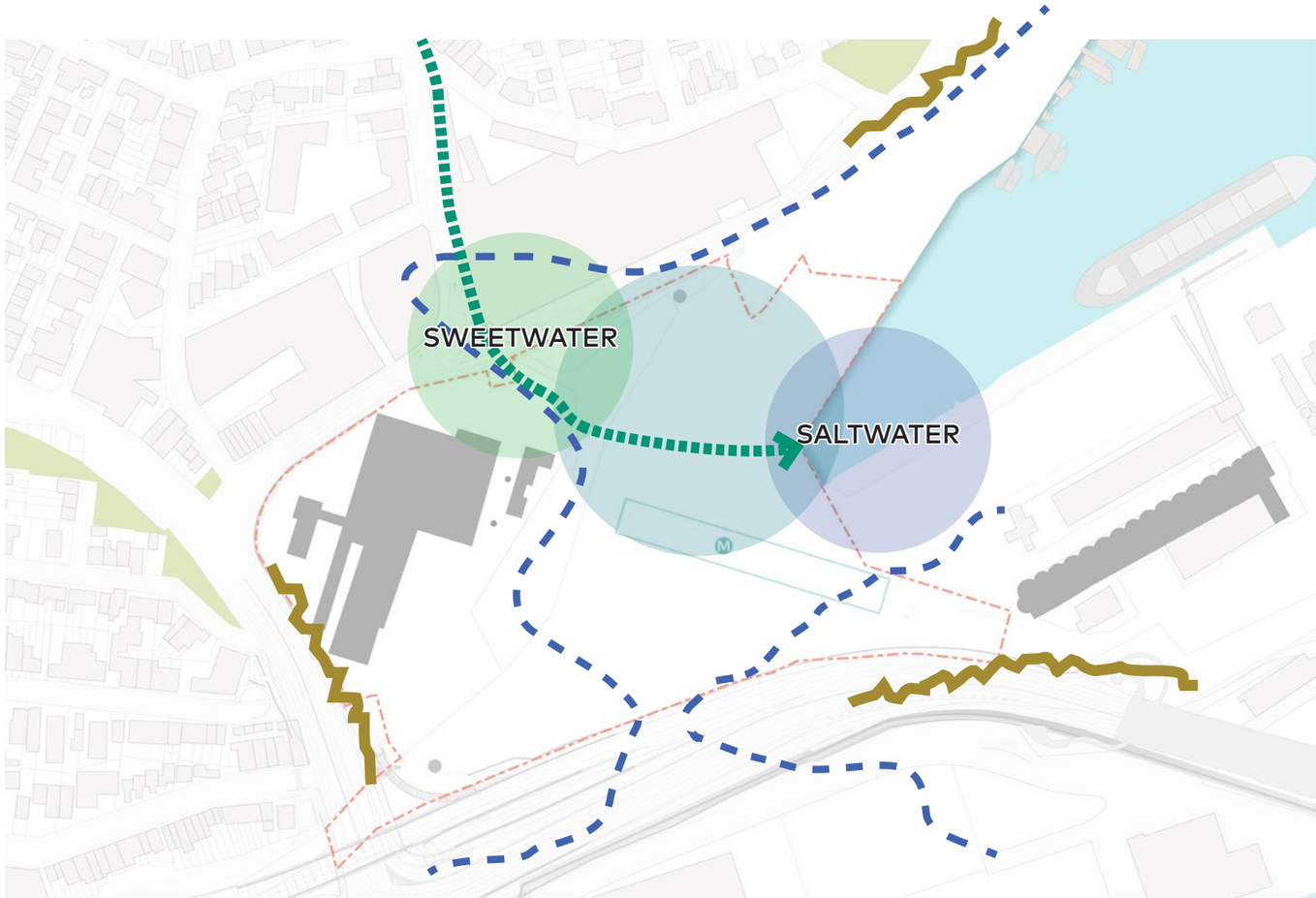


Figure 12: Connection to Country Opportunities

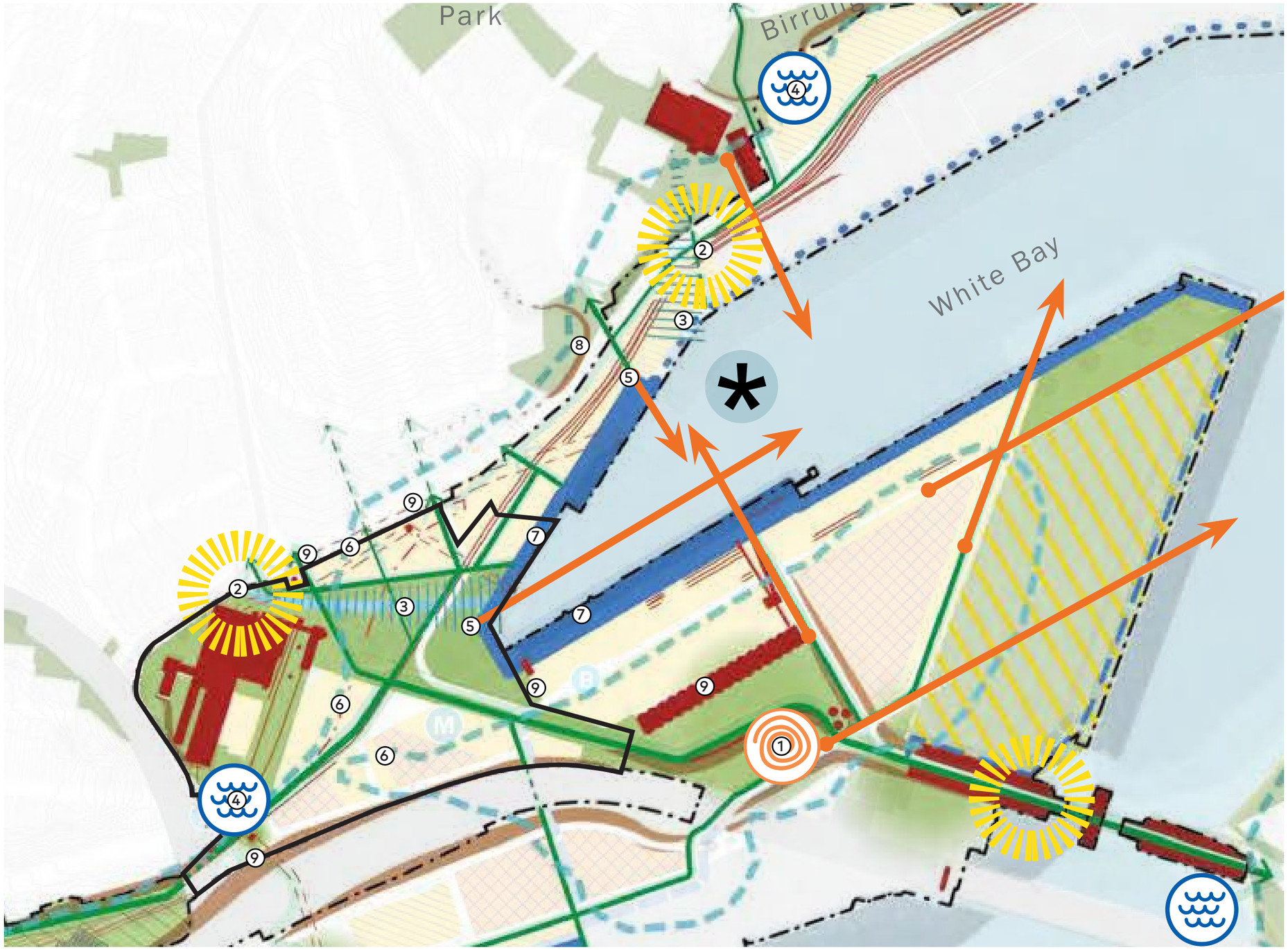


Figure 13: Bays West Structure Plan with embedded Connecting with Country features identified for the White Bay Power Station (and Metro) Sub-precinct (shown in black outline) and adjacent Sub-precincts.

2.4 White Bay Power Station (and Metro) Sub-precinct

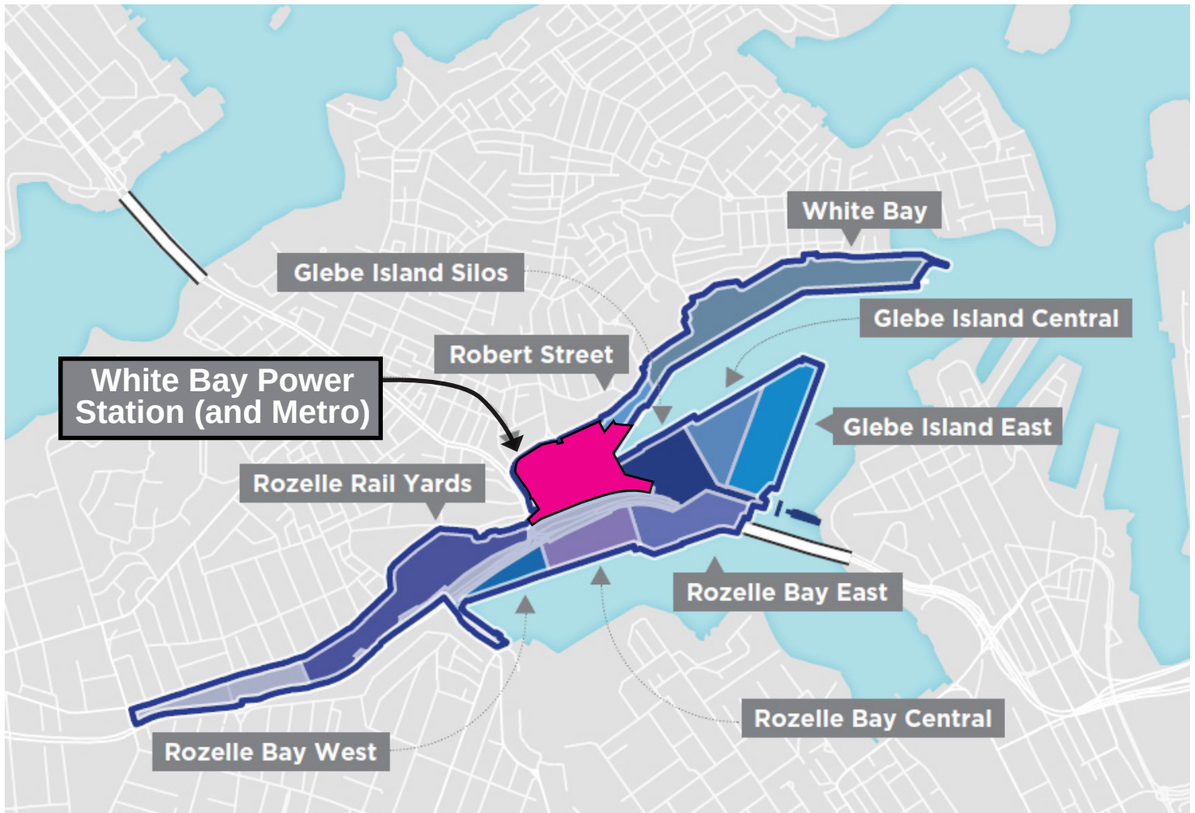


Figure 14: Place Strategy White Bay Sub-precinct context. Sub-precinct boundaries are from the Place Strategy (November 2021) and are subject to change as detailed planning and design work is undertaken as Sub-precinct is masterplanned. Courtesy DPE

2.4.1 Sub-precinct Context

The Bays West Place Strategy establishes a series of 10 distinct Sub-precincts. These are shown in the adjacent diagram. Specific boundary lines have been set for major structural elements, including changes in topography, roadways, key public domain zones and uses and users.

These reflect a logical division of the Bays West precinct, based primarily on existing and desired future character zones.

White Bay Power Station (and Metro) Sub-precinct, has been identified for early phase realisation to reinforce the significant investment that the Sydney Metro West station and the remediation of the White Bay Power Station represent.

As catalytic areas with significant opportunities for the adaptive re-use of heritage elements, the unlocking of land for community access and use, and significant new public and environmental amenity, the opportunities and constraints posed by each Sub-precinct must be carefully balanced to maximise people and place-led outcomes.

The Sub-precinct boundaries have evolved following finalisation of the Bays West Place Strategy to include a larger White Bay Power Station (and Metro) Sub-precinct boundary.

2.4.2 White Bay Power Station (and Metro) Sub-precinct

This Sub-precinct is central to the renewal of the broader Bays West precinct incorporating the White Bay Power Station and the new The Bays station. This Sub-precinct will be a key activity centre for the broader Bays West precinct, providing for employment, recreation, retailing, civic, cultural and living opportunities for existing and new communities. It will be a nexus of connection between other Sub-precincts and the surrounding communities, while potentially providing a new regional open space connecting White Bay Power Station and the head of White Bay.

The delivery of the new Metro Station and adaptive reuse of the White Bay Power Station create strong opportunities for place making and delivering a precinct which responds to and recognises the importance of the precinct.

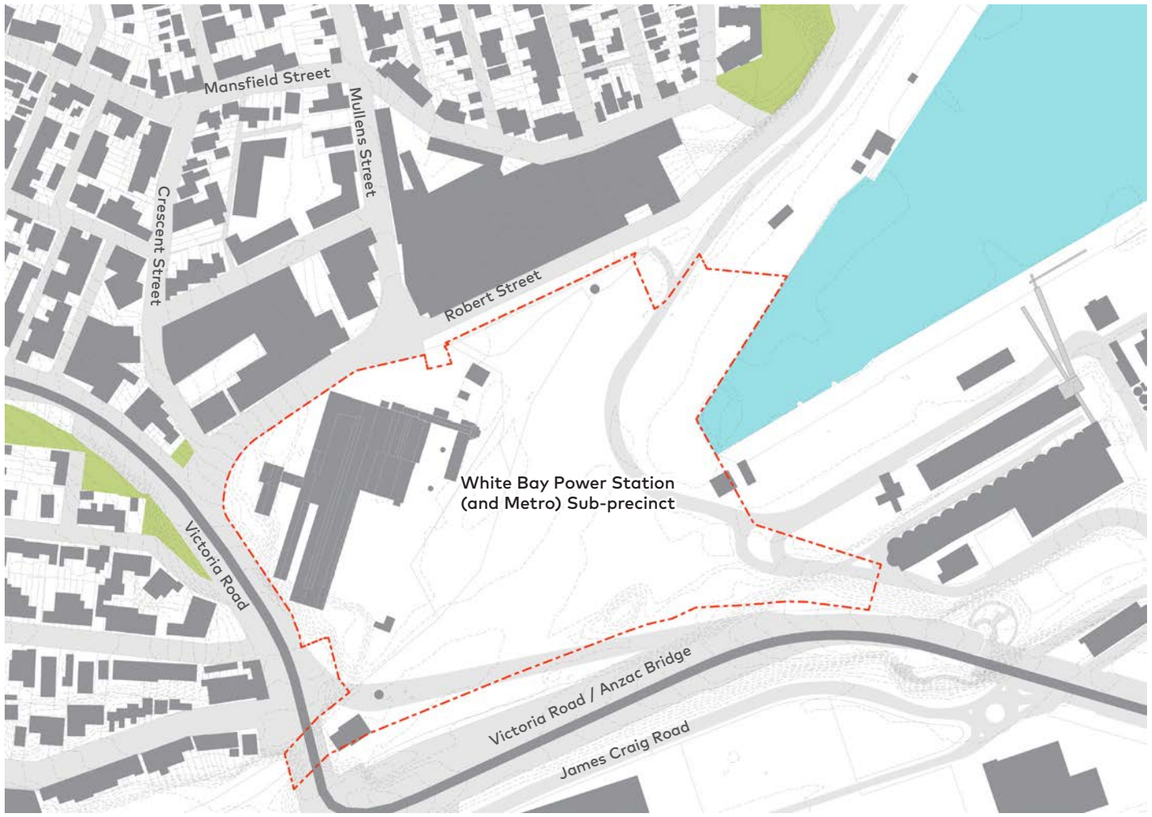


Figure 15: White Bay Power Station (and Metro) Sub-precinct Boundary

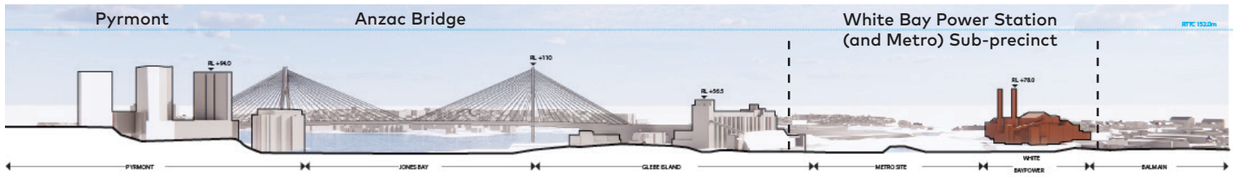


Figure 16: Pyrmont to White Bay and Rozelle section

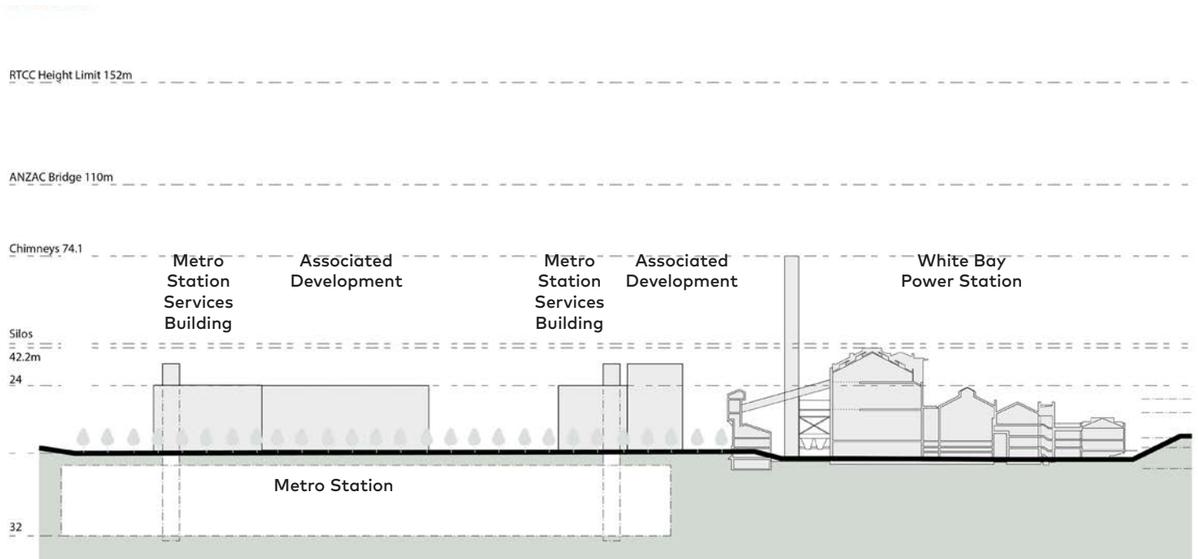


Figure 17: White Bay Power Station (and Metro) Sub-precinct section showing future Metro station and associated servicing

2.0 Site Appreciation and Opportunities

2.4 White Bay Power Station (and Metro) Sub-precinct

2.4.4 Land Use and Function

2.4.4.1 Place Strategy Directions (Nov. 2021)

The Directions are informed by the Place Strategy (November 2021) and should be considered in the context of the broader Sub-precincts and Bays West.

- **Direction 1** - Deliver diverse employment spaces that can support knowledge intensive industries, which are a key contributor to the success of the innovation corridor
- **Direction 2** - Deliver a range of housing, including affordable housing, to support the jobs created in the precinct and the ongoing growth of the Eastern Harbour City and metropolitan Sydney
- **Direction 3** - Retain, manage and allow the essential strategic port and maritime industry uses to grow and evolve, to ensure they continue to support the NSW economy

Figure 18: Constrained residential interface to Victoria Road.

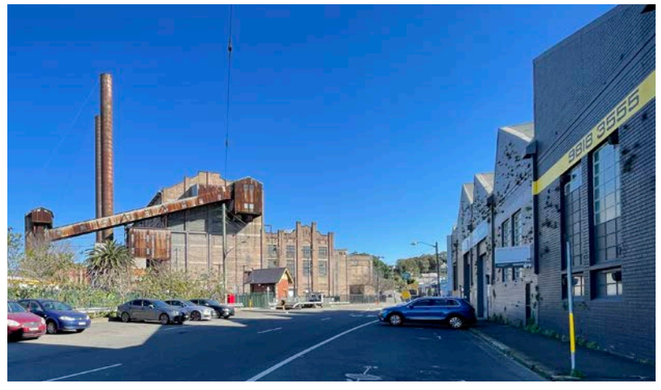


Figure 19: Employment uses to Robert Street.

Figure 20: Proposed Hanson Glebe Island Facility. Hanson

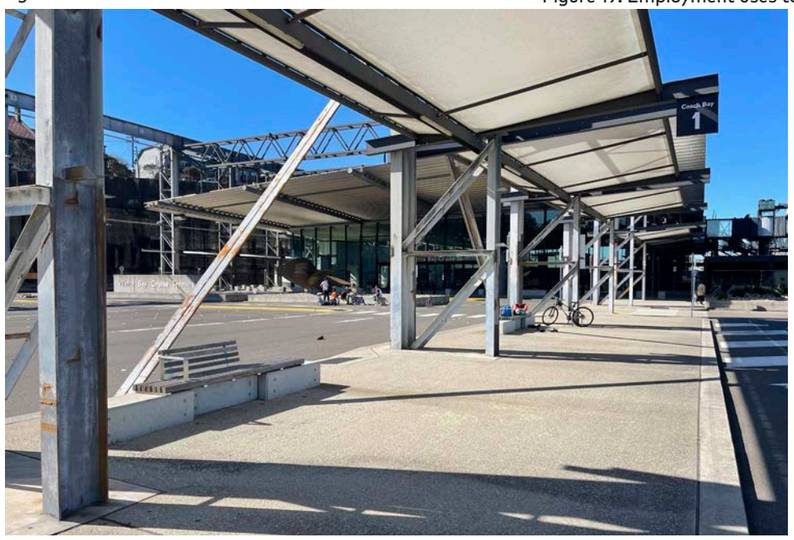


Figure 21: White Bay Cruise Terminal

Figure 22: Industrial uses north of Robert Street

Figure 23: Artists impression of a new Bunnings, currently under construction at corner Mullens and Robert Street.

Figure 24: White Bay Cruise Terminal Gatehouse

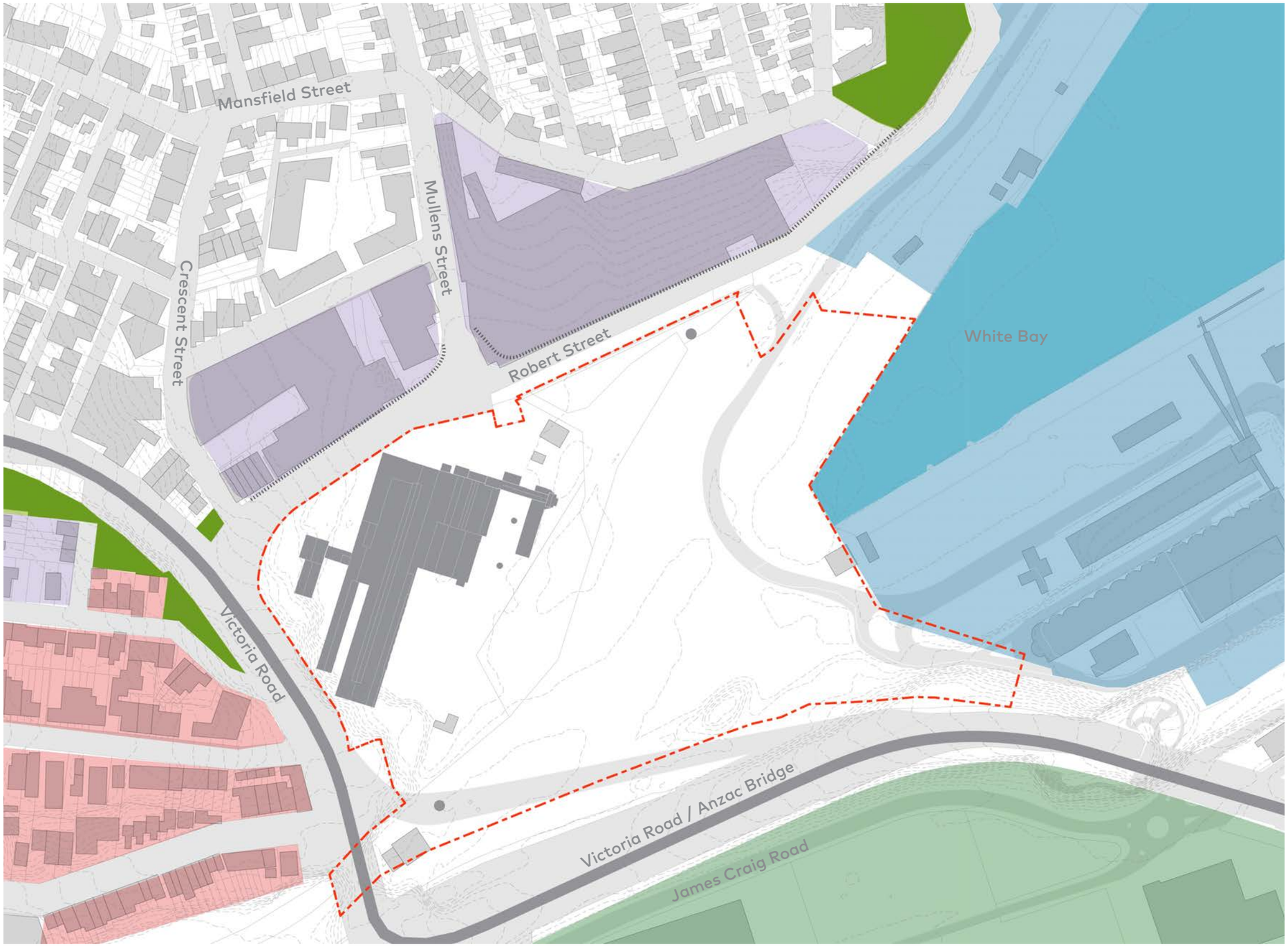


Figure 25: Surrounding Land Uses

Legend

- Site Boundary
- Residential
- Port and Working Harbour
- Rozelle Bay Maritime Industries
- Open Space
- Existing Warehouse and Industrial Buildings

0 25 50 100

2.0 Site Appreciation and Opportunities

2.4 White Bay Power Station (and Metro) Sub-precinct

2.4.4 Land Use and Function

2.4.4.2 Opportunities

- Land uses to support a vibrant, mixed-use centre with a night time economy.
- Focus activation, innovation, community and start up and social infrastructure in and around the White Bay Power Station, along the main heritage axis fronting onto the park (north facing) and surrounding the Metro station plaza.
- A critical population mass (residents and workers) is essential for successful mixed-use precincts, particularly retail and hospitality uses. Similarly, a critical mass of commercial occupiers is essential for successful commercial precincts as businesses gravitate to areas of high activity, providing opportunities to locate proximate customers, suppliers and retail amenity.
- Leverage direct metro connection to the employment centres of Sydney CBD, Pyrmont, Sydney Olympic Park, Parramatta and Westmead to strengthen the feasibility of a knowledge intensive job centre at bays West as an extension of the CBD.
- Support a variety of key industry sectors, including blue economy, technology, information, media and advertising sectors, supported by creative spaces and creating spaces.
- Cluster industries to facilitate knowledge sharing and efficiencies in resource workflow and productivity.
- Deliver employment space and dwellings in a diverse range of building types and floorplates.
- Facilitate anchor uses within the adaptive reuse of the White Bay Power Station that enhance the desirability of businesses to locate to the precinct, and to attract visitors.
- Recognise the opportunity of government-owned lands in well-serviced areas to maximise social and affordable housing.
- Provide for greater housing choices in the area through the provision of alternate typologies than are currently available in the inner west, however, acknowledging that limited opportunities for residential uses exist given the challenges within the Site and greater opportunities for housing exist in adjacent Sub-precincts.
- Facilitating land uses, that support the blue economy and acknowledge the economic and social importance of the port and working harbour.
- Enable ports and maritime innovation linking to the innovation corridor and creating educational opportunities.
- Acknowledging that there is a strong nexus between commercial uses and mass transit e.g. there will be greater demand for commercial space within 400m of The Bays station.

Figure 26: Co-housing projects such as Nightingale

Figure 28: Adaptive re-use of infrastructure for commercial office

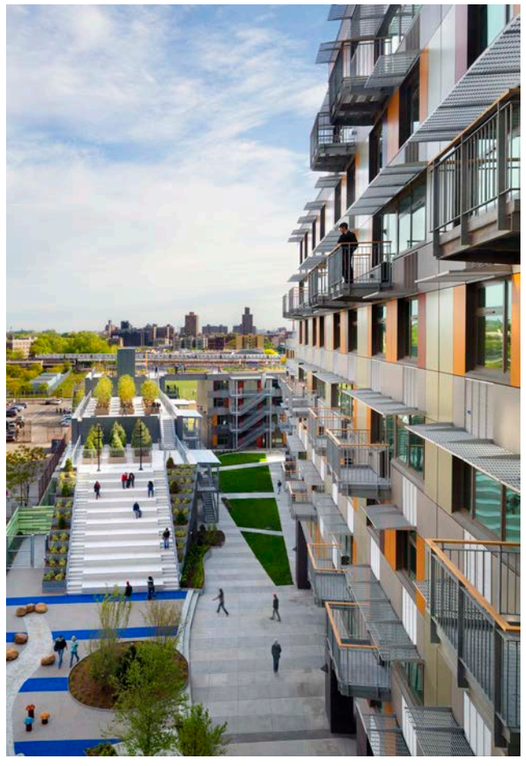


Figure 29: Adaptive re-use of infrastructure for mixed-use

Figure 27: Adaptive re-use of heritage for mixed use

Figure 31: Interpretation of Turbine Hall as 'covered street' gallery

Figure 30: Interface with existing infrastructure

Figure 32: Historic fabric woven with modern interventions

2.4.4.3 Challenges

- Acknowledging that successful mixed use precinct requires a multitude of elements in order to be economically sustainable and remain vibrant. It is rare for all these elements to be delivered in absolute unison given the inherent challenges in mitigating land use conflicts. For instance, successful office precincts will often require good separation from uses (e.g. residential) that may conflict with corporate profile and prestige.
- Considering the proximity of busy roads and ongoing ports and maritime uses which may present challenges for residential uses and/or sensitive uses such as childcare, aged care and as a result of noise and poor air quality.
- Balancing the provision for any residential uses against the need to ensure that a viable commercial precinct, with the capacity for cultural facilities, can be delivered.
- Ensure the compatibility of uses within the Site that:
  - do not sterilise the opportunity for large events to occur within or around the WBPS
  - do not sterilise the opportunity for large events to occur within the proposed waterfront parkland
  - provide an appropriate interface and transition to the existing light industrial and urban services uses on the northern side of Robert Street
  - adequately manage the impacts of a hostile traffic and noise interface to Victoria Road and the Anzac Bridge western approach.
  - considers the current and future port and working harbour uses and their integration with the future of Bays West

2.0 Site Appreciation and Opportunities

2.4 White Bay Power Station (and Metro) Sub-precinct

2.4.5 Design of Places and Spaces

2.4.5.1 Place Strategy Directions (Nov. 2021)

Provide guidance on how the White Bay Power Station (and Metro) Sub-precinct will feel to people and what is important in the design of buildings and public domain.

- **Direction 4** - A key focus of the Sub-precincts is the design of open space and social infrastructure, ensuring careful integration with the natural, industrial, maritime and cultural heritage
- **Direction 5** - Promote design excellence and embed a people-focused approach to deliver high quality, accessible and diverse built form and amenity outcomes
- **Direction 6** - Enhance biodiversity on land and water, and improve water quality in the harbour whilst restoring and expanding the green and blue natural systems
- **Direction 7** - Deliver world class, sustainable Sub-precincts which are carbon neutral and delivers efficient management of energy and water, and the elimination of waste sharing and efficiencies in resource

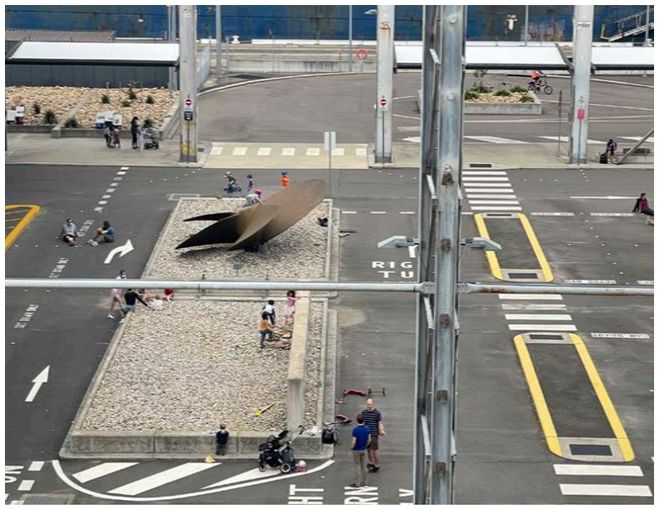


Figure 33: Community use of White Bay Cruise Terminal with container ship at berth, September 2021

Figure 34: Vegetated frontage

Figure 35: Balmain Community Space

Figure 36: Rozelle Railyards Regional Open Space

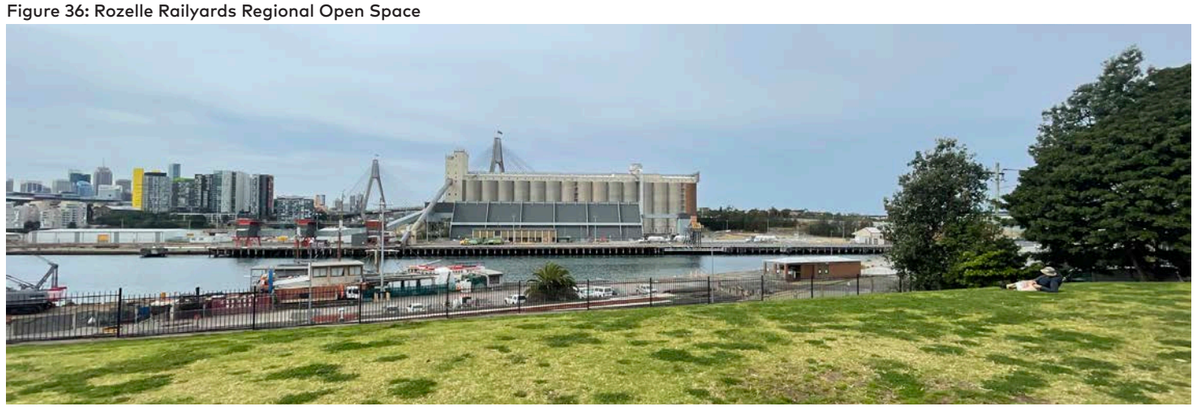


Figure 37: Open space at Mansfield Street looking south towards Glebe Island Silos.

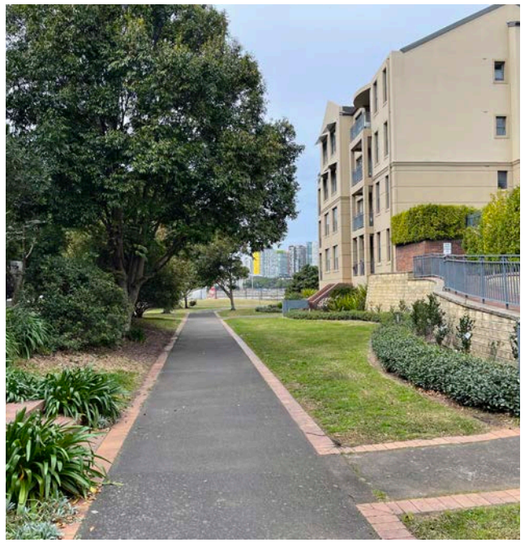


Figure 38: Quasi-public links and views

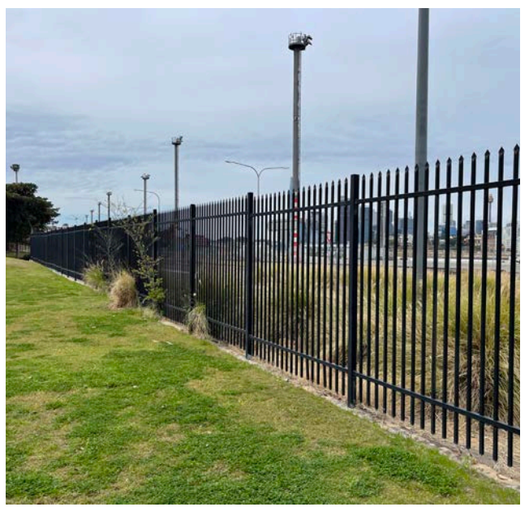


Figure 39: Fencing along Robert Street

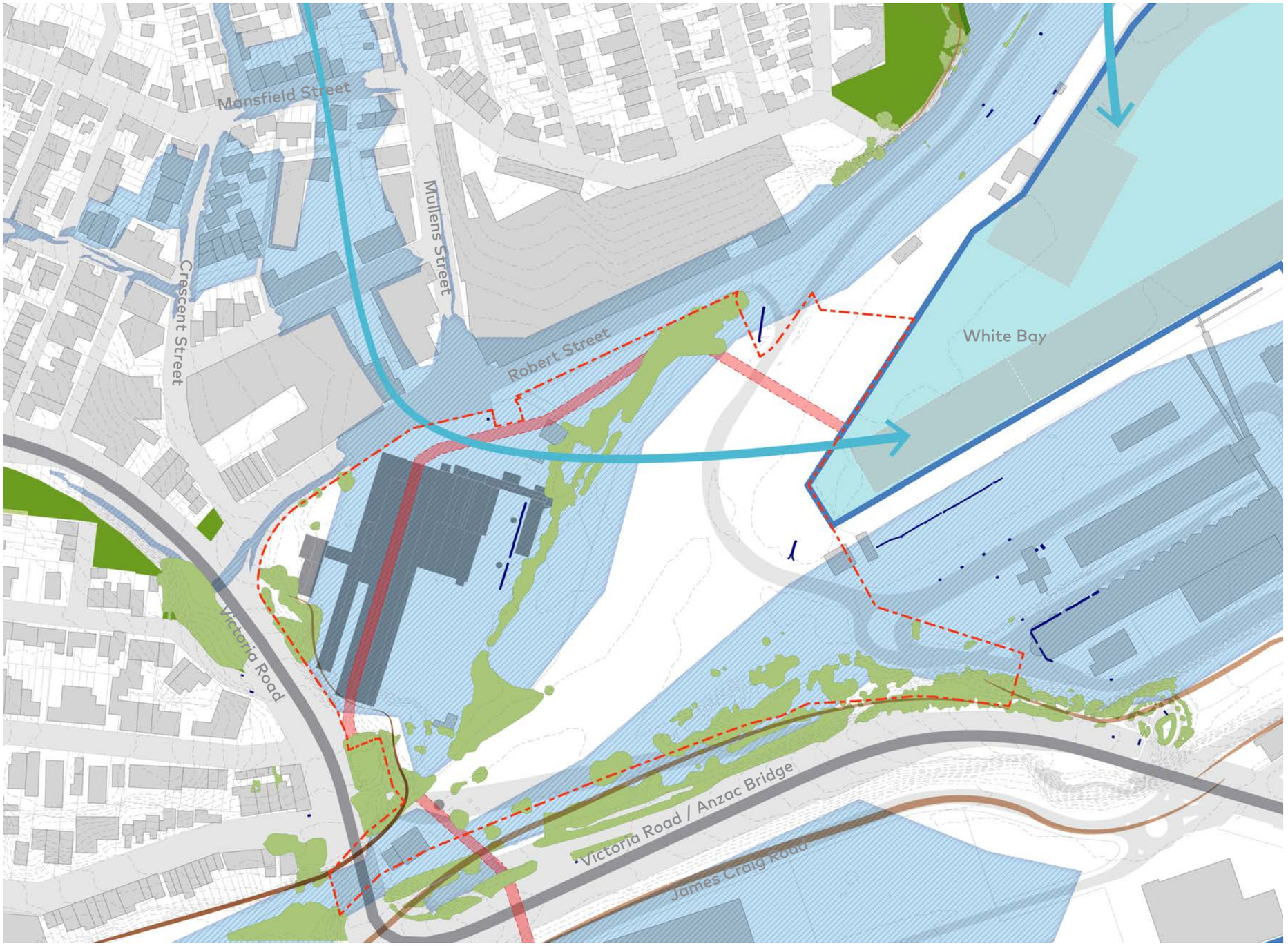


Figure 40: Design of Places and Spaces Analysis

2.0 Site Appreciation and Opportunities

2.4 White Bay Power Station (and Metro) Sub-precinct

2.4.5 Design of Places and Spaces

2.4.5.1 Opportunities

Public Domain and Site

- Celebrate the Country and the important knowledge opportunity embedded in Country, through indoor and outdoor learning experiences and the parkland embedded with stories of water Country.
- Reveal the original creek and rain catchments, maximise Water Sensitive Urban Design (WSUD) integration, biodiversity and habitat creation whilst enhancing open space amenity.
- Celebrate the site's water story and natural systems through a whole of site flooding resilient infrastructure response.
- Provide a new ground plane that connects the White Bay Power Station to the new development and Metro station.
- Allow the public domain surrounding the power station to act as a functional WSUD water landscape of new public experiences.
- Express hydraulic infrastructure to add to the site's industrial narrative.
- Interrogate the opportunity to bring water in to the site on the tides.
- Maximise canopy cover and maximise biodiversity through a green street network.
- Establish ecological zones at the head of White Bay to help improve water quality being discharged in to the harbour.
- Preserve and reinforce the heritage axis/corridor linking Anzac Bridge, the White Bay Power Station, the silos and Glebe Island Bridge by creating a wide boulevard that integrates The Bays station.
- Create a heritage forecourt and public space commensurate with the scale and significance of the White Bay Power Station.
- Deliver a significant, consolidated, connected, activated public open space near the water at an early stage.
- Weave in existing and proposed new open space links and social infrastructure, including those proposed with the Rozelle Railyards project.
- Build on the site's heritage through preserving and recognising its indigenous and industrial heritage.

Figure 41: Industrial reuse for public space, Auckland, New Zealand

Figure 43: Rozelle Railyards Regional Open Space

Figure 44: Public access to water. Brooklyn, NY, USA

Figure 42: Interim cultural uses. Fisherman's Wharf, Melbourne

Built Form

- Respect the site's iconic heritage structures and working harbour experiences in four-dimensions, by considering the shifting vistas from actual movement networks such as views towards the White Bay Power Station. These include views from travelling along the Anzac Bridge, or to the Harbour Bridge from within the Site.
- Provide appropriate urban block scale to maximise permeability especially in proximity to open space and waterfront zones.
- For any new buildings adjoining or in the vicinity of the WBPS, respect the scale, presence and curtilage of the White Bay Power Station and the Conservation Management Plan.
- Explore a new kind of urbanism that reflects more of a CBD built form and streetscape than a business park.
- Locate height to south of precinct to maximise solar access within proposed open space areas and developments.
- Provide architectural expression of any new infrastructure (i.e. Metro services buildings and intake substation) to contribute to the infrastructure story of the place.

Figure 45: Adaptive re-use of heritage for community infrastructure. LocHal Library, The Netherlands

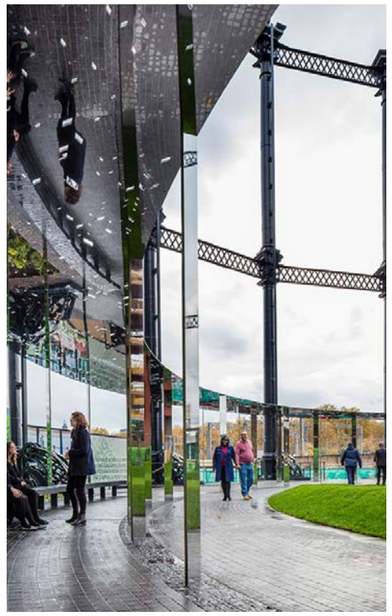


Figure 47: Redevelopment of fabric as open space. Gasholder Park, UK

Figure 48: Landmarks that serve a regional wayfinding purpose

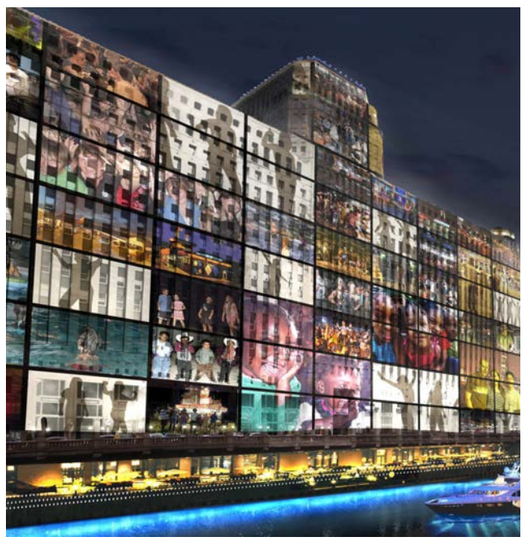


Figure 46: Re-use as commercial and incubator hub. Merchandise Mart, Chicago

2.4.5.2 Challenges

- Utilising a whole-of-government approach that can deliver a truly sustainable precinct that achieves or exceeds energy, waste and water targets.
- Appropriately responding to site constraints such as preserving heritage view lines, responding to flooding, managing contamination, and limited transport network while also achieving feasibility and delivery of infrastructure required to support future renewal.
- Balancing the desire to locate density and development activity in the areas of highest accessibility and amenity (around the Metro station and waterfront park) with the impacts upon public domain, amenity and view corridors to and from the White Bay Power Station.
- Minimising the structural, contamination and remediation constraints associated with the existing ground plane and fill.
- Overcoming barriers at Sub-precinct interfaces will require careful consideration of uses and built form to mitigate topographic, noise, air pollution and wind impacts.

2.0 Site Appreciation and Opportunities

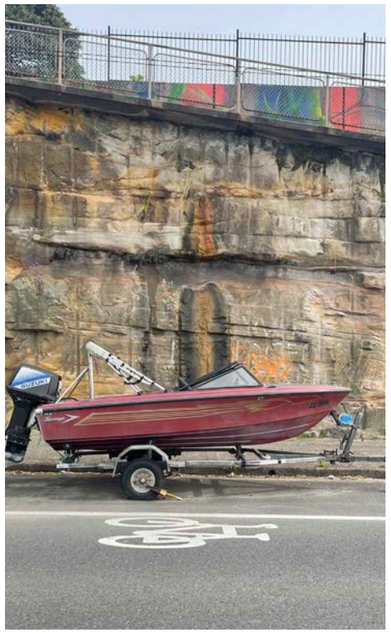
2.4 White Bay Power Station (and Metro) Sub-precinct

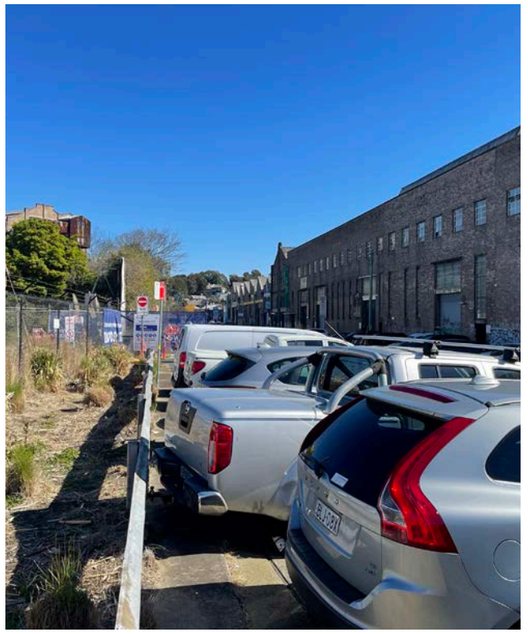
2.4.6 Transport and Movement

2.4.6.1 Place Strategy Directions (Nov. 2021)

Recognise the constrained nature of the White Bay Power Station (and Metro) Sub-precinct and establish how people and goods will move to, through and within the Sub-precinct.

- **Direction 8** - Improve the Sub-precinct's connectivity and integration into its locality and surrounding areas
- **Direction 9** - Provide for new connections to existing places by removing existing barriers to allow connections through the site and convenient access to the new Metro station
- **Direction 10** - Prioritise walking, cycling and public transport by capitalising on the new Metro station, creating more convenient and direct active transport connections and investigate the reinstatement of a crossing from Bays West to Pyrmont





Site experiences. September 2021
From top-left

Figure 49: Complex level changes limit community accessibility

Figure 50: Low-quality and undefined public links through private lands

Figure 51: Proposed Bays Metro Station. Indicative only - subject to design development by Sydney Metro

Figure 52: Insufficient shared path adjoining Power Station exposed to Victoria Rd. traffic, impacted by sign posts, advertising, and bus stop.

Figure 53: Long-term parking impacts Robert St. experience

Figure 54: Traffic congestion to Robert St. opposite Power Station

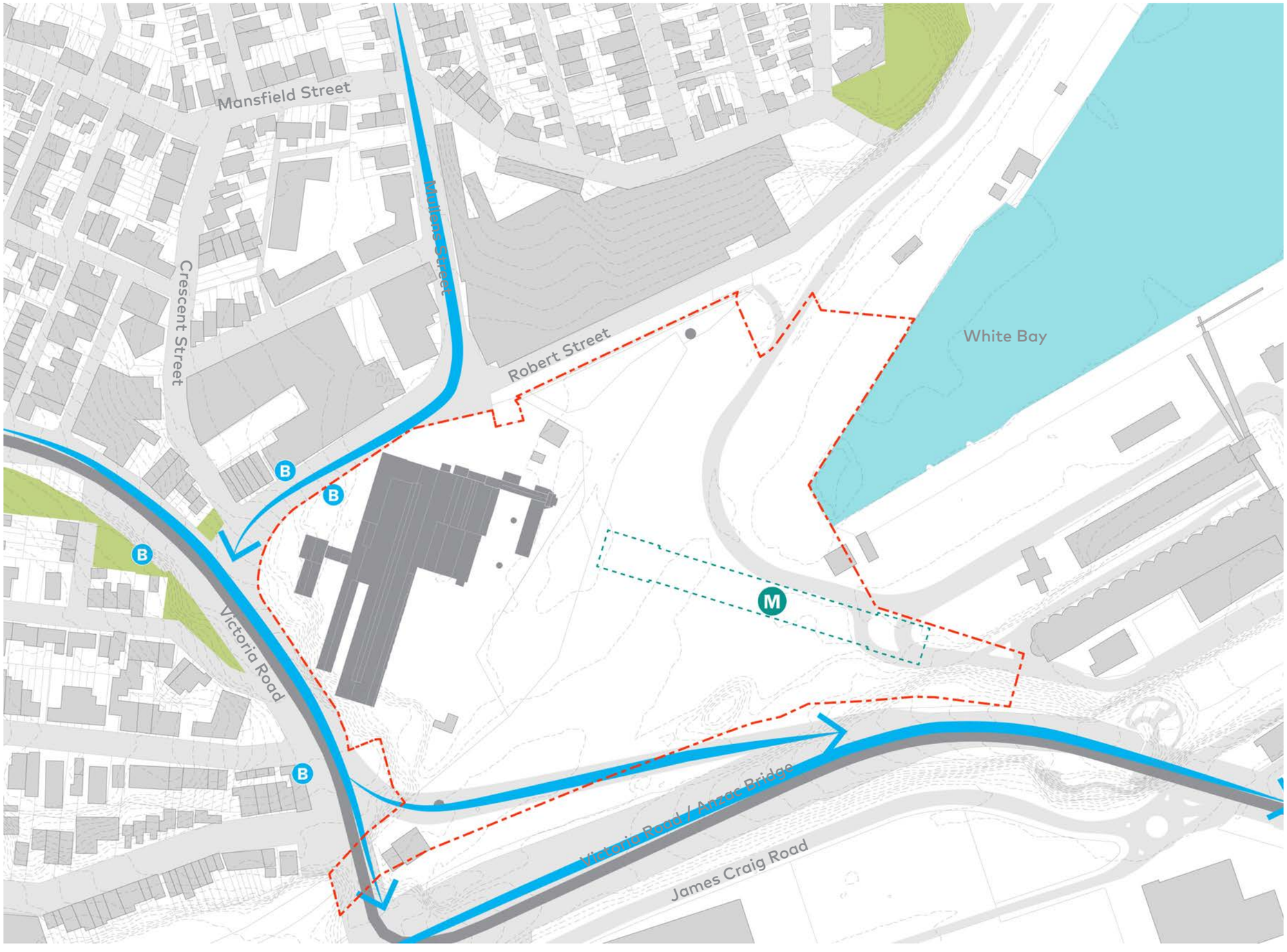


Figure 55: Existing Transport and Movement

Legend

- Site Boundary
- Metro Box
- Bus Routes
- Metro Station
- Existing Bus Stops

0 25 50 100

2.0 Site Appreciation and Opportunities

2.4 White Bay Power Station (and Metro) Sub-precinct

2.4.6 Transport and Movement

2.4.6.2 Opportunities

- Reinstate a crossing from Bays West to Pyrmont to create more convenient and direct active transport connections.
- Facilitate future active travel and pedestrian connections to and from Glebe Island Bridge and Lilyfield Road as part of a key site through link within the regional cycling network between the Inner West suburbs to Pyrmont and the Sydney CBD.
- Facilitate legible pedestrian/ cycle connections from Railway Parade, Mullens Street, Victoria Road and James Craig Road to White Bay Power Station, Metro Station and waterfront strengthening community connection to Pyrmont, Rozelle, Balmain and Glebe.
- Make the most of the opportunity that a new Metro Station presents to renew the precinct and surrounds through appropriate development and recreational opportunities that have a strong nexus to mass transit.
- Identify access nodes to the Site and active transport connections and wayfinding to/from them, including future connections under the Anzac Bridge to Rozelle Bay.
- Strengthen pedestrian cycle green connections to Punch Park, Vanardi Green, Birrung Park and Easton Park
- Provide clear and legible transport links between surrounding communities, the Site and the multi-modal transport interchange anchored by the Metro station.
- Provide additional elevated connections where possible from Victoria Road into the White Bay Power Station.
- Future proof for the potential extension of the existing street network north of Mansfield Street through the redevelopment of the industrial warehouses on Robert Street.
- Integrate public transport with the central plaza and public domain networks to maximise identity, legibility, amenity, and activity at all hours.
- Establish a exemplar low car dependency Site by minimising vehicular access and parking within the Site and prioritising, pedestrians, cyclists, public transport, car share, servicing and utility vehicles and traffic associated with retained ports and maritime uses.
- Design internal streets to discourage through traffic movements from surrounding areas.
- Provide central decoupled parking nodes for the precinct to prioritise walking and cycling.

Figure 56: Public transport interchange as public domain activator. Copenhagen, Denmark

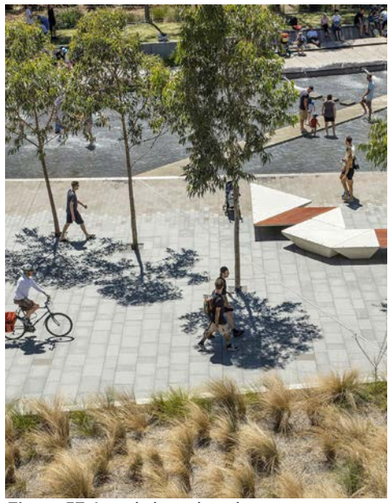


Figure 57: Local shared paths.
Darling Harbour, Sydney

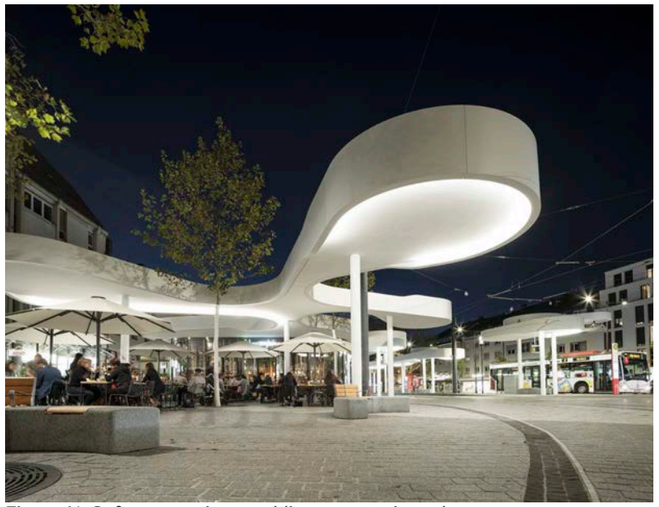


Figure 61: Cafe uses activate public transport interchange.
Freiburg im Breisgau, Germany

Figure 58: Regional active transport link. Melbourne, Australia

2.4.6.3 Challenges

- Ensuring that the Metro station and bus interchange, together with public connections are legible and safe.
- Creating new active transport connections that are legible and safe, while minimising potential conflict between pedestrians, cyclists and vehicles.
- Acknowledge the significant access constraints to the east, west and south of the Site to Glebe Island, Victoria Road and Anzac Bridge.
- Managing the existing road network challenges in and around the Site for current users, the future planning of traffic and transport links needs to consider requirements for all existing and future uses and users.
- Managing the constrained surrounding road network, which will continue in the future, when developing potential future land uses and built form.
- Ensuring light traffic and coaches associated with the White Bay Cruise Terminal can efficiently traverse the Site , whilst maintaining the day to day activation and operation of the public domain and destinations within the Site .

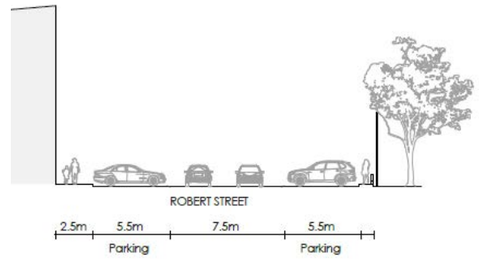


Figure 59: Robert Street section

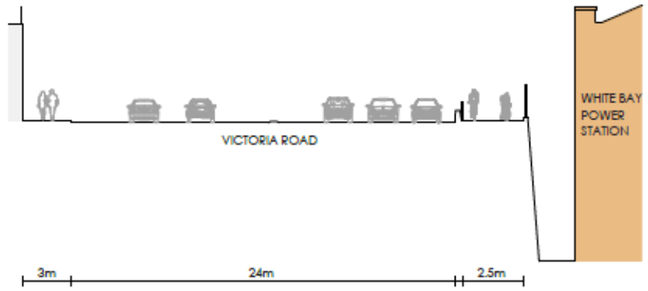


Figure 60: Victoria Road interface

2.0 Site Appreciation and Opportunities

2.4 White Bay Power Station (and Metro) Sub-precinct

2.4.7 Heritage and Culture

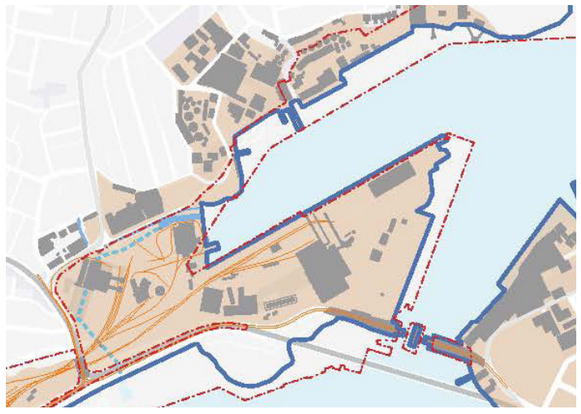
2.4.7.1 Place Strategy Directions (Nov. 2021)

Heritage and culture that recognise the importance of the past and how understanding history and culture is critical to creating a place with meaning.

- **Direction 11** - Bring new life to existing diverse assets and uses, integrating rich layers of creativity, heritage and culture across the precinct
- **Direction 12 -** Ensure that future developments recognise, embrace and create opportunities for deeper understanding of our culture, stories and continued cultural practices

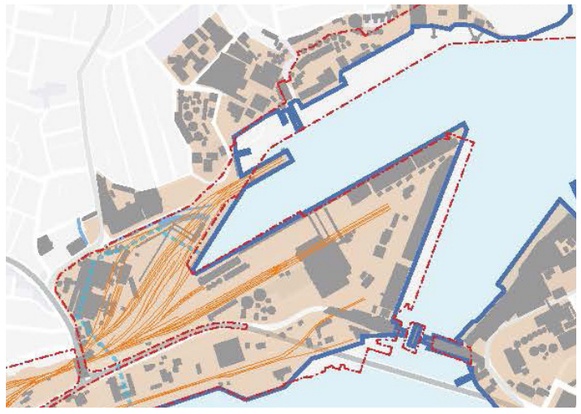
1788-1840

- 1788 - Area occupied by the Cadigal band of the Eora nation.



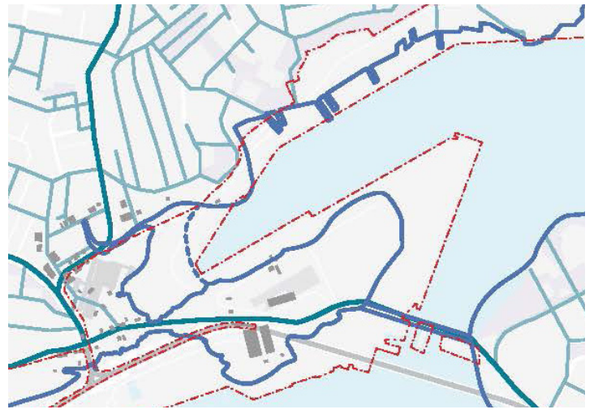
1900-1920

- 1901 - Redeveloped Glebe Island Bridge opened after fire.
- 1911-17 First stage of Power Station complete, supplying power to Sydney's tram and railway.
- 1917 White Bay Hotel relocates to land on Victoria Road



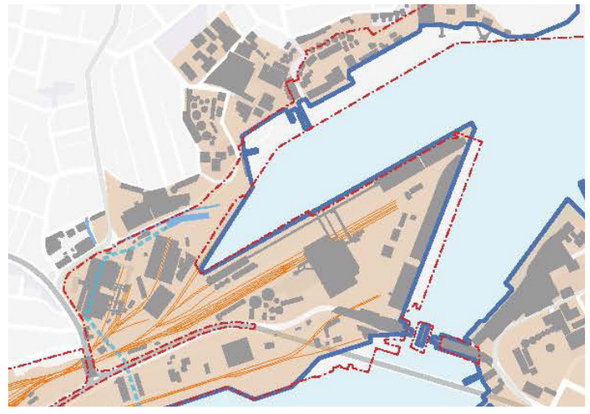
1943-1965

- 1953 - First stage of White Bay Power Station modernisation which included new machinery, greater capacity and demolition of the original 1917 boiler house.
- 1956 - Ownership of White Bay Power Station transfers to the Electricity Commission of NSW.
- 1958 - Second stage of White Bay Power Station modernisation complete.



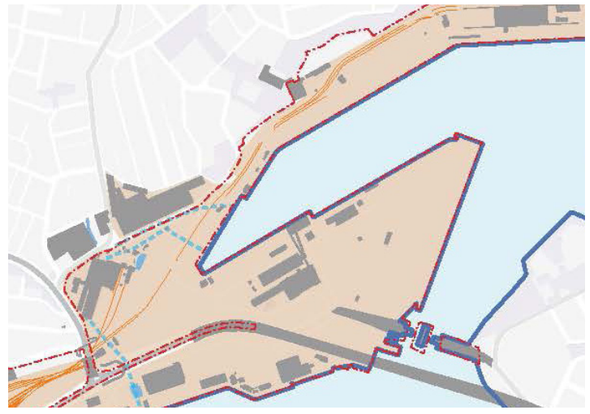
1840-1900

- 1857 - Original Glebe Island Bridge opened.
- 1895 - Some reclamation of east shoreline of Balmain for industrial facilities
- 1899 - Reclaimed land at the head of White Bay set aside as a reserve or public recreation.



1920-1943

- 1928 - Second stage of White Bay Power Station complete.



1965-2021

- 1983 - White Bay Power Station decommissioned.
- 1995 - Anzac Bridge is opened. Glebe Island bridge no longer used.
- 2008 - Fire destroys White Bay Hotel (located on Victoria Road).
- 2013 - White Bay Cruise Terminal opens.

Legend

Bays West Boundary | Shoreline | Streets | Canals

Building Footprints | Industrial/Maritime Uses | Rail Lines

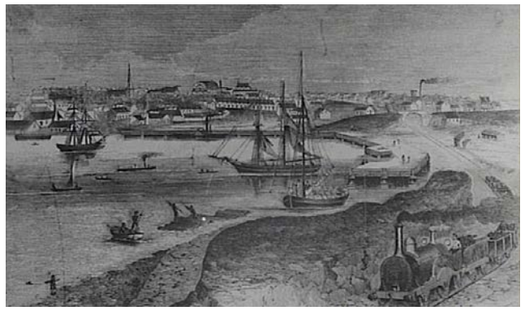


Figure 62: White Bay, CoS Archives

Figure 63: White Bay, Heritage NSW

Figure 64: Demolition of White Bay Hotel after fire, 2008. Peter Fletcher

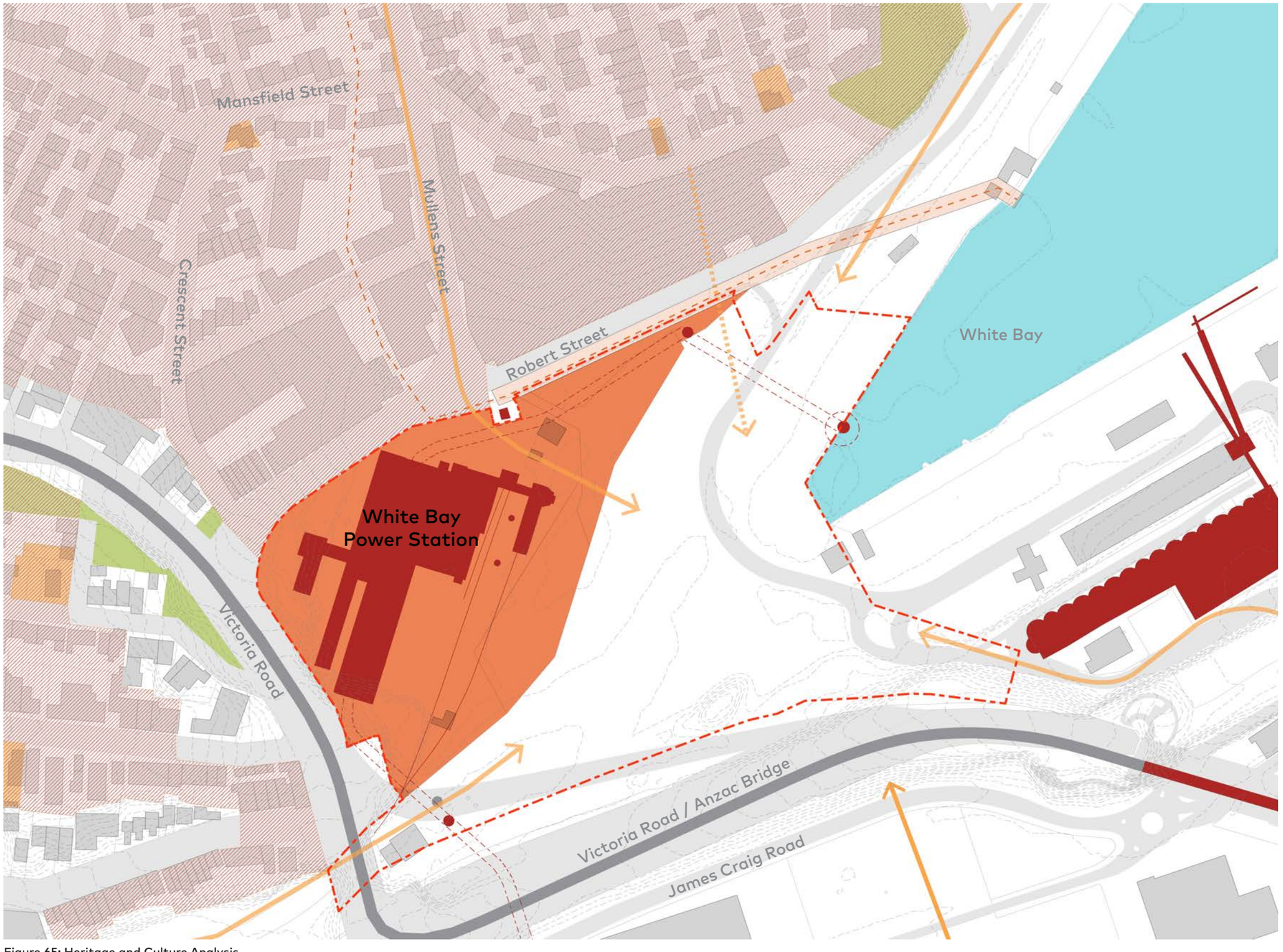


Figure 65: Heritage and Culture Analysis

Legend

- Site Boundary
- Heritage Item
- Cooling Canal for White Bay Power Station
- Local Heritage
- Conservation Area
- Beattie St Stormwater Channel
- State Heritage
- Existing and Future Links to Community

0 25 50 100

2.0 Site Appreciation and Opportunities

2.4 White Bay Power Station (and Metro) Sub-precinct

Figure 66: View east to Glebe Island from the ridge showing the access road and abattoir on the southern ridge. Already deforested and bare, but with steep harbour edges,

2.4.7 Heritage and Culture

Dramatically Altered Landscapes

Figure 67: View west in 1871 from Glebe Island to a bridge about 100m in length spanning from Balmain to Glebe Island linking to Victoria Road to the north

A causeway link

The first road connection to the island occurred on the western side of the island, across approximately 100 metre wide tidal flats that made the island only accessible at low tide. A causeway bridge was built in the 1840s that provided new access to the abattoirs. In 1841 surveyor William Wells created a subdivision for the Balmain end of the island with four intended streets and six sections containing a total of 86 lots. The subdivision did not eventuate.

The city's quarry

The island original topography was completely levelled by quarrying for its golden sandstone. At one time Saunders had over 250 men working on the island in the late 1800s and early 1900s. The island became an extension of the successful quarries in Pyrmont that provided stone for many public buildings in the city. Initially with access to ships and later a new bridge to Pyrmont, a steady supply of stone was established. Quarried rubble was used to expand wharf apron areas, and to build the approaches for the 1901 swing bridge.

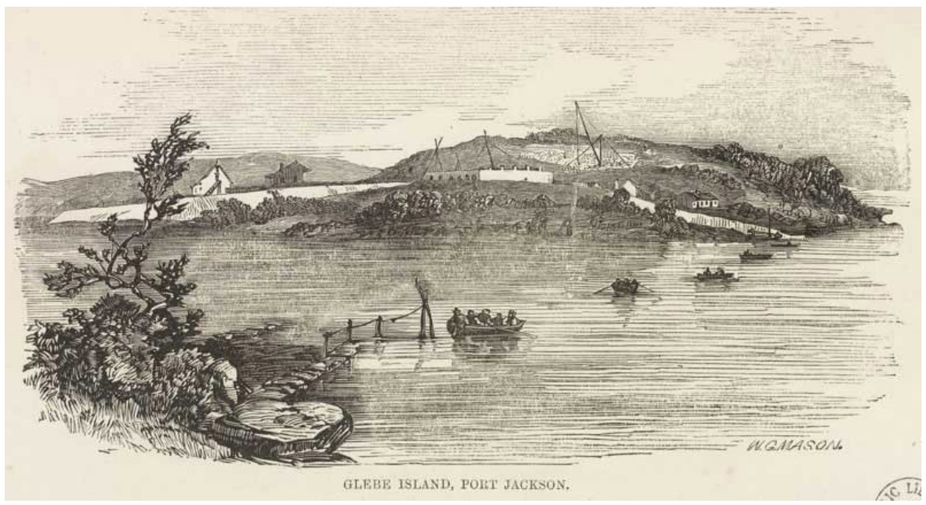


Figure 68: Etching of view west to Glebe Island showing the beginnings of sandstone quarrying.

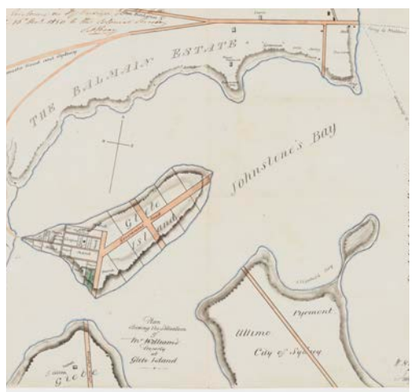


Figure 69: Glebe Island outline

Figure 70: Sandstone quarry on Glebe Island (White Bay Power Station in far right side)

Figure 71: Stormwater Channel No.15, Beattie Street, Balmain, 1893
(Source NSW State Archives, Digital ID: 4481_a026_000602)

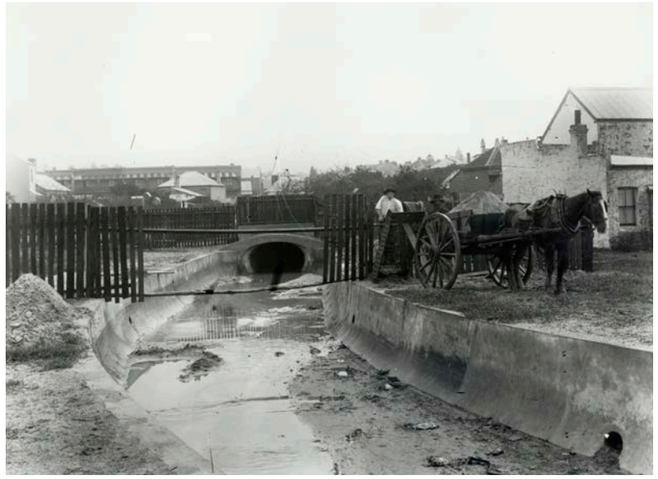


Figure 72: View west along the open Stormwater Canal No.15, White Bay 1893, showing a cleared and levelled site to the south of Robert Street
(Source NSW State Archives)

Dramatically Altered Watercourses

Reclaimed harbour

When shipping was the key economic driver on the harbour, new wharfs, harbourside warehouses, stores and docks were in high demand. Many parts of the inner harbour were infilled, reclaimed and expanded to provide increased wharfage and new dry docks. Sites with an ample supply of nearby stone and fill were ideal for such expansion, with notable examples such as Cockatoo Island/Waremah where much of the island was levelled and expanded on to support shipping industries and to provide deep water moorings. Glebe Island was rapidly changed in physical form, shape and footprint with rubble drawn from the quarrying works.

Stormwater Canals

In the 1890s as the population of the city grew, demand for housing encouraged new dwellings to be constructed more and more on low lying areas that were prone to flooding by stormwater. City engineers took to the problem with the construction of dozens of concrete lined canals right across inner Sydney, as a means of controlling peak stormwater flows and protect property. Other issues such as sewage and rubbish dumping, and disease such as typhoid and influenza also increased the push to remove any natural systems and areas of pooled water. The bubonic plague of 1900 first arrived in Australia on the wharfs of Sydney. Drainage canals were built right through to World War 2, and were a source of local employment during the Great Depression. Today Sydney Water has a changed approach and is naturalising many of these canals with sandstone and endemic planting including Johnstons Canal in Glebe.

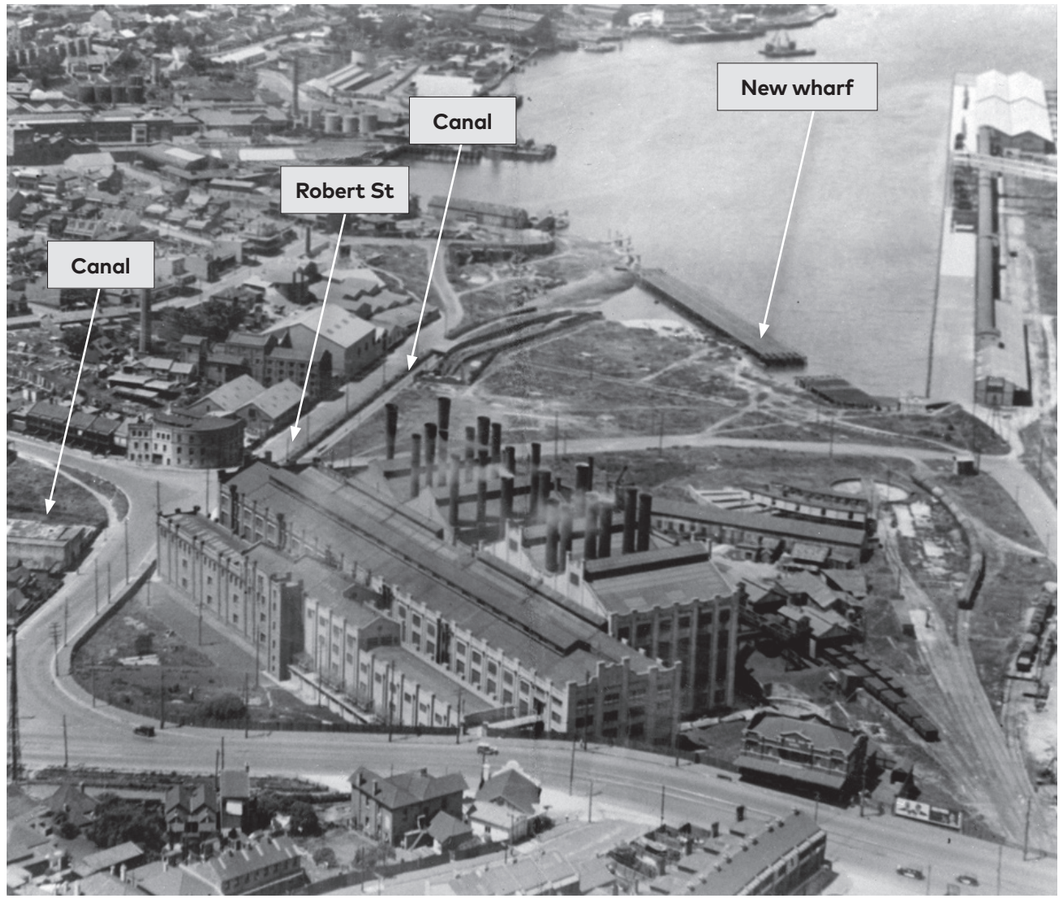


Figure 73: 1930s view of White Bay Power Station showing the construction of new wharfs, location of stormwater canal and reclaimed land south of Robert Street.

2.0 Site Appreciation and Opportunities

2.4 White Bay Power Station (and Metro) Sub-precinct

2.4.7 Heritage and Culture

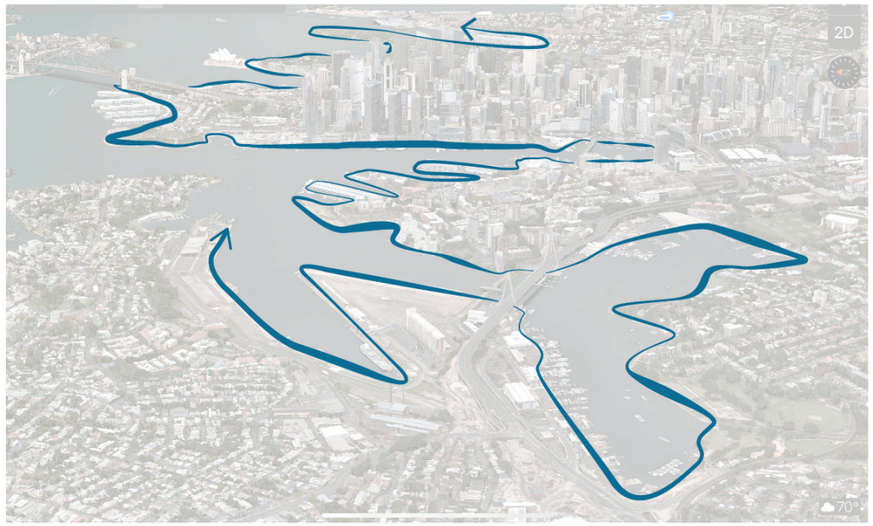


Figure 74: Extend Sydney's public waterfront and cultural ribbon

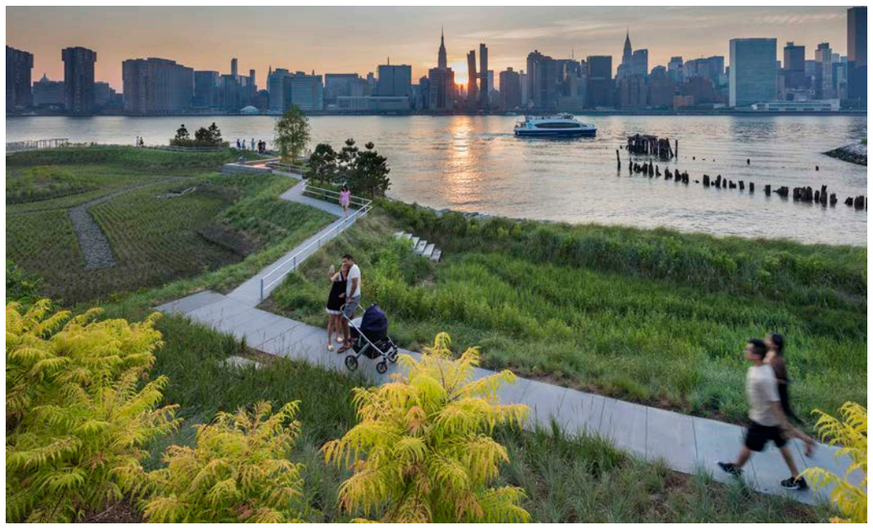


Figure 75: Rejuvenation of natural systems. Hunters Point, NY

2.4.7.2 Opportunities

Connection to Country

- Embeds Country perspectives into Precinct design, consultation, delivery, care, operations and governance approaches with recognition and engagement with Indigenous culture.
- Incorporates spaces and connections which enable the teaching and sharing of Indigenous culture and a holistic restorative sustainability ethos in line with Indigenous practices - use and management of infrastructure and interconnected systems.
- Link the various branches of aboriginal heritage, site history and knowledge into a series of vistas, site movements and experiences.
- Using public art to strengthen the sense of place and as a balance of local creative industries and talent, indigenous designers, heritage fabric and legacy of the site, all within a precinct of regional and national significance.

Built Form

- Adaptively re-use the White Bay Power Station to become a public, cultural and community landmark for NSW.
- Deliver public access to all significant features within the White Bay Power Station.
- Protect district and local views and vistas, maintaining prominence and significance of the WBPS, the silos and Glebe Island Bridge as key heritage landmark structures.
- Incorporate the heritage listed sewage pumping station SP0007 on Robert Street.

Public Domain and Site

- Deliver a world class harbour foreshore walk which celebrates and demonstrates care for Country, accesses the various heritage and maritime experiences and extends the "cultural ribbon" from Woolloomooloo to White Bay.
- Create a heritage forecourt and public plaza adjacent to the White Bay Power Station to allow events and programming to "spill out" of the Power Station.
- Reinforce the evolving industrial, maritime and cultural narratives.

Land Use and Programming

- Focus activation, innovation, community and start up, creative culture and social infrastructure in and around the White Bay Power Station.

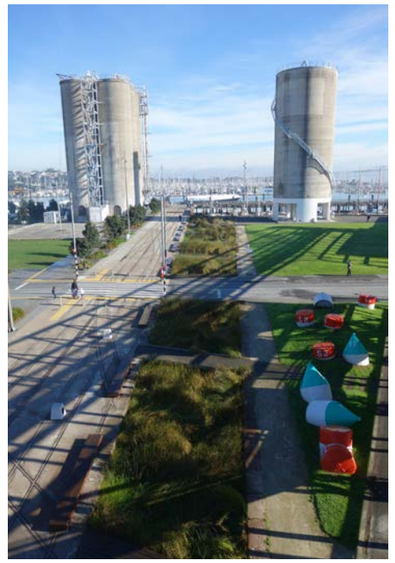


Figure 76: Active WSUD, Silo Park, NZ

Figure 77: Adaptive programming of existing infrastructure. High Line, NY

Figure 78: Cultural celebration of Turbine Hall. The Weather Project, 2003, Olafur Eliasson. Tate, London

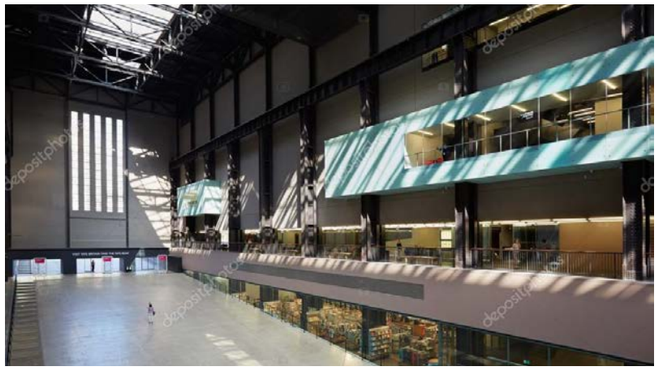


Figure 81: Turbine Hall, Tate Modern UK

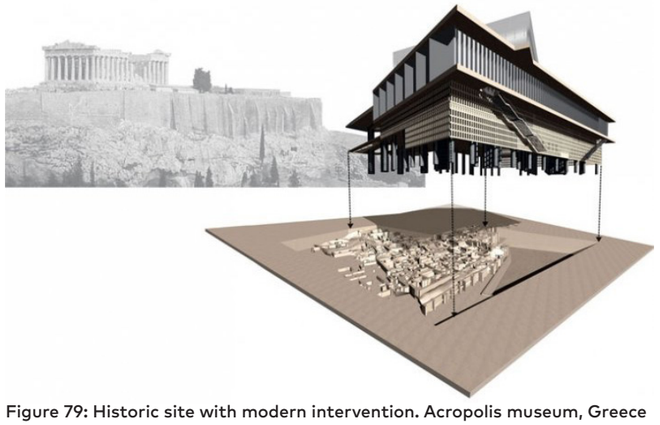


Figure 79: Historic site with modern intervention. Acropolis museum, Greece

2.4.7.3 Challenges

- Delivering a significant amount of cultural offerings and creative spaces to support creative industries locating and thriving within the Site .
- Carefully considering future permissible land uses to respect and continue to support the ports and maritime uses of the site and its surrounds
- Continuing engagement from the Place Strategy, through to Site rezoning and beyond with indigenous stakeholders to embed connection to Country and ensure meaningful outcomes.
- Balancing retaining and interpreting heritage items, such as rail tracks, with the historic shoreline and water songlines, with a new flood-proof ground plane and the reality of feasible development outcomes.
- Carefully consider the relationship between providing a new, elevated ground plane (to mitigate flooding) in parts of the Site and the existing ground plane, of which, the vast majority of the Site sits on reclaimed land.

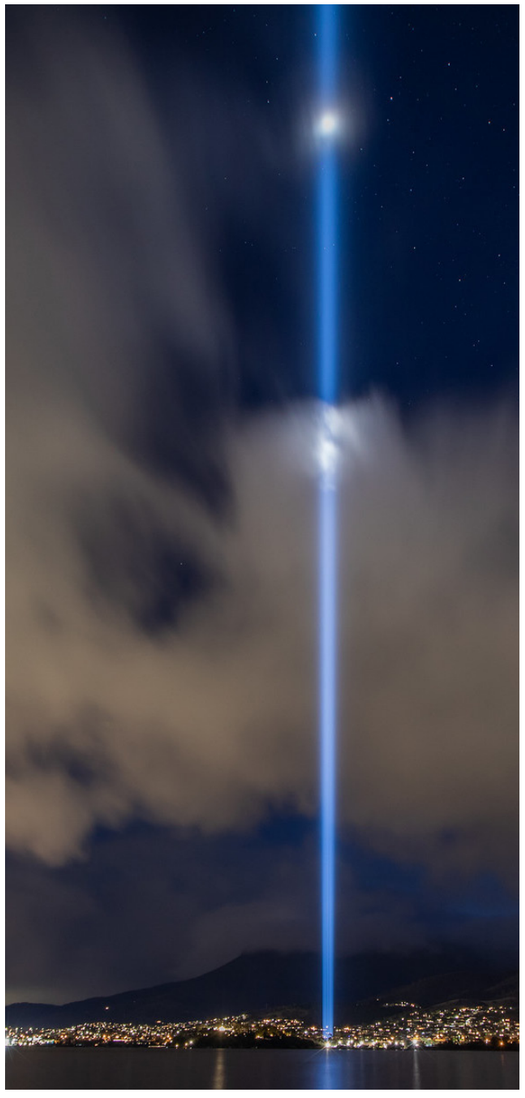


Figure 80: Light installation, MONA Hobart

2.0 Site Appreciation and Opportunities

2.4 White Bay Power Station (and Metro) Sub-precinct

2.4.8 Infrastructure Delivery and Governance

2.4.8.1 Place Strategy Directions (Nov. 2021)

Recognise that the Site will evolve over time and that multiple stakeholders are required to ensure that White Bay Power Station (and Metro) Sub-precinct is successfully delivered.

- **Direction 13** - Use a whole-of-government approach to deliver strong and coordinated place outcomes for Bays West over time
- **Direction 14** - Provide services and infrastructure to support the needs of the existing and future community of Bays West and its surrounds as it grows over time.

Figure 82: White Bay Sub-precinct with temporary works

Figure 83: Construction of Rozelle Bay interchange with temporary shared active transport link

Figure 84: Robert Street culvert

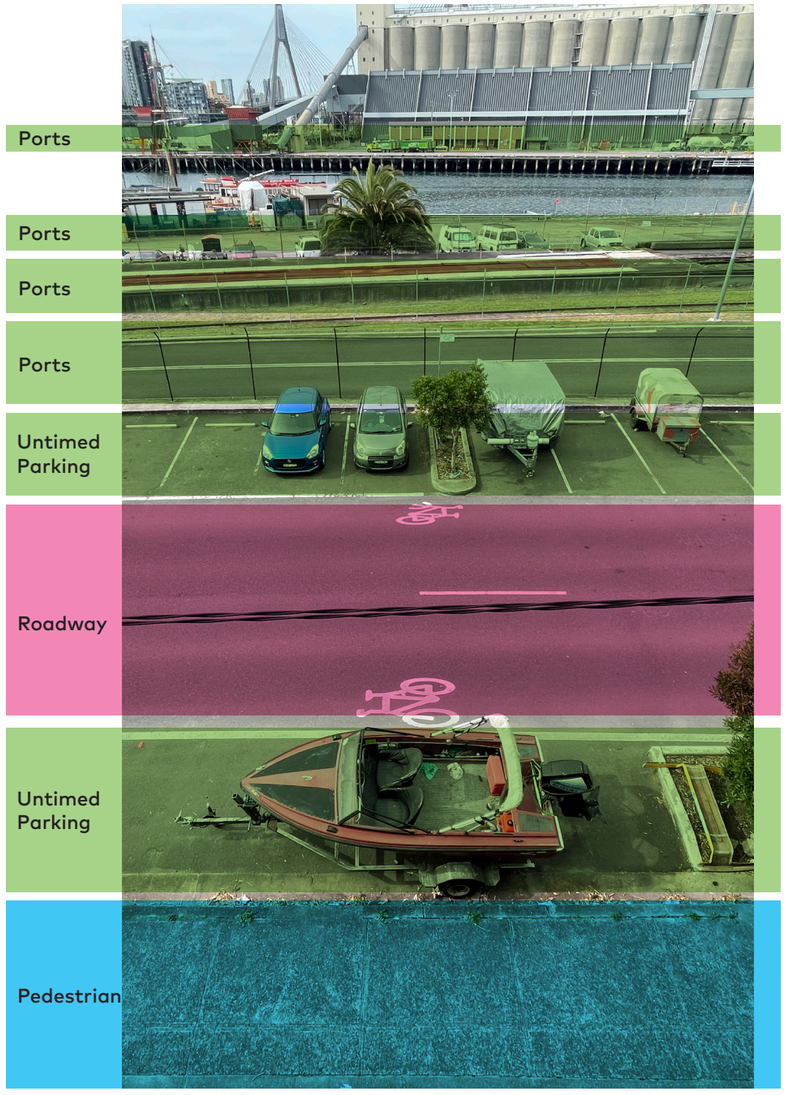


Figure 85: Site ownership and usage (looking from Robert Street to Silos across White Bay)

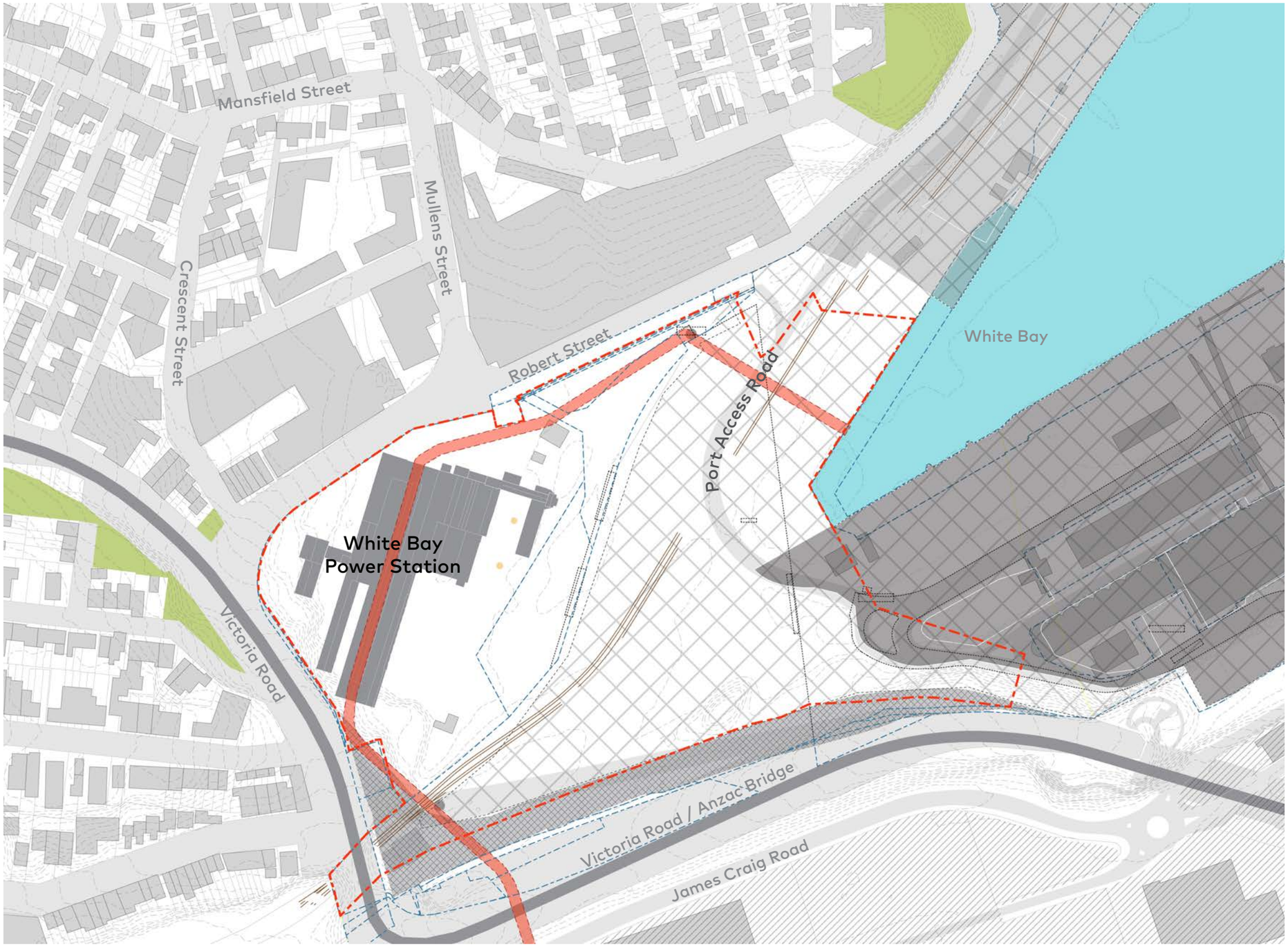


Figure 86: Infrastructure Delivery and Governance Analysis

Legend

- Site Boundary
- Easements
- Rozelle Bay Leased Zone
- White Bay Leased Zone
- Easements Boundary
- Stakeholder Constraints
- Glebe Island Leased Zone
- Cooling Canal for White Bay Power Station
- Rail Track
- Ports owned land

0 25 50 100

2.0 Site Appreciation and Opportunities

2.4 White Bay Power Station (and Metro) Sub-precinct

2.4.8 Infrastructure Delivery and Governance

2.4.8.2 Opportunities

- Adopt an all-of-government approach to the Sub-precinct, conquering governmental and physical borders to maximise people and place-led outcomes.
- Realise an end-state desired outcome to balance public benefit and strategic needs for government to work towards – noting required detailed investigations staging factors, and consultation with all communities.
- Take a co-ordinated Precinct-wide approach to the resolution and delivery of key system/network infrastructure, including major project integration with site resilience and environmental management objectives including flooding, water quality, energy and waste.
- Provide broader opportunities to value-add beyond the boundaries of the Precinct, to consider zones where integrated renewal could be considered and deliver integrated community services and infrastructure that improve the amenity and wellbeing of existing and emerging Bays West and greater communities.
- Utilise large scale spaces created by major infrastructure projects and zones to accommodate the large active recreation elements.
- Identify key investment items, including: investigate the reinstatement of a crossing from Bays West to Pyrmont, integrated ports facility with public domain on Glebe Island, the adaptive reuse of White Bay Power Station, and the staged delivery of feature public domain zones across the Precinct, including the harbour foreshore promenade.
- Provide a diverse social infrastructure offering throughout the Precinct, responding to the changing needs of the local community of Bays West as it grows, and to the benefit of residential and employment retention and growth.
- Leverage innovative and streamlined delivery mechanisms and governance approaches to ensure holistic approach to deliver a truly sustainable precinct that meets and exceeds outlined measures and targets.

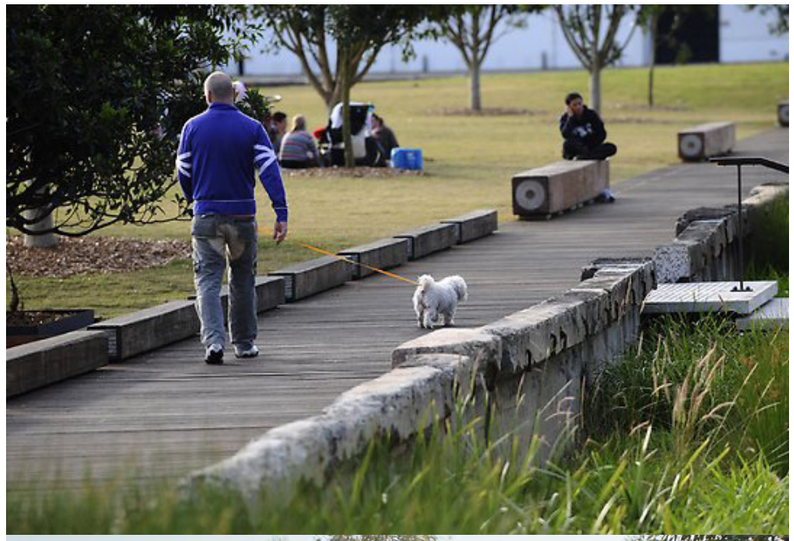


Figure 87: Celebrated WSUD landscape infrastructure

Figure 88: Expressed functional infrastructure

Figure 89: Interim provide community amenity and build identity during implementation phases

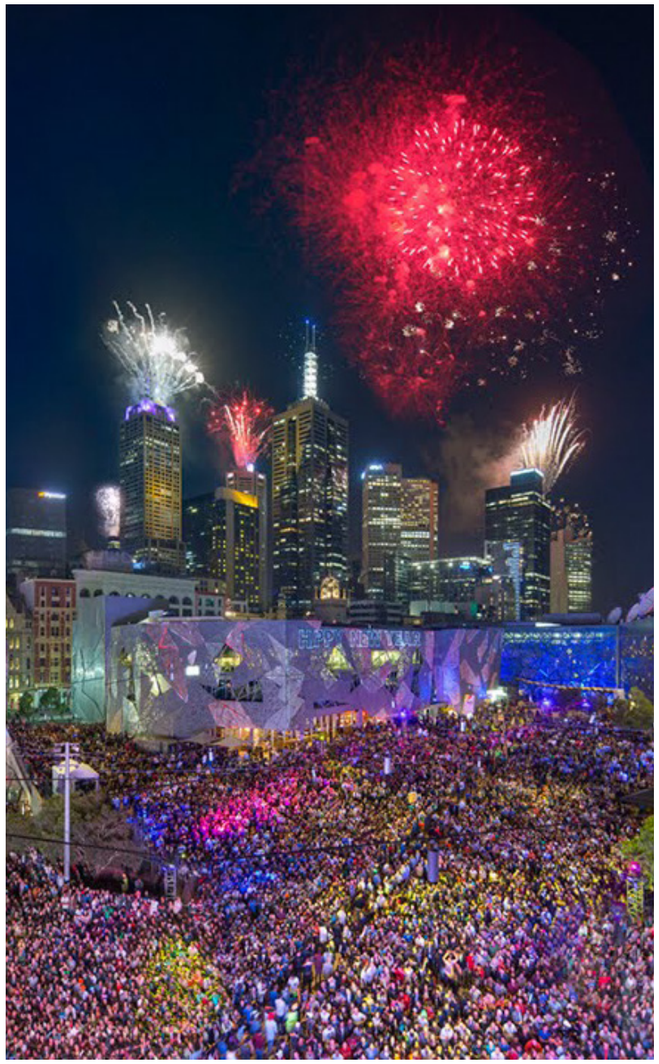


Figure 90: Public open space that can accommodate large-scale events

2.4.8.3 Challenges

- Implement best practice governance models and delivery mechanisms to prioritise social, environmental, cultural, economic outcomes.
- Co-ordination of investment and funding mechanisms
- Delivery mechanisms to ensure sustainability outcomes and site regeneration outcomes.
- Co-ordination to enable integration with city-wide infrastructure, while future-proofing for forecast growth.
- Delivery mechanism to ensure proper provision of social infrastructure to support existing and new residents, workers, and visitors.
- Mechanisms to ensure diverse built outcomes for the precinct.
- Prioritise delivery of connected and quality public amenities at all phases.
- Deliver interim activation projects to unlock unused precinct lands for pubic amenity prior to and during multiple implementation phases.
- Integration of post-COVID requirements with provision of community benefit.

Further detail for contributions will be explored at the rezoning stage.

2.0 Site Appreciation and Opportunities

2.5 External Interfaces

There are a number of critical external interfaces to consider for the White Bay Power Station (and Metro) Sub-precinct.

These interfaces need to be considered in the UDF, master plans and subsequent rezoning and development applications.

The external interfaces that need to be considered are:

- Victoria Road (west) - lack of access points to/from the site, the sharp and significant change in topography and also noise and particulate matter pollution from the traffic
- Robert Street - the heritage conservation area and the existing urban services and warehouses on the northern side of Robert Street
- SP0007 - the heritage listed sewage pumping station on Robert Street
- Working Harbour - existing marine oriented activities, silos, heavy vehicle movements and land-based industrial activities
- White Bay - the foreshore of White Bay
- Victoria Road (south) / Anzac Bridge - lack of access points to/from the site, the sharp and significant change in topography and also noise and particulate matter pollution from the traffic.

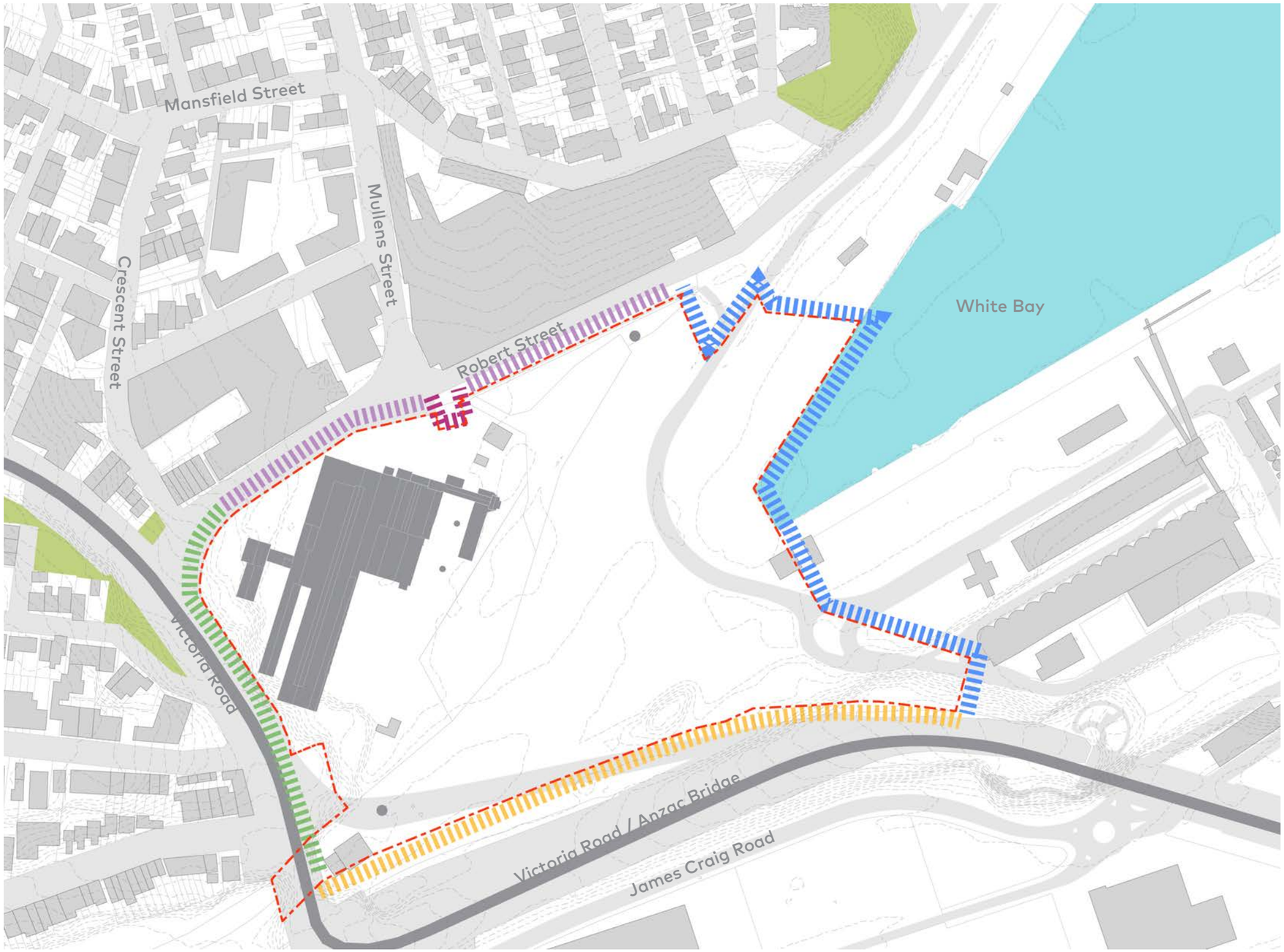


Figure 91: External Interfaces

2.6 Internal Interfaces

There are a number of critical internal interfaces to consider for the White Bay Power Station (and Metro) Sub-precinct.

These interfaces need to be considered in the UDF, master plans and subsequent detailed rezoning controls and development applications.

The internal interfaces that need to be considered are;

- White Bay Power Station - a State Heritage listed building with significant elements both outside and inside the building
- Heritage Penstocks - these are heritage listed items that align with the water cooling channel that takes water in from White Bay, underneath the Turbine Hall of the White Bay Power Station and discharges in to Rozelle Bay
- The Metro Station - The Metro Station interface needs to be considered in light of, station entry/exit, desire lines and pedestrian/cyclist/vehicular traffic around the station, the services buildings and the need for access to these buildings. Ongoing co-ordination for delivery of Metro station and related infrastructure and the surrounding Site will be undertaken by NSW Government
- The Intake Substation (ISS) - Subject to design and approval, an approximately 10m high building that provides power to the Sydney Metro West network comprising transformers, switch rooms, cooling elements and a buffer around the building for safety and noise mitigation.

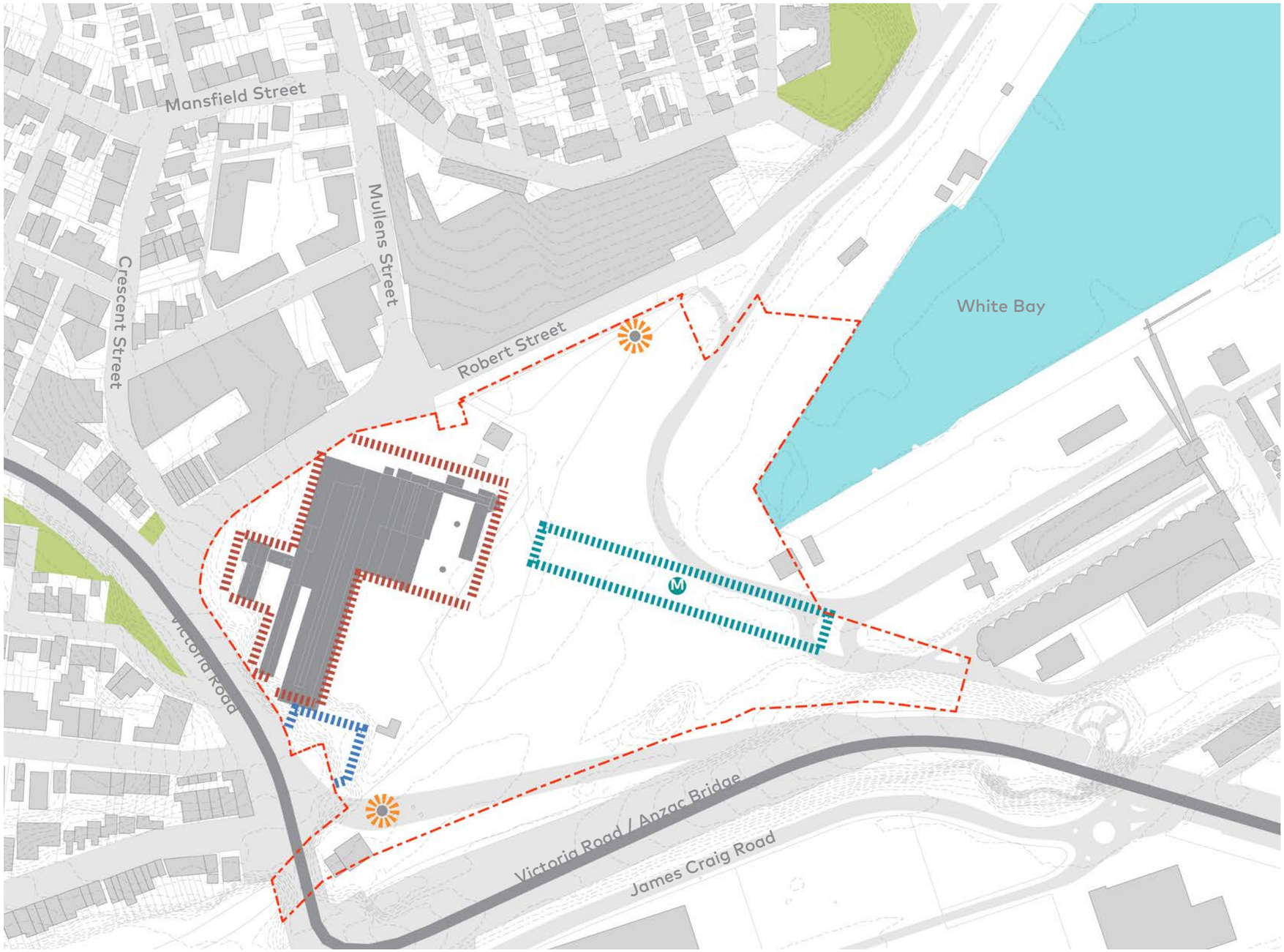


Figure 92: Internal Interfaces

3.0 Case Studies

A wide array of regeneration developments globally have been studied and outlined in background studies to date.

A selection of case studies have been critically reviewed for their relevance to the White Bay (and Metro) Sub-precinct.

Figure 93: View from south east of the White Bay Power Station looking north east towards White Bay

3.0 Case Studies

3.1 Case Study Lessons from the Place Strategy to Sub-precinct

Each benchmark has been assessed using the following criteria:

1. Similar ~12ha scale as the Sub-precinct
2. Unlocking of waterfronts for public use
3. Integration of new uses with ongoing working harbour uses
4. "New" types of urban environments, from the built form to the public domain
5. Meaningful consideration and use of physical, cultural, and landscape heritage
6. Strategies for interim uses to maximise public amenity and identity across phased implementation
7. Development of public transport networks and interchanges to waterfronts
8. Consideration of interfaces with surrounding established urban fabric
9. Consideration for uplift and equity for new and emerging communities
10. Delivery and governance structures

3.1.1 DUMBO, New York, USA

The Down Under Manhattan Bridge Overpass (DUMBO) precinct is located within the borough of Brooklyn, New York and throughout the 19th and early 20th Centuries was used industrial and warehousing uses before being redeveloped in the late 20th Century to accommodate a wide range of uses including tech startups, art galleries and residential dwellings.

Uses, Users and Activities

- One of New York's premier arts districts and hosts a number of galleries, art festivals, music festivals and markets year-round
- 25% of New York's total tech firms are located within a 10-black radius
- 500 tech and creative firms that employ over 10,000 people
- Contains a significant amount of social housing
- Comprised of predominantly fine grain, 4-12 storey buildings with no setbacks or podium forms and a variety of uses within them including commercial, cultural, creative and residential

Figure 94: Fine grain, cobbled streets, with built form defining the streetscapes

Figure 95: Adaptive re-use of heritage warehouses for creative and retail services

Figure 96: High density, medium scaled built form that considers significant views to, from and within the precinct

Figure 97: Reuse of heritage buildings for retail

Figure 98: Regular cultural events attract visitors

Figure 99: Theatres, interspersed with art galleries

Figure 100: District-scale waterfront open space and interplay

Lessons for White Bay Power Station (and Metro) Sub-precinct

- Located "across the water" from Manhattan, similar to the relationship with Sydney CBD
- Similarly transport constrained by water and regional roads
- A built form typology that is more akin to a traditional, older CBD than a contemporary business precinct
- Multi-modal transport interchange, subway and local buses
- Provision of a large, waterfront park
- Cobbled streets ensure slow moving traffic and pedestrian and cyclist priority
- DUMBO was delivered by a single developer over a long period of time with transitional and temporal uses

The centre of the Brooklyn Tech Triangle

3.0 Case Studies

3.1.2 The Navy Yard, Philadelphia USA

The Naval Yard in Philadelphia is a large waterfront area that has partially been converted from working harbour, naval yards to a bustling, mixed use innovation precinct.

Characteristics, Uses, Users and Activities

- 500ha industrial site re-purposed as a Smart Energy Campus centred on energy innovation
- 30,000 jobs at build-out across over 1,000,000m2 of lease-able life science manufacturing, R&D, office, hotels, maker space and retail space
- 150 companies and organizational headquarters
- 3,000 residential units in converted navy buildings
- Penn State University graduate engineering, business, and research campus
- Over 13 LEED®-certified buildings
- 2Ha Central Green delivered in first phase supported by 8Ha public open space and 10km of public waterfront
- Partnerships with the West Philadelphia Skills Initiative (WPSI), with over 1,000 participants to date

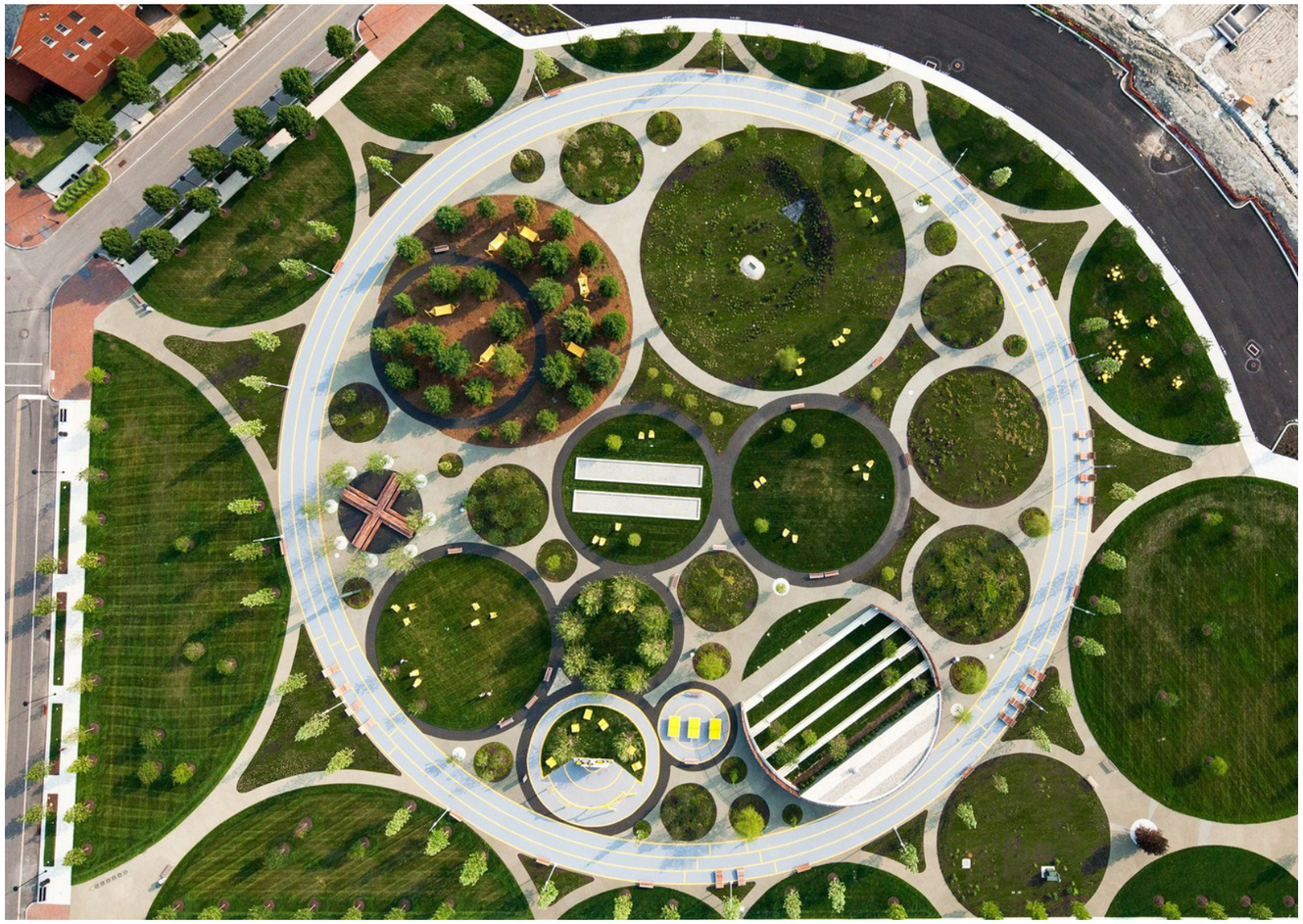


Figure 104: Distinctive central green delivered in phase 1

Figure 103: Adaptive re-use of heritage navy building

Figure 102: Adjoining residential programming in subsequent phases

Figure 101: 10km new public waterfront links

Lessons for Bays West

- Prioritise delivery of public domain and open spaces to define identity and attraction
- Balance residential and commercial to facilitate 18-hour active economy
- Celebrate historic rail buildings for dynamic commercial and residential uses
- Facilitate social uplift through academic and community partnerships
- The Master Plan has been regularly updated in 2004, 2013 and 2021 to respond to changing market conditions over time, emerging technologies and different ways of living our lives.

An iconic green public identity

Figure 105: Adaptive re-use of gasholder and rail buildings

Figure 106: Year-round programming attracts re-visitation

Figure 107: Facebook and Google investment

3.1.3 Coal Drop Yards, London, UK

Characteristics, Uses, Users and Activities

- Reinvention of 1850s heritage ornate cast-iron and brick rail buildings as a new 10,000m2 shopping district with close to 60 residential units
- The yard unlocks the site as a new permeable and distinctive district, contributing to the wider transformation of King's Cross
- Historic Victorian gasholders restored and re-purposed into 1,500m2 public park and distinctive residential development
- Google and Facebook continuing development through COVID-19, generating some 8,000 jobs

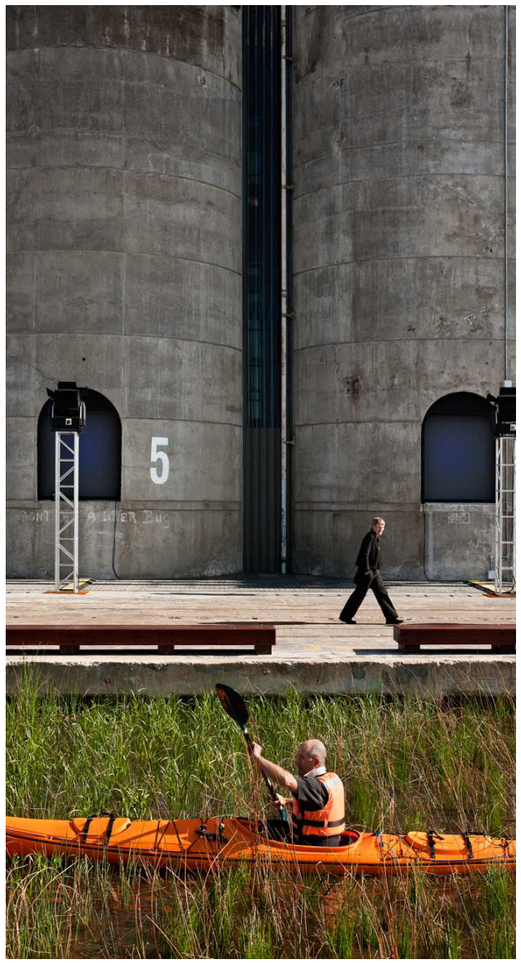
Figure 108: Aerial photograph

Lessons for White Bay Power Station (and Metro)

- Dynamic interpretation of heritage fabric in a bold new identity
- Consideration of alternative approach to re-use of Power Station without requiring intense repair and maintenance investment
- Fabric may be re-imagined as a 'ship in a bottle'
- Establish public programming strategy to attract revisitation to 7-day 18-hour economy
- Leverage cultural institutions in public domain activation and attraction
- Open up district to maximise urban integration
- Permeable public domain for amenity of community and businesses

Heritage woven in a dynamic new active heart

3.1.4 Silo Park, Auckland, NZ



Catalyst for greater waterfront renewal

Characteristics, Uses, Users and Activities

- Prominent site on Auckland Waterfront
- Delivered as a first catalyst for the greater Wynyard Quarter, Auckland's largest urban revitalisation project
- Silos and other infrastructure now used for arts, events and festivals and as a backdrop for movie projections
- Offers diverse built form functions all complimenting the existing ' working waterfront' activities

Lessons for Bays West

- Deliver significant regional public domain and social infrastructure in early phases, with consideration of future growth
- Celebrate legacy fabric of WBPS, Silos, and Glebe Island Bridge, together with ongoing ports uses in living experiences of White Bay's continuing working infrastructure identity
- Infuse functional character of existing built fabric and vegetation in public domain planting and material strategies
- Interrogate existing natural and built layers to reveal the site history and enable new community access to water
- Develop functional WSUD measures that reveal the water story

Unlock new community benefit, with the community

3.1.5 Steel Stacks, Philadelphia, USA

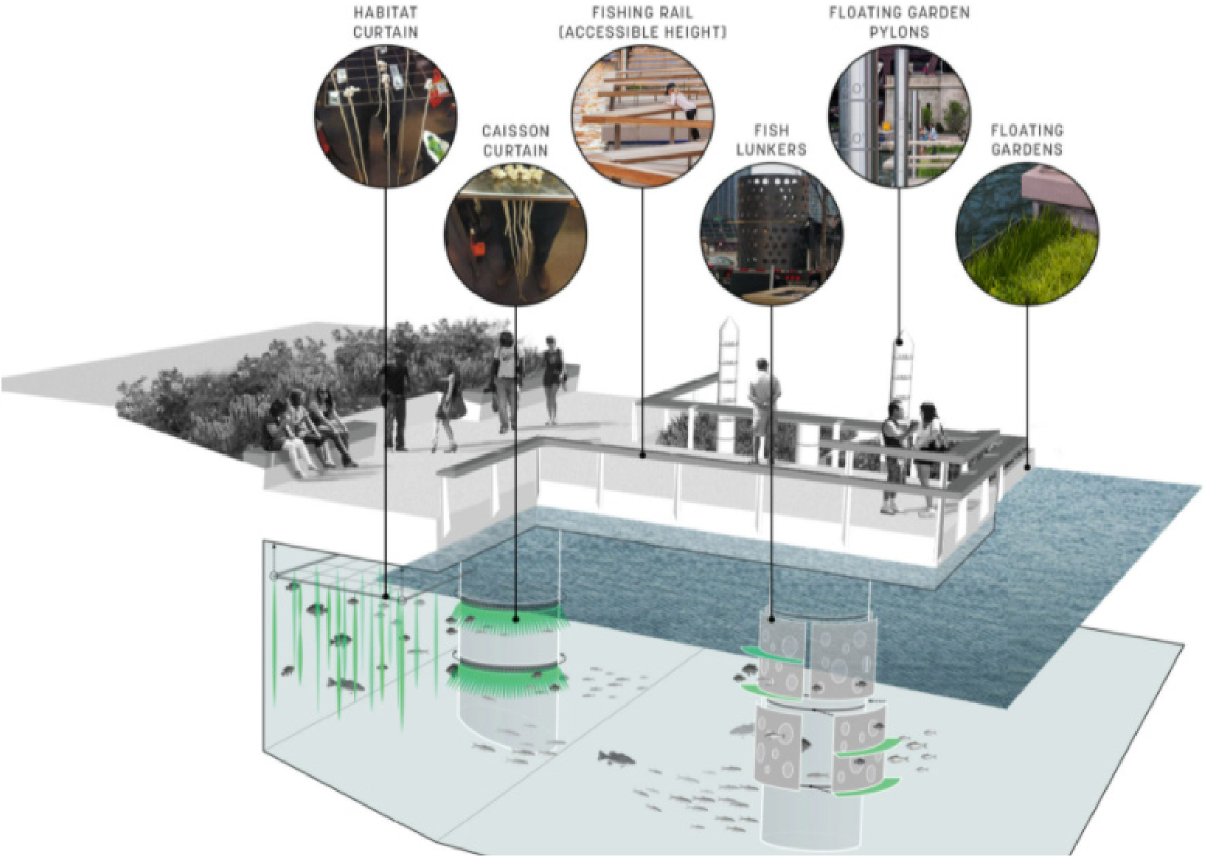
Characteristics, Uses, Users and Activities

- Bethlehem Redevelopment Authority established Bethlehem Works to oversee the development of new industrial parks and intermodal transportation facilities, and the 9.5 acre SteelStacks Arts + Cultural Campus
- Integrated with city's well-established South Side neighbourhood
- Unifying landscape centred on New 'town green,' developed with the local community, to support the community and regional development initiatives.
- "flex" event space adjoining the ArtsQuest building for smaller performances, outdoor dining, and overflow event space for indoor/outdoor events
- Community programs including a reading and theatre space facing PBS 39 for outdoor programs, family picnic and play areas
- Integration of public art to engage the community and site, funded by the National Endowment of the Arts
- Elevated pedestrian promenade allows visitors to walk through the industrial archaeology of the site along the same path that the raw materials to produce steel were delivered
- Environmental challenges including presence of soils that could not be disturbed or penetrated, except in isolated cases

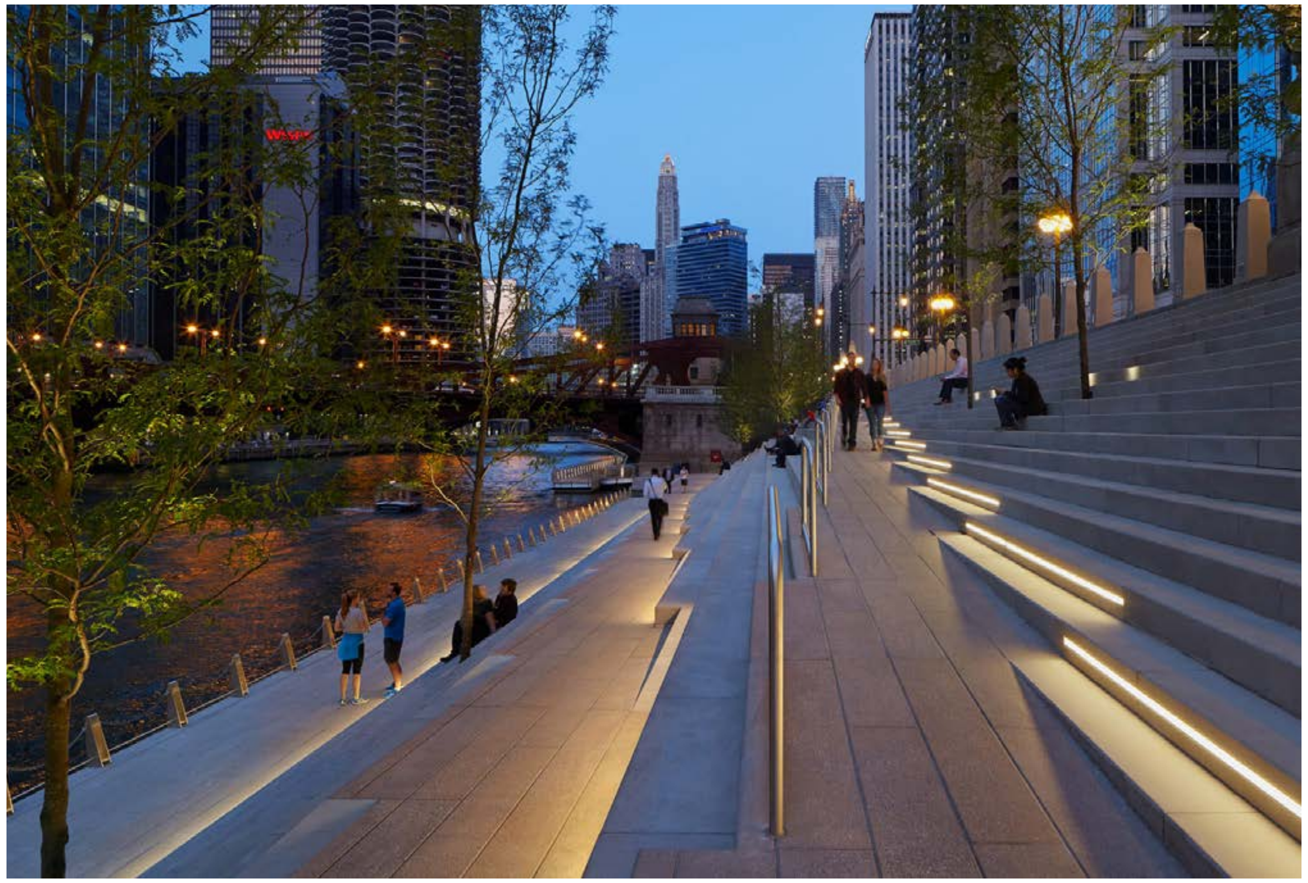
Lessons for White Bay Power Station (and Metro)

- Maximise identity and address of WBPS to public domain
- Develop strategies for year-round varied public programming
- Consider multi-level public domain links to link various levels of Balmain, Anzac bridge, and Glebe Island
- Develop new grade separated links to provide new access and experiences of the Power Station and other sensitive built and environmental fabric
- Ensure clear governance structure for long-term delivery
- Continue community engagement to develop design and programming strategies

3.1.6 Riverwalk, Chicago USA



Connect community and water



Characteristics, Uses, Users and Activities

- Reclaim and reconnect access to the Chicago River for the ecological, recreational and economic benefit of the city
- Extends over six city blocks, connecting broader pedestrian connections along the river between the lake and the river's confluence.
- Array of 'rooms' serve peak activity periods while offering a peaceful respite from downtown activity
- Accommodates the river's annual flood dynamics of nearly seven vertical feet
- Some AUD$140 million budget funded by federal loan paid back through developed retail
- Spurred AUD$10 million in local area investment.
- Steps descend to nearly river level in the Marina Plaza providing users direct connection to the water, including all forms of boat and small craft docking
- New public amphitheatres provide all-abilities access to the water's edge, with seating and new trees providing greenery and shade.
- A series of piers and floating wetland gardens offers an interactive learning environment about the ecology of the river, including opportunities for fishing and identifying native plant

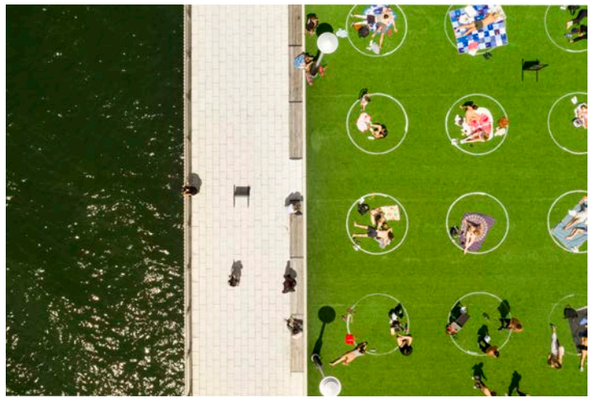
Lessons for Bays West

- Structure a diverse range of public domain uses to support wide ranges of activity and scales
- Integrate ecological initiatives for rejuvenation and education
- Provide places for community water recreation
- Develop WSUD strategies to reveal and celebrate the living story and natural water courses of the site

3.1.7 Domino Park, NY USA

Characteristics, Uses, Users and Activities

- Extension of public streets reconnects the Williamsburg neighbourhood to the East River for public use for the first time in 160 years.
- Delivered in first phase of the transformation of the greater 11-acre former Domino Sugar Factory site, including the adaptive reuse of the Landmarked Refinery Building for creative office space and four new mixed- use residential buildings that will house 700 units of affordable housing.
- The first of a total of 6-hectares of public spaces, the 2-hectare park provides beach volleyball, a playground, a dog run, a taco stand, water features, lawns and plentiful seating.
- Integrates over 30 large-scale salvaged relics, including 21 original columns from the Raw Sugar Warehouse, gantry cranes, screw conveyors and syrup tanks.
- Centre of public activity, serving as gathering ground for public protesting, and accommodating changing needs imposed by social distancing requirements.



Lessons for White Bay Power Station (and Metro)

- Extend existing public links between Rozelle and Balmain to maximise public ownership of site
- Champion reinstatement of Glebe Island Bridge link and potential new link to Glebe via Rozelle Bay
- Enable flexible spaces to support an array of community activities and events
- Maximise solar orientation while celebrating desirable easterly views to CBD and Harbour Bridge
- Draw on and preserve tough, industrial character of the site and Power Station
- Develop ecological strategies to contribute to coastal resilience

Holistic building and landscape heritage

3.1.8 Tonsley Innovation Precinct, Adelaide, Australia

Characteristics, Uses, Users and Activities

- Adaptive re-use of former Chrysler and Mitsubishi manufacturing plant.
- $253 milllion government investment.
- 1,200 residents and 850 dwellings with 15% affordable housing.
- Adaptive reuse of Boiler House as a focal point for community and workers, including microbreweries, distillers, restaurateurs and café operators.
- Entrepreneurs, researchers and businesses large and small, co-locate to drive productivity, innovation and global competitiveness.
- Accommodates Flinders University and TAFE SA
- Governed by a partnership between the State Government through Renewal SA, university and industry
- Tonsley's four focus sectors reflect South Australia's major economic strengths and opportunities: Health & medical, Cleantech, Software and simulation as well as Mining and energy services.
- Commitment to low carbon and climate resilient infrastructure, technology and systems.

Drive new community and employment growth

Lessons for Bays West

- Leverage government-owned land at Bays to maximise provision of affordable housing and commercial offering to foster community growth and uplift, coupled with attracting new talent
- Engage with commercial and education sectors
- Incorporate heritage fabric to provide identity from before day 1
- Recognise shifting needs of the port and new employment trends to facilitate continuous employment growth

Changing how people move through the City

Figure 110: Celebrate rail heritage in public domain

Figure 112: New vistas and links

Figure 111: Balance regeneration with benefit

3.1.9 High Line, New York, USA

Characteristics, Uses, Users and Activities

- 2.4km long public park built on an abandoned elevated railroad stretching from the Meatpacking District to the Hudson Rail Yards in West Manhattan.
- Translates the biodiversity that took root after it fell into ruin in a string of site-specific urban micro-climates along the stretch of railway that include sunny, shady, wet, dry, windy, and sheltered spaces.
- Preserves the rarefied quality of being both removed from and embedded in the city – an experience formerly available to the privileged few that were able to walk the line, but now available to the general public.
- Since opening in 2009, the High Line has been credited with spurring the redevelopment of the surrounding neighbourhoods, with nearly $2 billion of new private investment and the creation of thousands of jobs.
- Dedicated multimedia contemporary art program foster a productive dialogue with the community artists and surrounding urban landscape.

Lessons for White Bay Power Station (and Metro)

- Rejuvenated rail infrastructure can play a pivotal role in regional cultural and economic transformation
- Celebrate rail tracks and heritage fabric in public domain and identity
- Leverage site level changes to create new connections and vistas, including to water
- Curate cultural programs to celebrate local culture and attract visitation
- Ensure diversity of offerings and programming to ensure community equity and affordability

3.1.10 TechTown, Detroit, USA

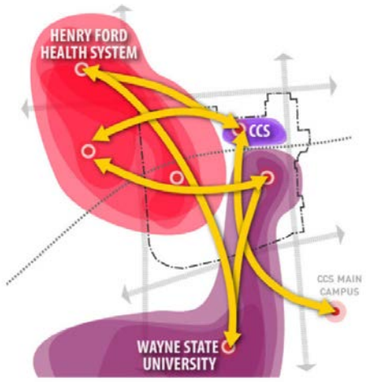
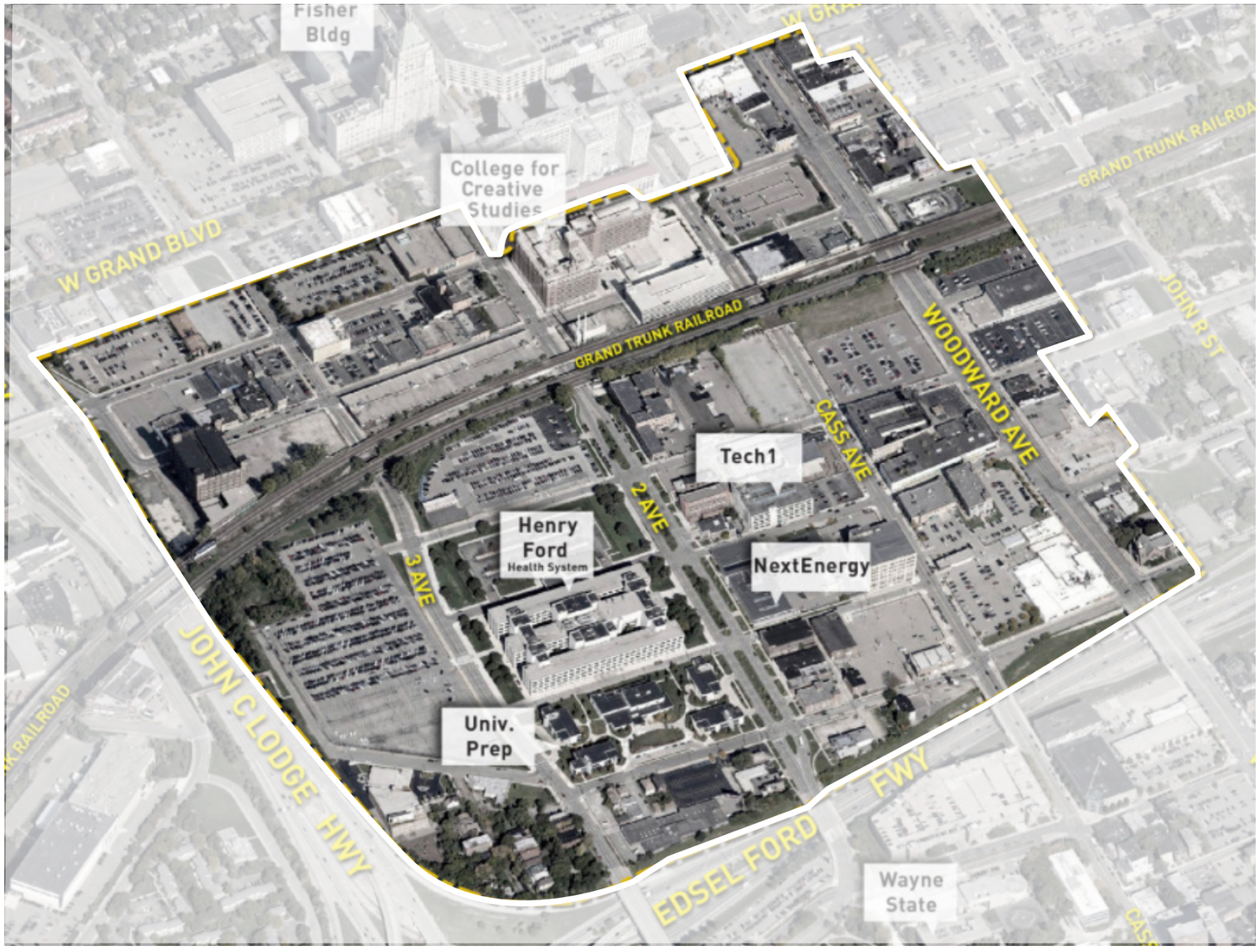


Figure 113: Institutional engagement platform

Figure 114: Community uplift programs



Partnerships for social enterprise

Figure 115: Engaged public domain

Characteristics, Uses, Users and Activities

- 12-block, 17 ha district located north of Detroit
- Partnership between tertiary and commercial stakeholders
- Preserves the district's history and character through adoption and re-purposing of historic buildings
- SWOT City program adopts economic development and start-up acceleration strategies to lift surrounding communities
- Dynamic central public plaza activated by a variety of flexible places, programs, and design elements foster exchange of ideas throughout all seasons
- Developed through close engagement with local business and communities

Lessons for Bays West

- Engage with local communities and businesses in detailed design, programming, and implementation strategies.
- Provide growth strategy for improvement for neighbourhood businesses and communities.
- Provide strategies for continued affordability of housing and commercial uses.
- Deliver legible core public spaces and social programming in early phases to enhance amenity and uplift.
- Leverage existing identity and activate unique public domain through curate of public events and activation
- Critical role of meaningful engagement with stakeholders and community groups

Extend the innovation corridor

3.1.11 Seaport District, Boston, USA

Characteristics, Uses, Users and Activities

- Direct rail link to Harvard, MIT, Kendall Square, MGH, and downtown Boston
- Direct rail link to over 50 institutions including Harvard, MIT, Kendall Square, and MGH, as well as Google, Microsoft, Apple, IBM, Facebook, and Amazon
- Fastest growing part of Boston today and has stimulated significant economic growth in the city.
- Over 5,000 new jobs have been created since 2010, with over 200 startups
- 40% of the companies located in the Innovation District share space in co-working spaces and incubators
- Over 1,100 housing units have been constructed, including 300 micro-units.
- Centred around rejuvenation of historic warehouse buildings
- Cultural connections to Institute for Contemporary Art, and Children's Museum
- Includes public open spaces and District Hall, the world's first free-standing public innovation centre.

Lessons for White Bay Power Station (and Metro)

- Prioritise public programming and community facilities
- Pedestrian movements must be prioritised
- Foster a cultural ecosystem similar to Carriageworks
- Provide diverse size and design of buildings
- Forge relationships with primary, secondary, tertiary institutions, business entities and NGOs.

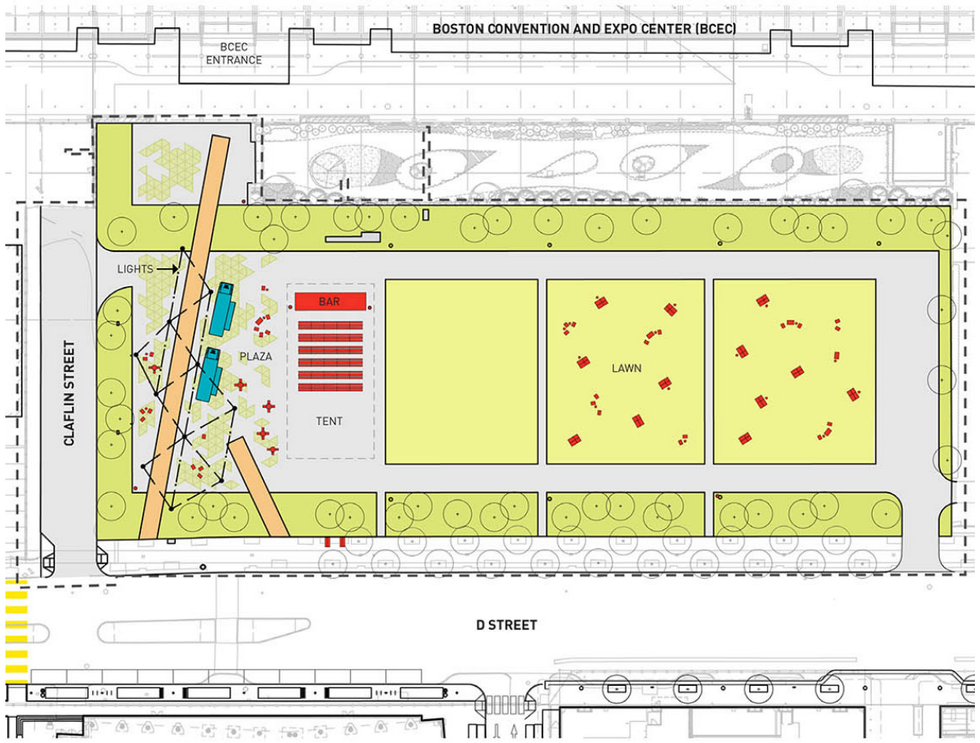
Figure 118: Bold cultural development in early phases.

Figure 116: Adaptive re-use of heritage fabric for community infrastructure

Figure 117: Anchor innovation investment

Figure 119: 18-hour programming

3.1.12 Lawn on D, Boston, USA



Characteristics, Uses, Users and Activities

- Developed in partnership with Massachusetts Convention Centre Authority on land earmarked for future convention centre expansion.
- Envisaged as a temporary low-cost plaza to provide amenity to adjoining residential uses
- Originally designed for cost-effective implementation, flexibility, and ease of transformation.
- A flexible, vibrant, and temporary urban space—to be an early arrival on D Street, setting the tone for civic impact and expressing the ambitions of a new district.
- Hosts a range of shorter-term art installations and projects, attracting year-round regional visitation
- Moveable furniture and games let visitors make the space their own, moving things around to suit their needs
- Simple, cost-effective, yet bold, pavilions and materials serve budget and transportability, while defining a bold colourful identity
- Engaged communities in identification of short-term projects
- While originally imagined as a temporary experimental space, its resounding success has made it a permanent public green in an area of Boston in dire need of street-level activity

Temporary programming as test-bed for community needs

Lessons for Bays West

- Partner with agencies to define sites and develop strategies for early programming
- Partner with cultural operators to deliver a range of shorter-term art installations and projects
- Engage communities in defining programming, and utilise events as pilot test programs for future programming in future phases
- Create an opportunity for neighbours, locals and visitors to come together
- Deliver interactive, flexible, technologically advanced, inspired by art and events, and inclusive places

Unlock public benefits from before day 1

Figure 120: Redhook Crit, London

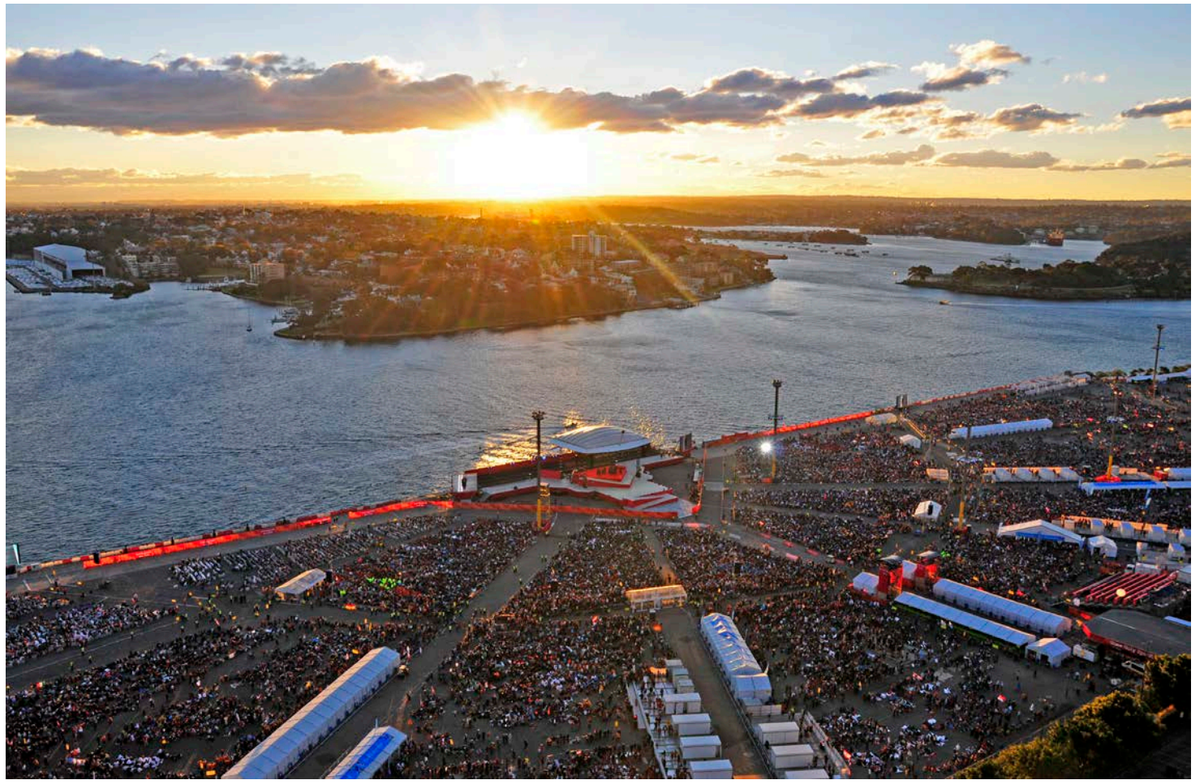


Figure 121: World Youth Day, Barangaroo

Figure 122: Slide the Square, Melbourne

Figure 124: Sydney marathon

Figure 123: Redhook Crit, Barcelona

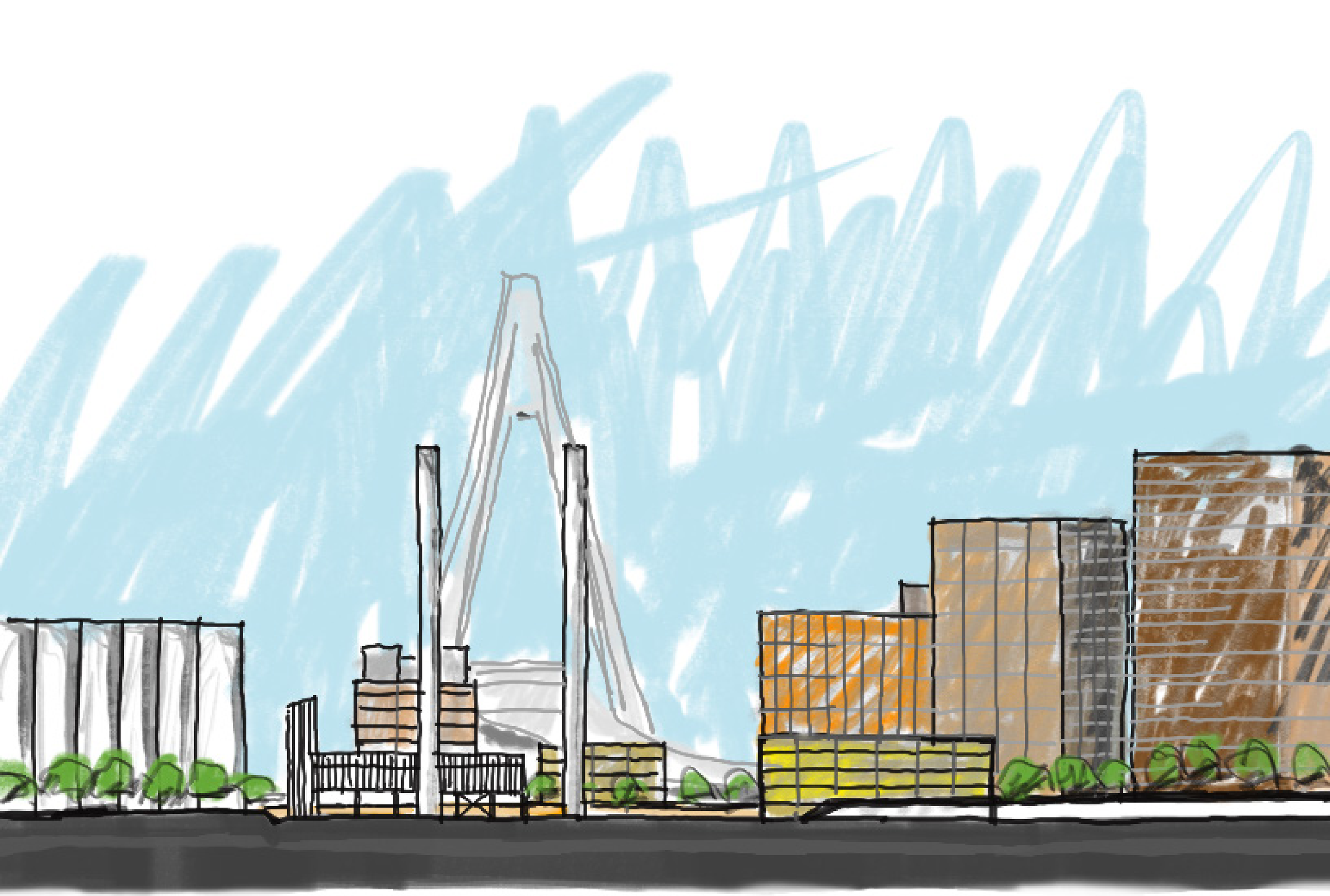
3.1.13 Interim Uses, Various Locations

Characteristics, Uses, Users and Activities

- Tactical and temporary activation of underutilised sites
- Low-cost interventions with high identity and activity
- Fill gaps in available sites for public events
- Extend existing activity networks to new sites

Lessons for White Bay Power Station (and Metro)

- Unlock areas of Bays, where safe to do so, for public programming and access
- Use temporary programming as a form of community engagement to ascertain community values and measure successful initiatives
- Service changing event requirements in light of social distancing
- Draw on observed use of White Bay Cruise Terminal - already busy with families cycling, scootering etc.
- Engage with event planners to fill gaps in events - from large en-masse celebration to cultural programming
- Engage with community groups to establish rotating programming to encourage identity and repeat visitation



4.0
Urban Design Framework

Figure 125: Elevation looking east from local street along White Bay Power Station

4.0 Urban Design Framework

4.1 The Urban Design Framework

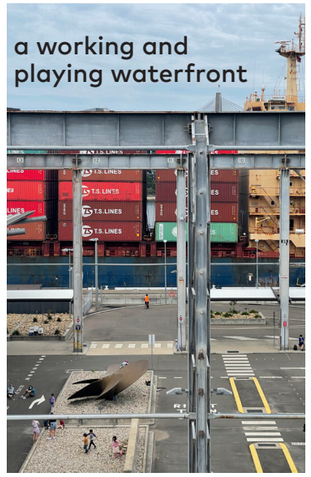
The Urban Design Framework is a suite of plans, objectives, principles and requirements that prescribe a desired outcome for individual precincts, and the Site as a whole. The UDF delivers a level of certainty about high amenity and accessibility outcomes to Council and the community and retains a level of flexibility for innovation and diverse design outcomes in the future.

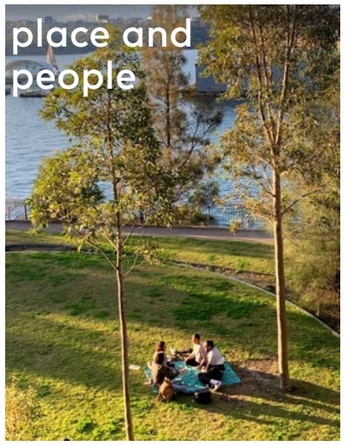
It is intended to be read in conjunction with the Bays West Urban Design Framework that formed part of the Place Strategy, but provides more site-specific guidance that has been refined through the participation of a number of stakeholders including;

- Department of Planning and Environment
- Sydney Metro
- Transport for NSW
- Place Making NSW and Place Management NSW
- Port Authority NSW
- Greater Sydney Commission
- Schools Infrastructure NSW
- Inner West Council
- NSW State Design Review Panel

The Urban Design Framework

- Outlines urban design principles that will underpin the proposed development including how Country has been embedded;
- Demonstrates that the proposed development can achieve high quality place outcomes;
- Proposes maximum building heights, building envelopes, amenity principles
- Assesses impacts on views to significant spaces and landmark structures.





Underpinned by an authentic Connection to Country

4.2 Key Strategic Design Documents

The following key documents act as the overarching guidance for the recommended amendments to the Central Precinct Master Plan:

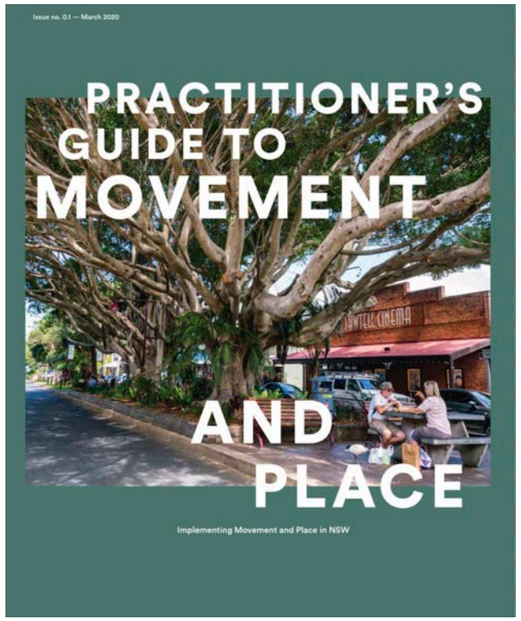
Better Placed

Better Placed is an integrated design policy for the built environment of NSW. The UDF considers the principles of Better Placed by; ensuring that through the delivery of a diverse range of activities and uses, that the future Sub-precincts are safe; are active day and night, weekday and weekend, winter and summer; and are equitable and universally accessible Sub-precincts and are resilient to climate change and environmental conditions.

Practitioner's Guide to Movement and Place

The role of the guide is to provide a common structure for place-based transport and city and town planning across NSW.

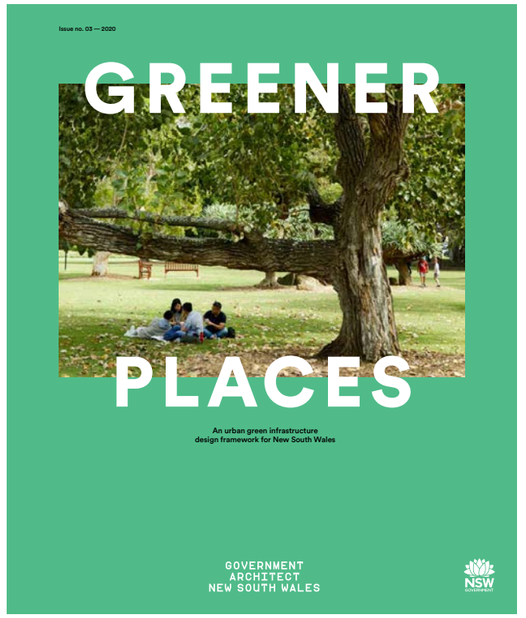
The UDF seeks to ensure the Movement and Place Guide principles are carried through the Master Plan by; providing for dedicated pedestrian and cycling paths to, through and within the Sub-precincts; prioritising public transport interchange, kiss'n'ride and taxi/rideshare movements over private motor vehicles; providing for amenity, surveillance and weather protection along interchange routes and pedestrian desire lines; providing for a car free pedestrian lanes, plazas and shareways within the Sub-precincts wherever possible.



Greener Places

Greener Places is a design framework for urban green infrastructure. Well-designed green infrastructure responds to 4 key principles: integration, connectivity, multifunctionality, and participation.

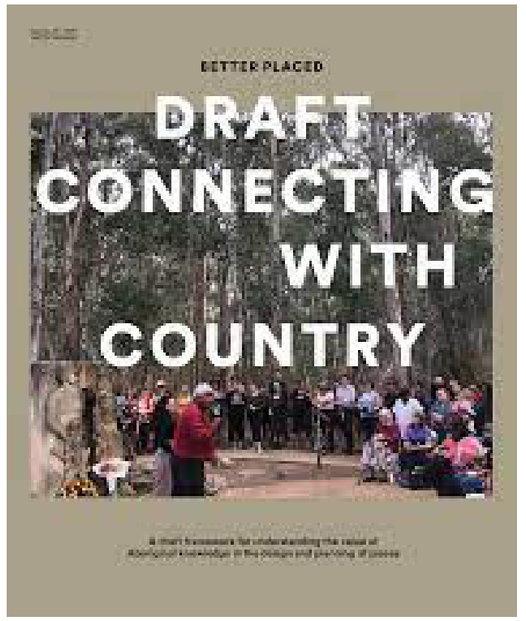
With particular relevance to the public domain and landscape sections of this report, the UDF seeks to ensure that the principles of Greener Places are achieved by; ensuring minimum quantums of public open space and publicly accessible open space are delivered; and providing minimum solar access requirements to public spaces; minimum canopy cover targets; a variety of complementary programmes throughout the extensive open spaces within the Sub-precincts to encourage participation.



Connection with Country (Draft) Framework

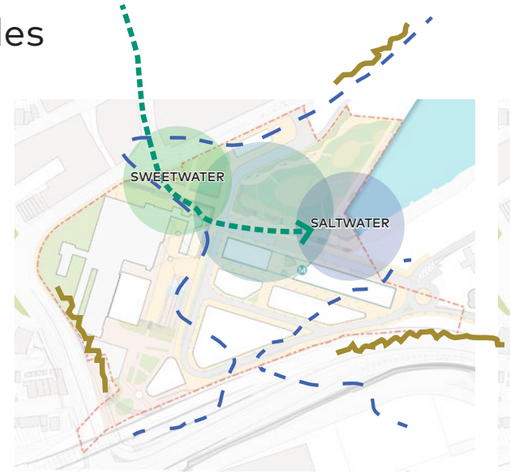
The ambition of Connecting with Country is that everyone who is involved in delivering government projects will support the health and wellbeing of Country by valuing, respecting, and being guided by Aboriginal people, who know that if we care for Country – it will care for us.

One of the key drivers of the Master Plan is a deep connection is explored through design that celebrates Sweetwater, Bitterwater and Saltwater (the lagoons, bays, river mouths and out into the ocean). The Connection to Country strategy also proposes to augment the former use of the site as a power station into a place of learning as a way of elevating knowledge as the power of the future.



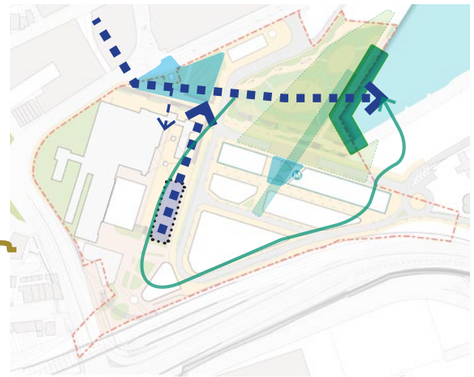
4.3 Urban Design Principles

The following are the Site specific urban design principles that reflect an understanding of the local character and leverage the Sites unique opportunities.



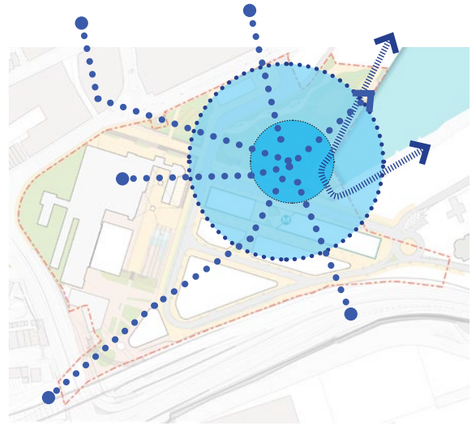
Connect to Country

Reveal, express and celebrate the natural and cultural narratives and knowledge from custodians to reveal the richness of layers and stories of place and embrace opportunities for learning and sky country within new built form



Functional Water Landscapes

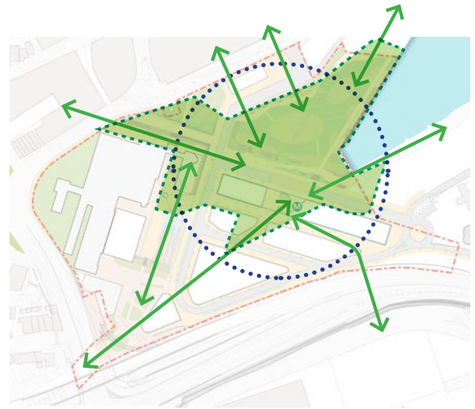
Celebrate the water story through a whole of site WSUD response that provides new public amenities and ecological rejuvenation



Connect Community and Water

Extend public, ground level links to the water, linking community and harbour with new maritime activities

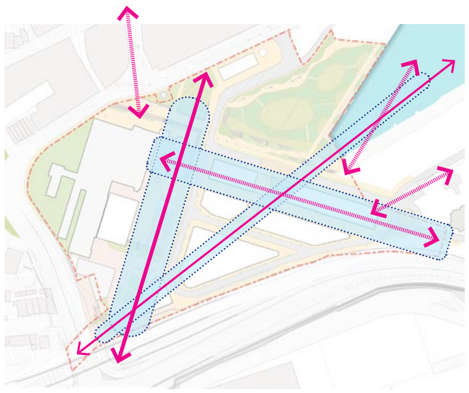
Consider the changing needs of the community, supporting regional and local growth



Consolidated Open Space

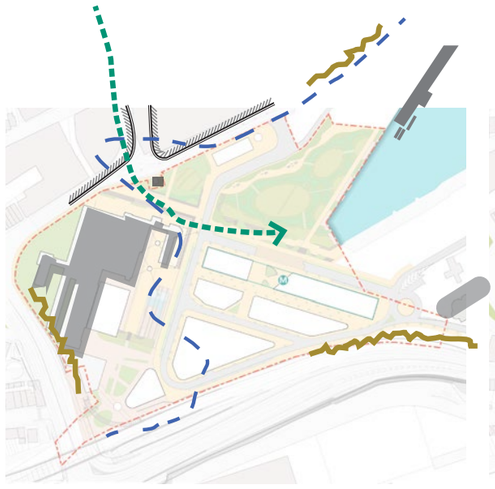
Consolidate open space as a large public waterfront park, centred on the Power Station, and visible from all parts of the site and surrounds to provide amenity, diversity, equality and ecology for the community framed by diverse built form character

Connect with and extend the green infrastructure of Rozelle Railyards



Celebrate Heritage Landmarks

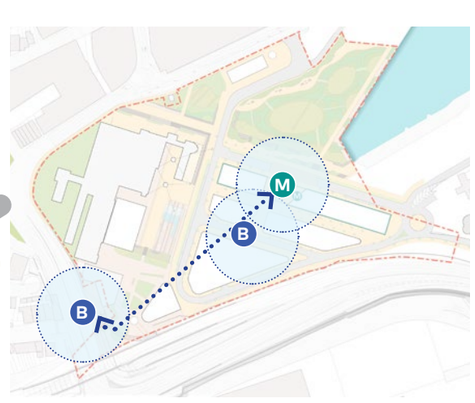
Respect the site's iconic heritage structures with proper curtilage in three-dimensions, considering shifting views and vistas from key movement networks



Reinforce a Layered and Evolving Heritage

Celebrate the natural heritage of the site and its surrounds including creeks, historic shorelines, sandstone cliffs, sewage pumping station and sawtooth roof warehouses

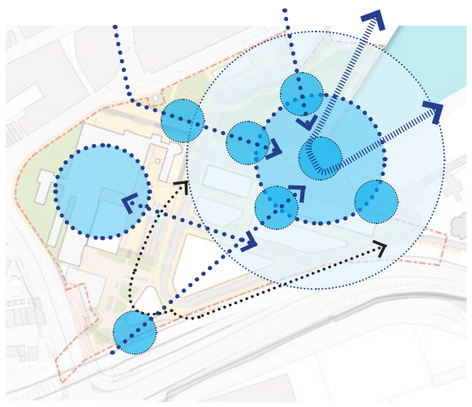
Incorporate and adaptively re-use heritage structures, and support the ongoing working culture of the port and community



Active Multi-modal Interchange

Interchange integrated with plaza to enable clear line of sight to and from metro with solar access and passive surveillance from day 1

Centre the design aspiration around human experience and journey as an exemplar of low car and high active and public transport mode share

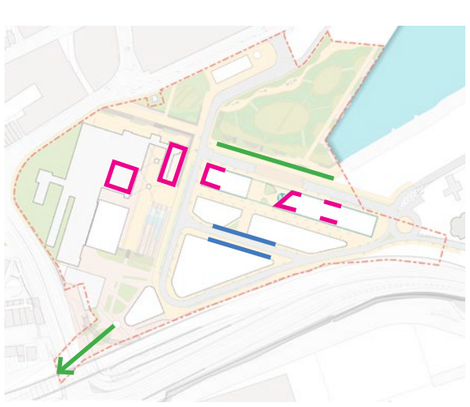


The Everyday and the Event

Ensure a variety of scales and spaces, with access and services to cater for mass celebration and everyday gathering

The delivery of the new centre will be supported by a broad range of uses which will support night time activation and could include food and beverage, cultural, community and other uses

The focus on employment uses within the Site will support the broader precinct's retention of ports and working harbour uses



Precinct-scale Activation from Day 1

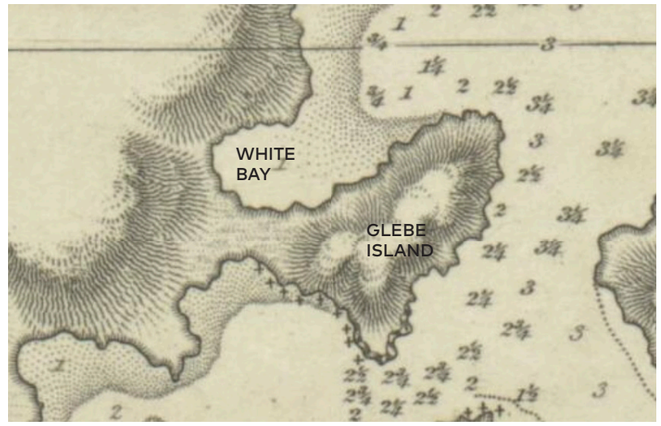
To leverage and support the new Metro Station infrastructure

Ensuring that there are a number of destinations, attractions and activations within the Site on Day 1 of the Metro opening, including employment spaces, parklands, food and beverage and community facilities.

4.4 Connecting with Country

4.4.1 Connecting with Country Themes

Figure 128: Connection to Country Themes - Zakpage



Detail from 1822 Sydney survey

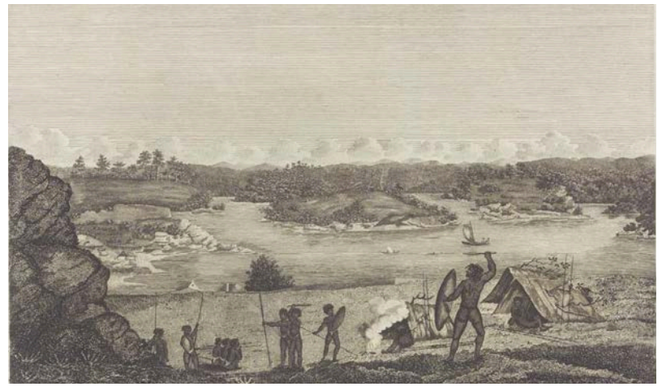


Figure 126: A native camp near Cockle Bay, New South Wales with a view of Parramatta River, taken from Dawes's Point [picture] / drawn by J. Eyre; engraved by P. Slaeger [sic], 30 November 1812 (nla.obj-135782267)

Figure 127: Blackwattle Swamp c1850s published in the Illustrated Sydney News, c1884

4.4.2 Connecting with Country Framework

4.4.2.1 Spatial Framework

The stretch of Wangal and Gadigal Country now known as Bays West has been known for millennia by the Wangal people as Saltwater Country and Freshwater Country.

This deep connection is explored through design that celebrates Sweetwater (inland sweet tasting water), Bitterwater or (sacred brackish fishing water typified by the ebb and flow of the tide, always changing) and Saltwater (the lagoons, bays, river mouths and out into the ocean).

The connection to Country strategy proposes to augment the former use of the site as a power station into a place of learning as a way of elevating knowledge as the power of the future. The precinct will be a combination of indoor, outdoor and undercover learning spaces that weave through heritage elements, new structures, a library (written word) and the parkland embedded with stories of water Country (songline). Just as this site mixes two types of water, the site mixes of two types of learning.

The sweetwater that comes from the creek and the rain will be collected in a series of pools across the site. It will dive in and out of the ground, much like the water spirits in ancient mythology. The ponds will clean the water that will create five islands across the site. The water will connect to the harbour in a series of nodes, which like the gills of a fish will filter it in a daily rhythm of tidal movements. This will nourish and increase the colonies of seahorses that will potentially live on the sea wall, which will also be interpreted with language revealed also with the tides.

Open-to-the-sky public open spaces and publicly accessible rooftops of new buildings will be publicly opportunities for sky country.

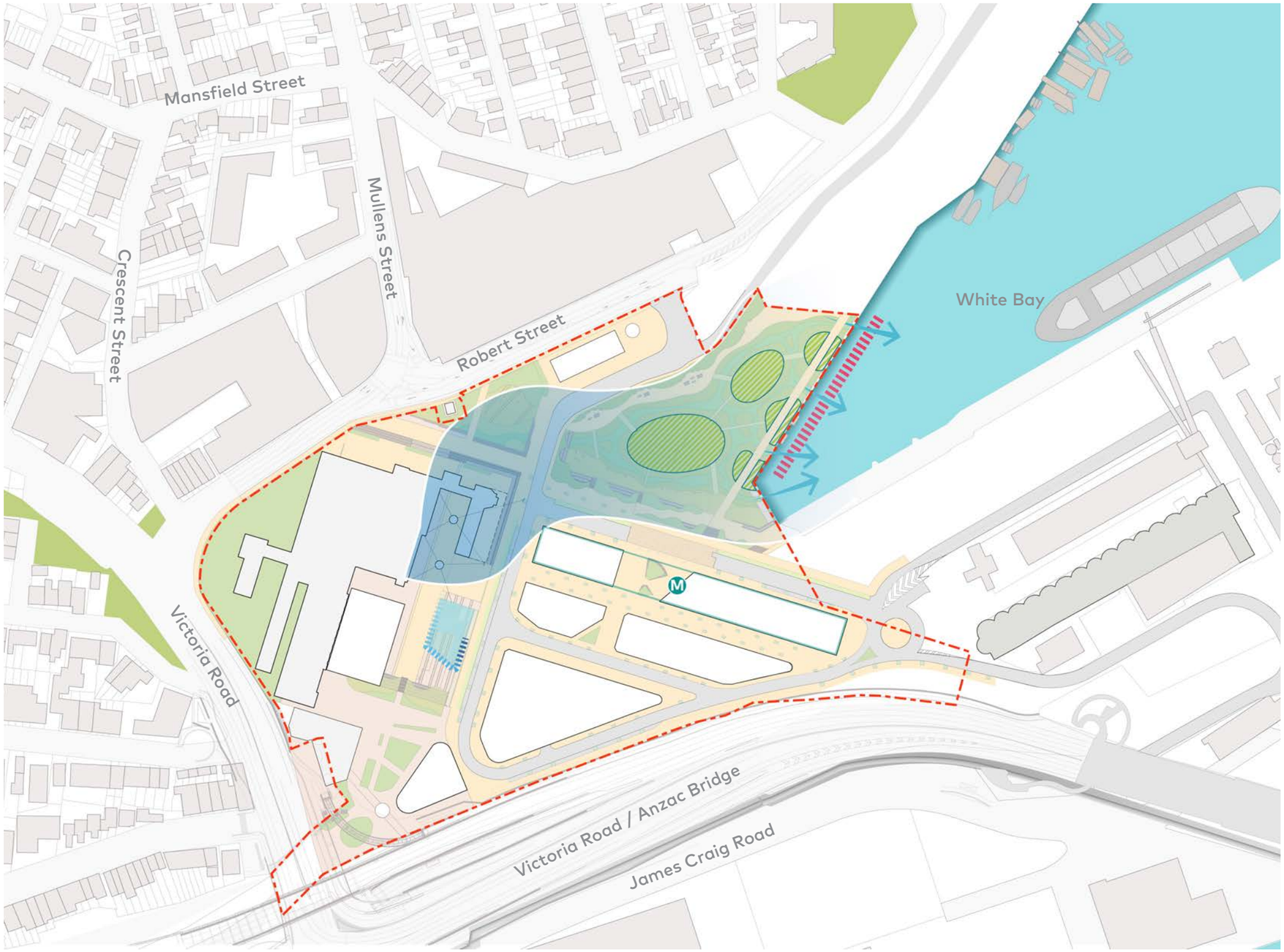


Figure 129: Connecting with Country Spatial Framework

4.4.3 Shorelines, Landforms and Sky

Figure 130: Painting of Pyrmont Point from Millers Point — with a green and treed Glebe Island in the middle distance.

An island that couldn't be circumnavigated.

The elevation and the easterly projection of Glebe Island into they bay gave an enhanced visual presence as an island, but boats were unable to sail around it. The collection of bays and inlets in Cockle Bay, to the south west of Millers Point and west of Darling Harbour, formed a significantly large waterbody unaffected by the currents of Parramatta River, and only fed by a number of small streams that gently eased in to the harbour across mangrove and oyster filled wetlands, swamps and shallows. At times of heavy rains these creeks and streams swelled and became torrents, depending on the size of their catchments and terrain.

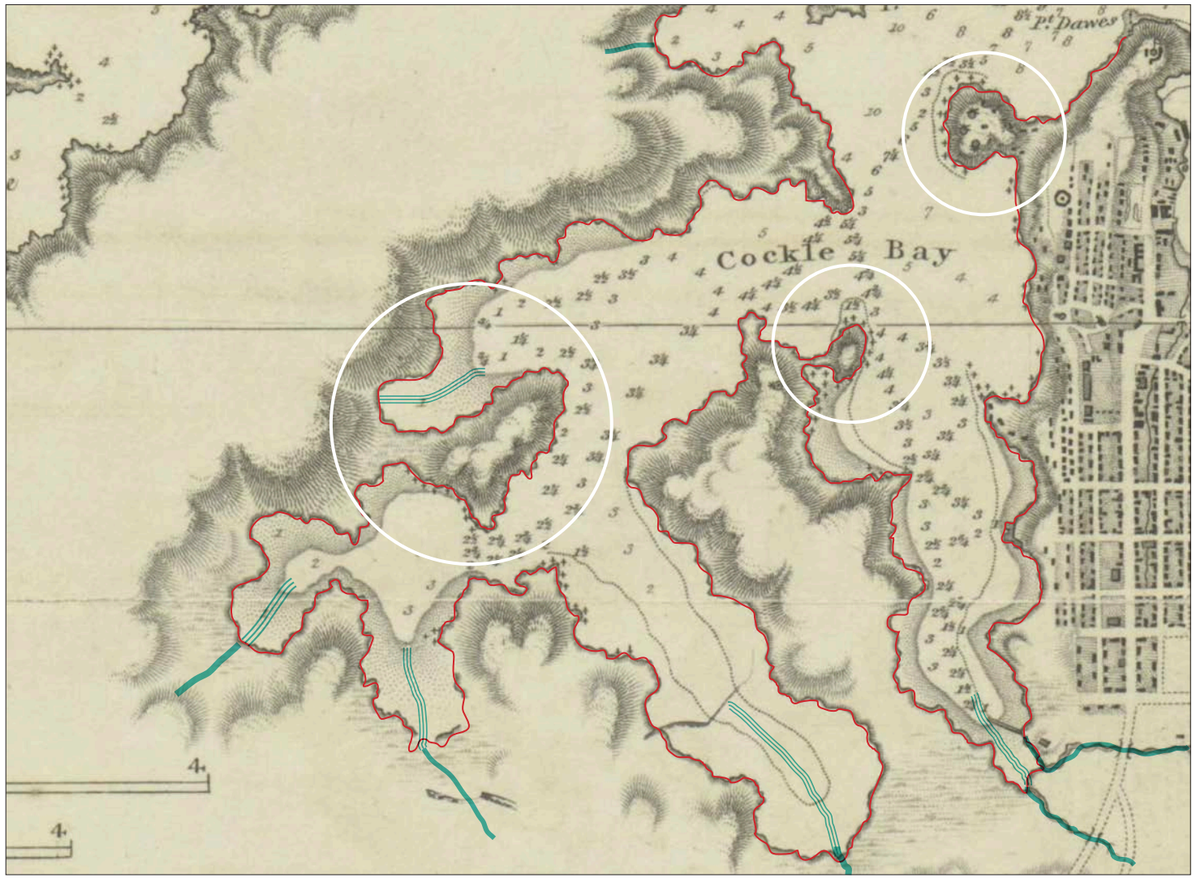


Figure 131: Survey of Port Jackson New South Wales 1822 By John Septimus Roe National Library of Australia [MAP RaA 5. Part 9] (in 'Charts of the coast of Australia', Phillip Parker King, London: Hydrographic Office, 1824–1826)

The White Bay site is unique in Sydney, distinguished by its incredible scale. The big sky meets the harbour with long views to the Anzac and Sydney Harbour Bridges. The cathedral scale of the power station sits at the confluence of land, water and sea. It is a place with rugged raw beauty and the openness of the sky above. A confluence of power and purpose — power of nature, power of industry and the community.

4.4.4. A Place of Water

A rich estuarine environment
shaped by water

The mudflats which filled the corner of the bay provided a rich estuarine environment, refreshed each day by the rising and falling tides, washed through by fresh water from the stream, becoming torrents in times of heavy rain. The mixing produced an ecologically rich place of mangroves, seagrass and saltmarsh.

Water and Energy

The energy of the site was felt through water, moving tides and the freshwater flowing to the sea. The movement of waters and tides was later used as an advantage in the cooling processes of the power station, drawing water from White Bay through to Rozelle Bay.

Radical change.

Before 1800 the harbour was edged by mix of rocky headlands, stone outcrops, sandy beaches, salt marshes and mangrove forests. These edges were often destroyed, filled in, rebuilt, walled or excavated. Construction of wharfs and sea walls greatly changed the mix of ecologies and habitats for plants, fish, crustaceans and fauna. Where there was once a rich and dynamic sea floor, the foreshore areas became degraded.

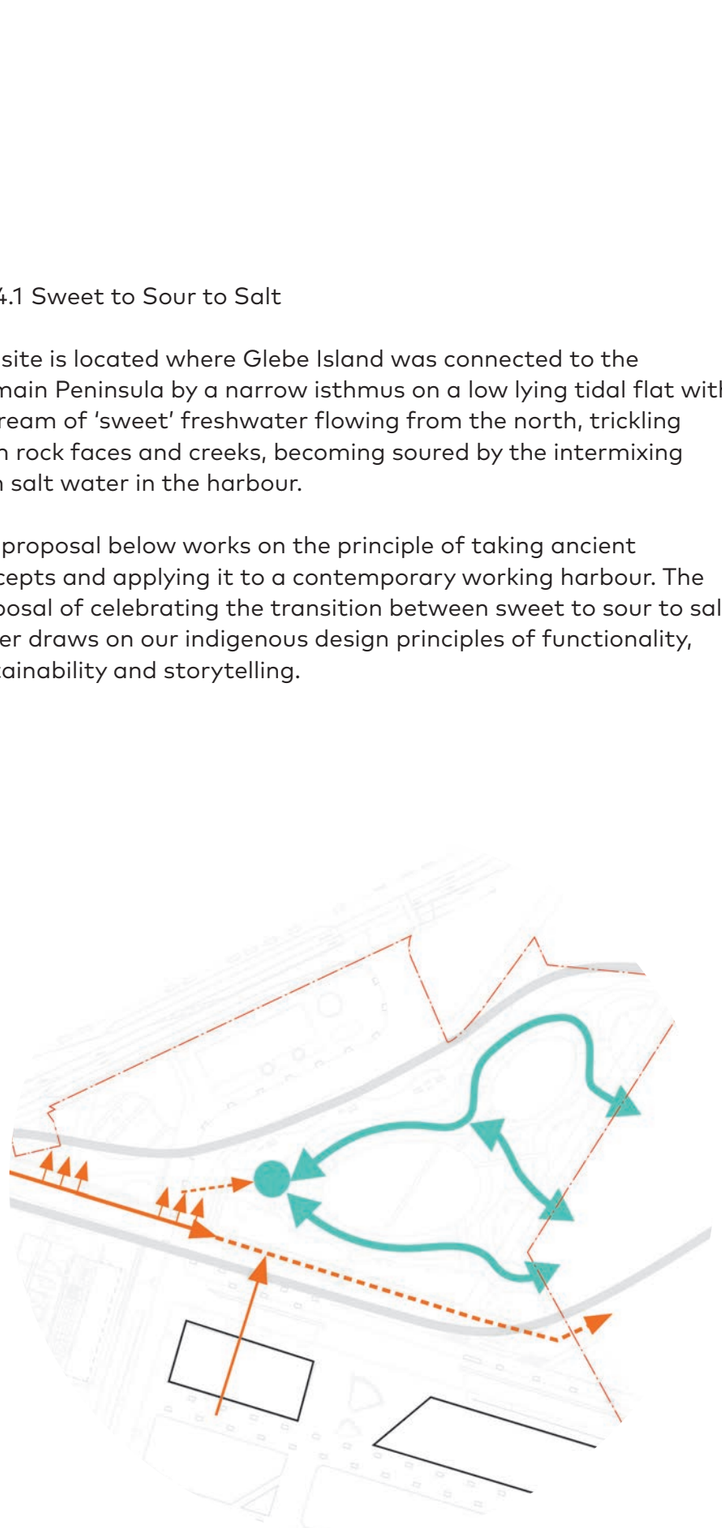
Figure 132: Stormwater Catchment Area (Source: Sydney Water)

Figure 133: Extract from 'A native camp near Cockle Bay' 1812

4.4.4.1 Sweet to Sour to Salt

The site is located where Glebe Island was connected to the Balmain Peninsula by a narrow isthmus on a low lying tidal flat with a stream of 'sweet' freshwater flowing from the north, trickling from rock faces and creeks, becoming soured by the intermixing with salt water in the harbour.

The proposal below works on the principle of taking ancient concepts and applying it to a contemporary working harbour. The proposal of celebrating the transition between sweet to sour to salt water draws on our indigenous design principles of functionality, sustainability and storytelling.



Fresh water enters from the catchment to the north

Sour water mixing of salt and fresh water in park

Salt water enters the parkland from the harbour tides

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4.5 Site Structure

The structure of the Site has been considered in response to its role at the heart of the wider Bays West Precinct. It considers the existing building fabric and natural elements and constructed landscapes of the Site's setting as well as the existing and future character of the adjoining communities.

The overall vision for the White Bay Power Station (and Metro) Sub-precinct is to deliver a publicly accessible edge to parts of White Bay, anchored by the Future Park. The waterfront will serve as a playground for the residents, a relaxation space for the workers, an educational space for the visitors and as a world-class waterfront address for the city of Sydney and the state of NSW. The creation of waterfront spaces will need to be balanced with ongoing ports and maritime uses. A balance will need to be achieved to ensure that enjoyment and functionality of water spaces is achieved for all.

The Site Structure is underpinned by the principle of delivering cohesive, connected and complementary Sub-precinct, whilst retaining a variety of uses and users, destinations and attractions, spaces and places.

Primary pedestrian desire lines are anchored by a variety of experiences as one moves through the Site. Educational spaces, active sports, restaurants and bars, interactive spaces, galleries, islands, sculptures, exhibitions, gardens, markets, promenades, wharves, culture and the contemporary.

The Site will embrace the existing heritage on the waterfront and the White Bay Power Station, gantries, rail lines and chimneys with adaptive new uses, weaving them in to the landscape, symbolic of the working nature of the harbour.

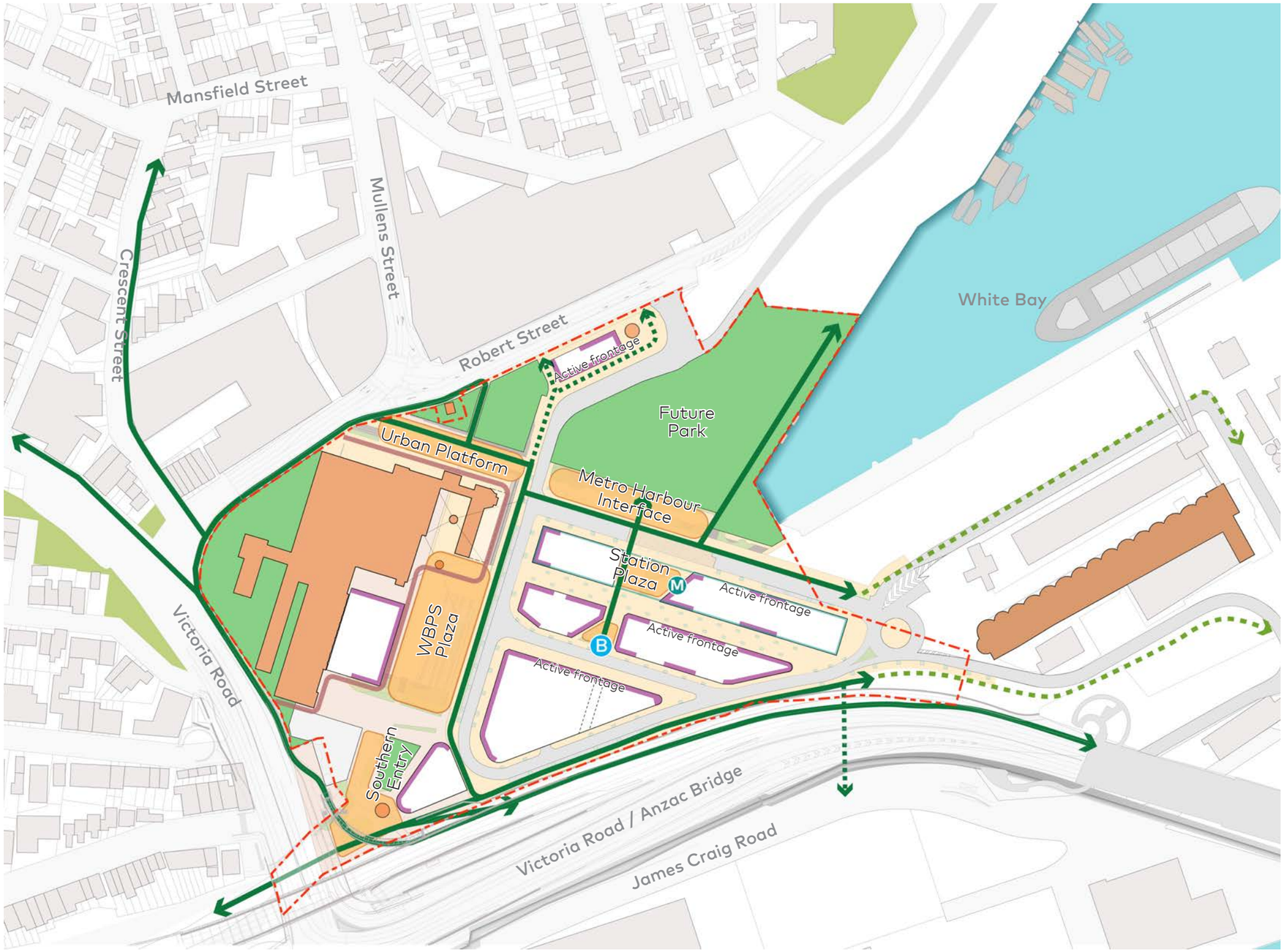


Figure 134: Site Structure Overview

4.6 Precinct DNA

Catchments and Confluence

The Site is located in a place of physical, environmental and social confluence, influenced by the surrounding immediate catchments, and larger district, metropolitan and harbour areas that form part of contiguous flows of water, energy, people, activity and movement.

Physical catchment

The physical water catchment that the site sits within is relatively small but has intense periods of run off which creates periods of flood surges of low lying areas before it enters the bay. There is an opportunity for this site to contribute to moderate flooding reduction and improve water infiltration to natural soil.

Social catchment

For many decades the site was and is inaccessible and isolated from the surrounding urban areas due to its industrial/working harbour use.

The addition of a Metro Station within the precinct will greatly increase the community catchment of people across the metropolitan area to access the site.

This new urban precinct with the White Bay Power Station and waterfront park will be approximately 5 minutes from the CBD and approximately 15 minutes from Parramatta by Metro train. This will significantly enhance its capacity as a metropolitan and potentially national destination.

Innovation catchment

The Site is also located within an innovation corridor (Figure 135) that extends from Tech Central to the south through to Bays West anchored by Pyrmont-Ultimo. The proximity and concentration of innovation and knowledge jobs will help attract business to locate within the Site.

Figure 135: Land uses in Bays West. Bays West Place Strategy Nov. 2021. Courtesy of Terroir and collaborators.

4.0 Urban Design Framework

4.7 Heritage

Considerations

- The working harbour relationships of White Bay Power Station and Robert Street warehouses are key anchors to the precincts working harbour character.
- Retention of viewsheds within the Site
- Retention of existing heritage fabric including:
  - White Bay Power Station
  - Historic Sewer Pump Station
  - Western Curtilage that includes the substation yard, control room and formal entry
  - Rail lines
  - Cooling system (penstocks and harbour intake)
  - 1930s harbour edge.
  - Raised levels of coal loading platform.
- The potential to deliver a new building within the historic footprint and building envelope of the old boiler house building in accordance with the Conservation Management Plan for WBPS

Requirements

- The park and low scaled pavilion building on Robert Street maintains and enhances its working harbour character and visual relationship to White Bay.
- Integration of existing White Bay Power Station fabric into the new public domain works.
- Celebration of penstocks in key open spaces at southern entry and Robert Street.
- Marking of lost fabric representing layers of time including:
  - Interpretation of Coal Loader No.2 footprint integrating former harbour shoreline and wetland.
  - Rail lines and freight infrastructure.
  - New Western gardens incorporating Substation Yard and control room and entrance from Victoria Road.

Figure 137: Birds eye view of general wharfage scheme west of Dawes Point as it will appear when completed, published 1913 By Sydney Harbour Trust W E Adams H D Walsh Contributed By National Library of Australia [MAP RM 2757] (Published by the Sydney Harbour Trust Commissioners, 1913)

Figure 136: Heritage Considerations

Heritage Viewsheds

The key heritage viewsheds to and from the White Bay Power Station are to be retained where possible. The views and requirements are;

- Mullens Street View - Any built form and landscape interventions in this viewshed must consider the strength of White Bay Power Station industrial facade and energy generation process from coal to electricity
- Harbour views - The chimneys are a silhouette landmark from afar and must be protected as a visual connection to the Site from the Harbour Bridge and Observatory Hill
- Anzac Bridge - White Bay Power Station is a long-time landmark industrial building viewed in combination with the silos. This is a changing view as one moves along Anzac bridge and any built form that encroaches on this view must consider the significance of the view and the cumulative impact upon the changing nature of the view.
- Glebe Point Road - this view is already impacted by the existing boat sheds in Rozelle Bay, however, any additional built form impacts should consider that the chimneys should still be visible (see Figure 138)
- Johnston Street - The view of the chimneys from Johnston Street and coal loader should not be impacted
- Victoria Road - a gateway view with a sense of layer with stepping rooflines and parapets which should not be impacted

Figure 139: View of White Bay Power Station from Glebe Point Road that is obscured by the Sydney Boathouse Building

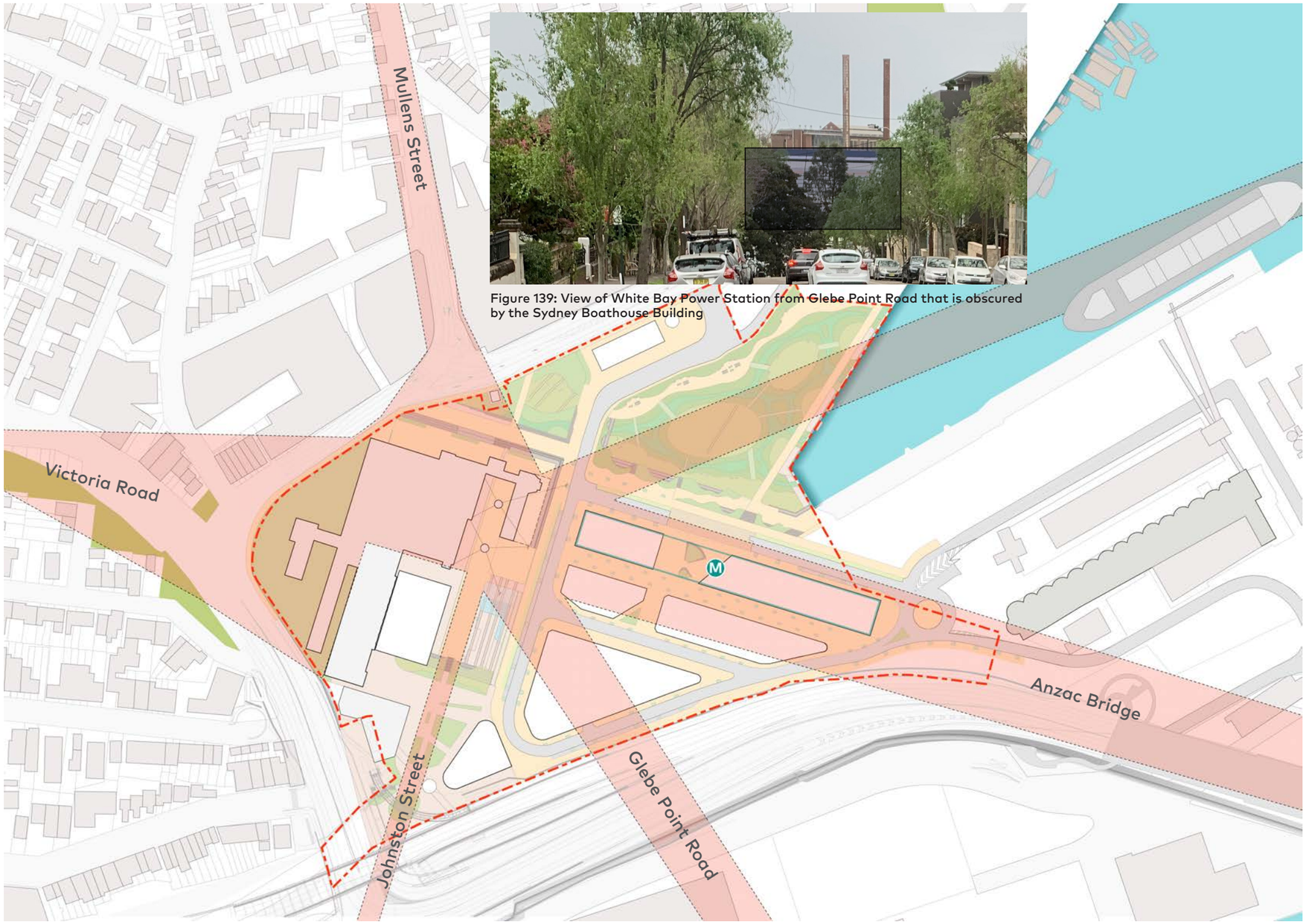
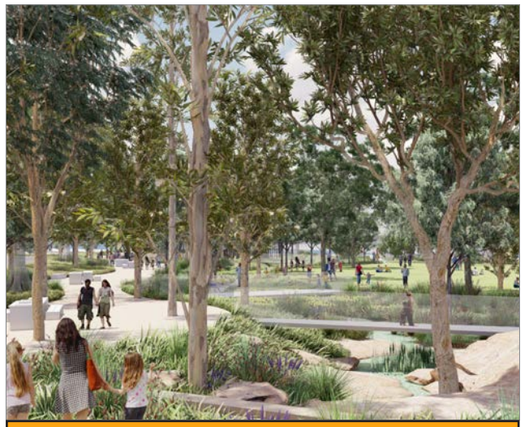


Figure 138: Scenic Landscape

4.8 Public Space Typologies & Metrics



PUBLIC DOMAIN TYPE 1

Public Open Space

Dedicated public spaces including parks, green spaces and playgrounds, that are accessible 24 hours a day.

PUBLIC DOMAIN TYPE 2

Public Open Space WBPS Heritage

Publicly accessible industrial spaces around the White Bay Power Station including footpaths, building curtilage and pedestrian links that are contiguous to the network of promenades, streets and public spaces.

PUBLIC DOMAIN TYPE 3

Public Open Space Other

Publicly accessible spaces including squares and promenades, walkways etc that connect to the broader network of streets and spaces.

PUBLIC DOMAIN TYPE 4

Public Open Space Footpaths

Public footpaths, building curtilage and pedestrian links.

PUBLIC DOMAIN TYPE 5

Public Shared Zone

Trafficable streets and lanes with a slow speed, flush kerb environment making it comfortable for pedestrians and cyclists to travel through.

PUBLIC DOMAIN TYPE 6

Public Vehicle Zone

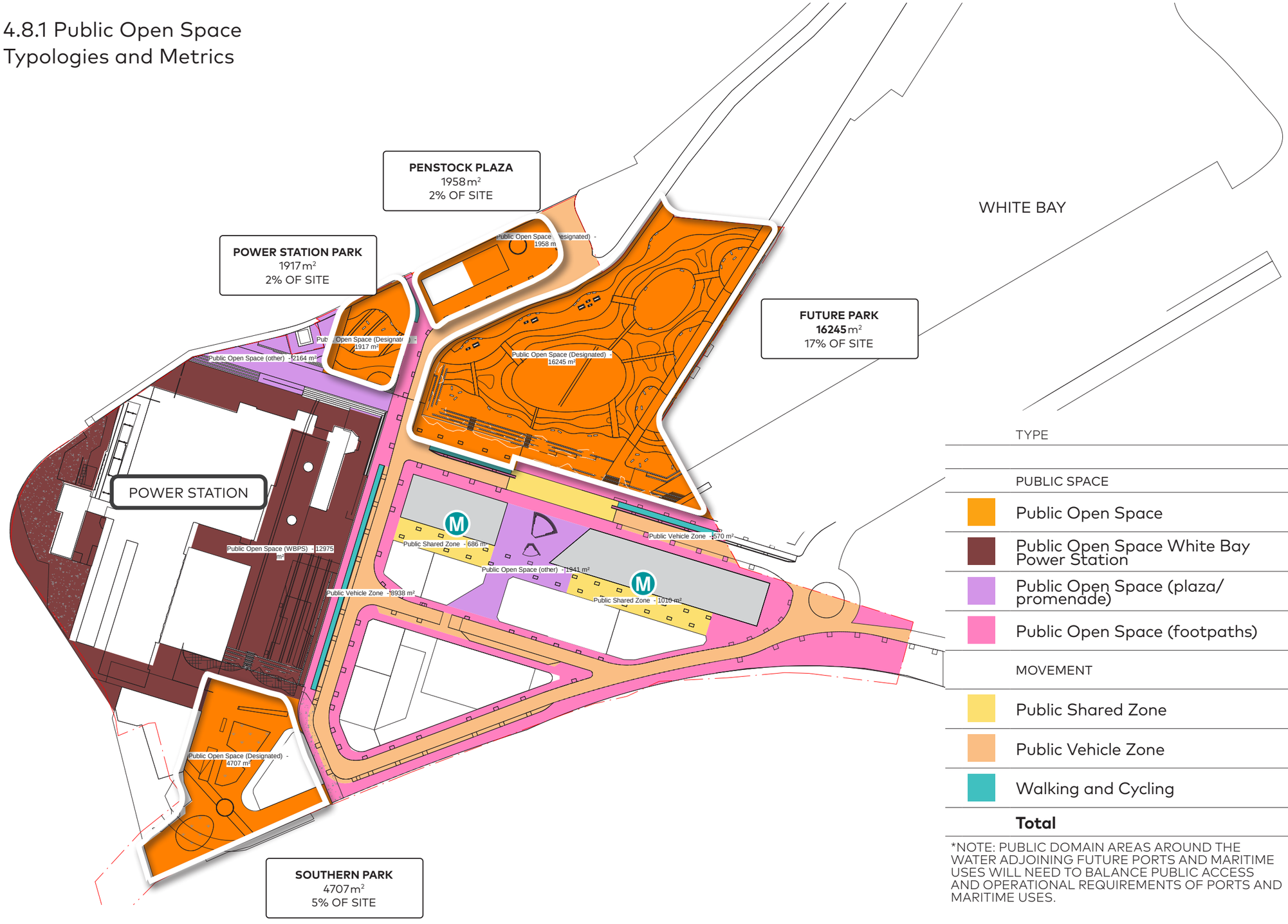
Two way streets and roads that form the primary vehicle circulation and connection to local streets and the arterial road network.

PUBLIC DOMAIN TYPE 7

Walking and Cycling

Separated bicycle lanes located along public streets within the precinct.

4.8.1 Public Open Space Typologies and Metrics

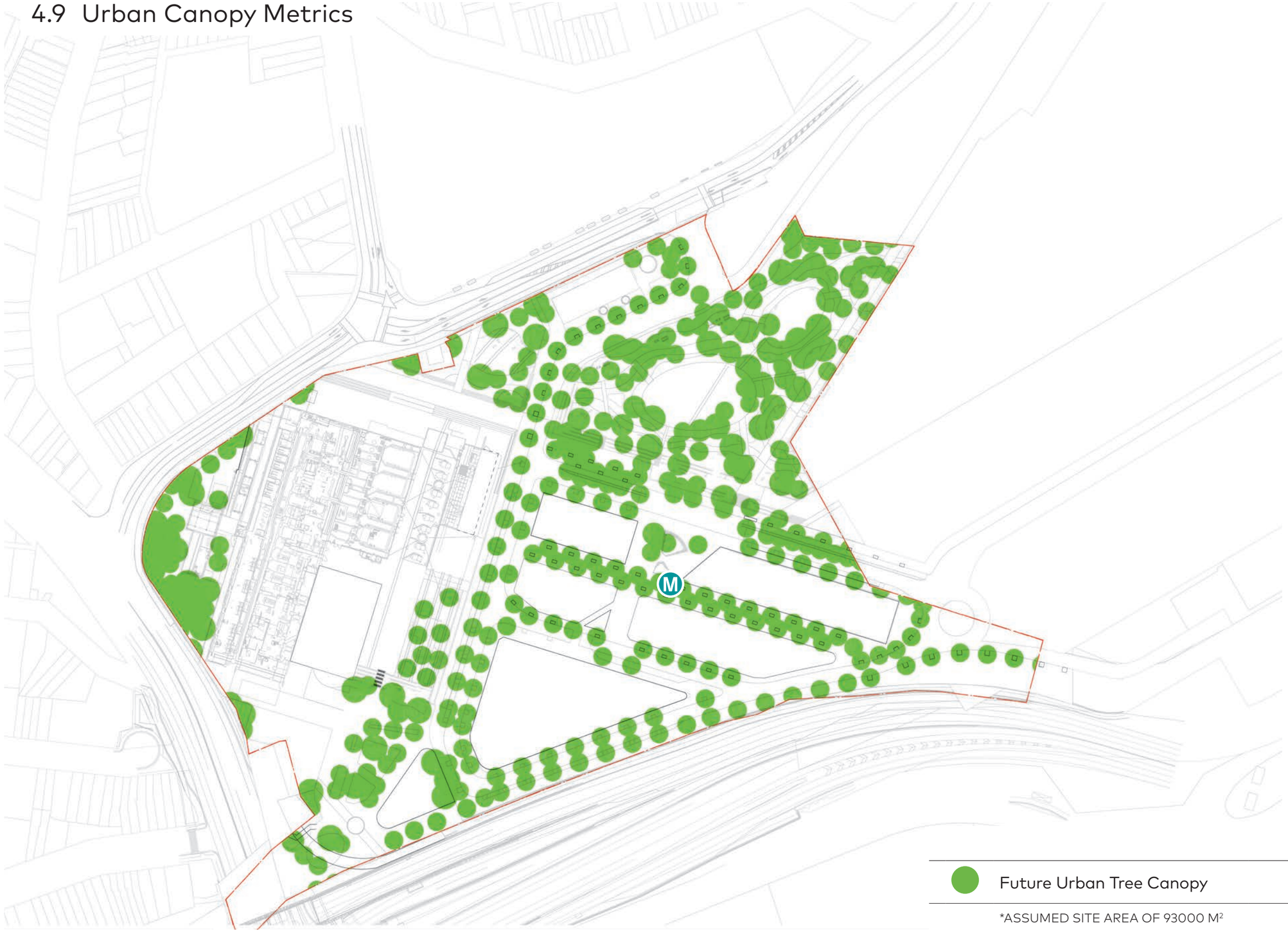


	TYPE	M²	% SITE*	SUBTOTAL	% SITE*
	PUBLIC SPACE				
	Public Open Space	24828	26.7%	**51862**	**55.8 %**
	Public Open Space White Bay Power Station	12975	14%		
	Public Open Space (plaza/ promenade)	4106	4.4%		
	Public Open Space (footpaths)	9953	10.7%		
	MOVEMENT				
	Public Shared Zone	2375	2.6%	**12646**	**13.6 %**
	Public Vehicle Zone	9508	10.2%		
	Walking and Cycling	763	0.8%		
	Total			**64508**	**69.4 %**

*NOTE: PUBLIC DOMAIN AREAS AROUND THE WATER ADJOINING FUTURE PORTS AND MARITIME USES WILL NEED TO BALANCE PUBLIC ACCESS AND OPERATIONAL REQUIREMENTS OF PORTS AND MARITIME USES.

*ASSUMED SITE AREA OF 93000M²

4.9 Urban Canopy Metrics



		M²	% SITE*
	Future Urban Tree Canopy	**28157**	**30.2 %**

*ASSUMED SITE AREA OF 93000 M²

* INDICATIVE AREAS ONLY SUBJECT TO FURTHER INVESTIGATION

4.10 Permeable Surfaces

	M²	% SITE*
Permeable Surfaces	22090	24.0%

*ASSUMED SITE AREA OF 93000M²

* INDICATIVE AREAS ONLY SUBJECT TO FURTHER INVESTIGATION

4.11 Ecological Opportunities

4.11.1 Ecology Framework

The study area and subsequent Master Plan allows for numerous opportunities to increase biodiversity within the study area. These requirements include:

- Use of native species in landscaping to reflect communities that may have existed prior to clearing
- Use of stormwater to provide a freshwater environment which could be used by microbats for foraging
- Creation of interpreted aquatic habitats to include bioretention / water quality improvements for overland flow from the land to marine environments
- Allowing for an interpreted shoreline and using plants consistent with estuarine saltmarsh which could allow for tidal movements onto the land and considers future climate / sea level rise
- Provision of augmented fauna habitats such as:
  - consideration of microbat chambers in buildings
  - design and deployment of 'seahorse hotels' in the marine environment
  - design and use of marine tiles to encourage marine plants and macroalgae to colonise and grow along the edge of the sub-tidal marine environment
- Provision of dense planting of urban canopy to connect learning environments and provide a level of habitat connectivity where this is currently absent.

4.11.2 Ecology and Country

Implementation of the Connecting with Country framework aligns with potential biodiversity outcomes of the proposed Master Plan.

The connections include:

- Telling the story of freshwater as it travels across the site
- Telling the story of sour water where saltwater meets fresh
- Telling the story of salt water at the edge of the study area.

These requirements include:

- Use of native species in the proposed landscaping further reinforces Connecting with Country and opens opportunities to share knowledge of Country.
- Linking land and the marine environments is consistent with the creation of a blue / green network.

4.11.3 Open Space, Landscape and Ecology

Considerations

- Habitat of local endemic species including microbats and seahorses.
- Poor quality of local run off water into harbour.
- Poor existing urban conditions; lack of trees and green cover and a high level of local heat island impacts.
- Open space deficiency in local area and connection to the west to the Rozelle Parklands under construction.

Requirements

- Integration of a large public park with a strong Connection with Country integration, regional playground, green spaces, passive open space environmental habitat and amenities.
- Provision of a large, public, waterfront park approximately 1.8 Ha in size.
- Provision of an urban tree canopy that shades 30% of the total site, primarily comprised of local and endemic species maximising habitat whilst providing amenity and shelter for the community.
- Provision of a southern park and plaza arrival space that links under Victoria Road through to Rozelle Parklands.

Figure 140: Ecological Opportunities

4.0 Urban Design Framework

4.12 Public Art and Interpretation

Drawn from the Bays West Place Strategy the following are considerations and opportunities for Public Art.

Considerations

Embed interpretation and public art in the public domain and built form which will reveal the layers of history in a coordinated way. Express existing and former elements, sub-surface elements and other tangible traces of the past within the precinct structures.

Deliver a site that integrates, interprets and conserves the wider site heritage elements into a cohesive story that can be understood by future users. Use digital platforms, integrated signage, artwork and remnant artefacts to illustrate the stories across the site.

Creative culture creates richness, interest, vibrancy and identity in place. Build upon the Indigenous culture of the place, combined with its industrial and maritime history, and create places to enact culture as part of an evolving identity for the precinct.

Requirements

- That a public art and interpretation strategy be prepared to inform any phases of design beyond rezoning.
- That a suite of devices are explored that may include, but not be limited to:
  - Branding and language - drawing on Country wherever possible
  - Public Art/Sculptures/Murals - adaptive reuse of "kit" from inside the White Bay Power Station, the rail tracks that traverse the Site, sculptures that are interactive including Connection to Country, water play and working harbour, murals that cover blank façades of buildings including White Bay Power Station, the intake substation and Metro services buildings. Public art opportunities particularly in relation to the intake substation and metro service buildings are subject to detailed design
  - Architectural and Landscape Lighting - both for safety and surveillance but also event and programme oriented
  - Interpretation embedded in Landscape - to interpret the historic shoreline of Glebe Island and the Balmain Peninsula, to interpret the location of the coal loader wash plant,
  (including White Bay Power Station coolant water channels and power reticulation), former buildings/ transport corridors and former shorelines have been integrated into overall structures
- Ensure the quality of interpretation that responses to Country and Post-colonial Era elements
- Ensure clarity of interpretation in delivering a cohesive story
- Deliver interpretation of remnant elements, new public domain and new art proposals and ensure they have been integrated within the proposal
- Integrate permanent art elements temporary art installations
- Allow for spaces that cultural expression can be practiced and performed
- Create spaces that enable teaching and sharing of Indigenous cultural practices – particularly in regard to holistic restorative sustainability
- Restoring the turpentine piles on the White Bay foreshore
- Interpreting the large gantry cranes that are used to load and unload the ships at White Bay as a sculptural element and a viewing platform

Local artworks and installations from Inner West and City of Sydney Councils

4.13 Flooding

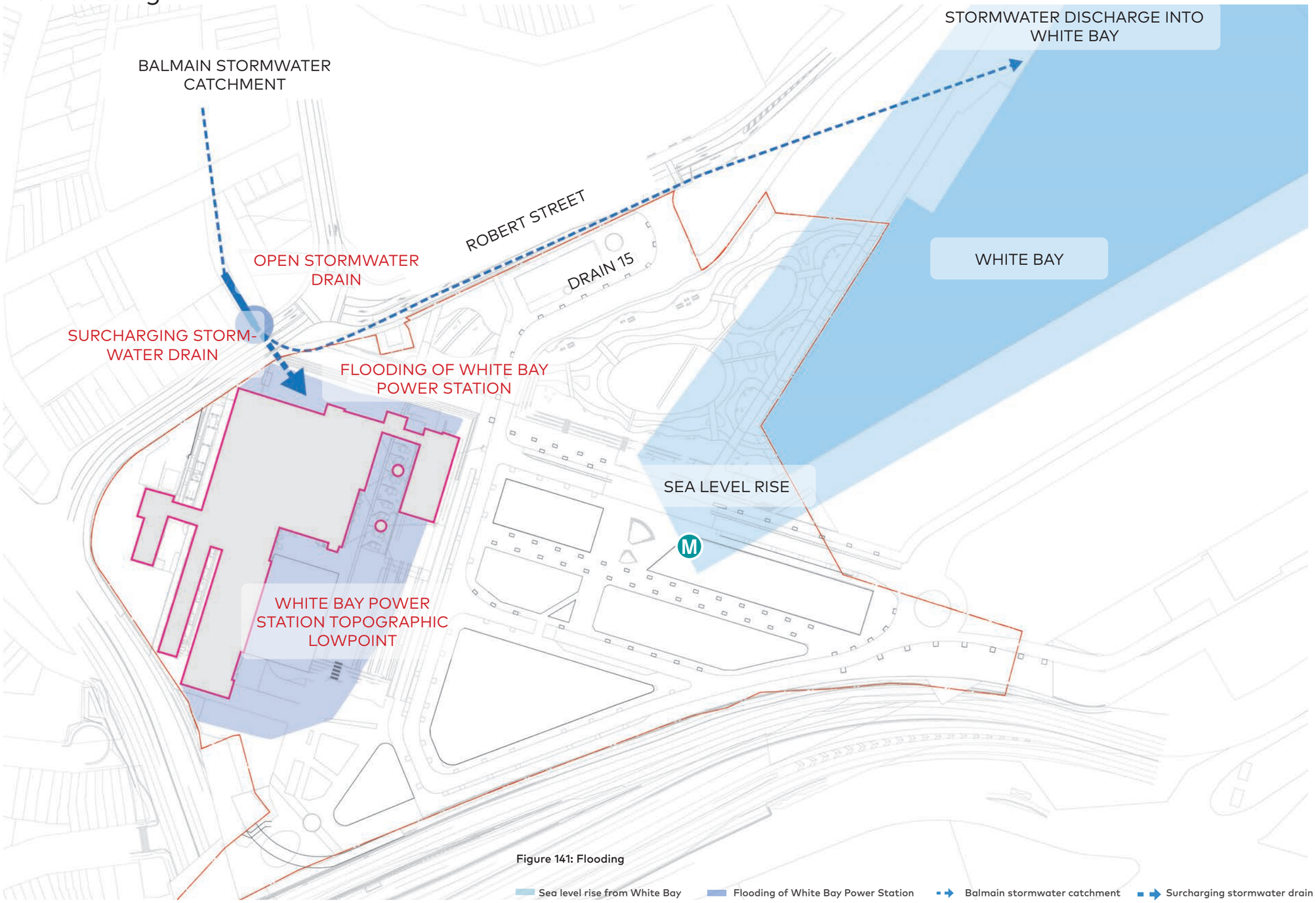


Figure 141: Flooding

4.13.1 Flooding and Water

Considerations

- The site is impacted significant flooding particularly during storm events particularly surcharge from Canal No.15. The floodpath of the surcharge runs along the northern curtilage of the White Bay Power Station.

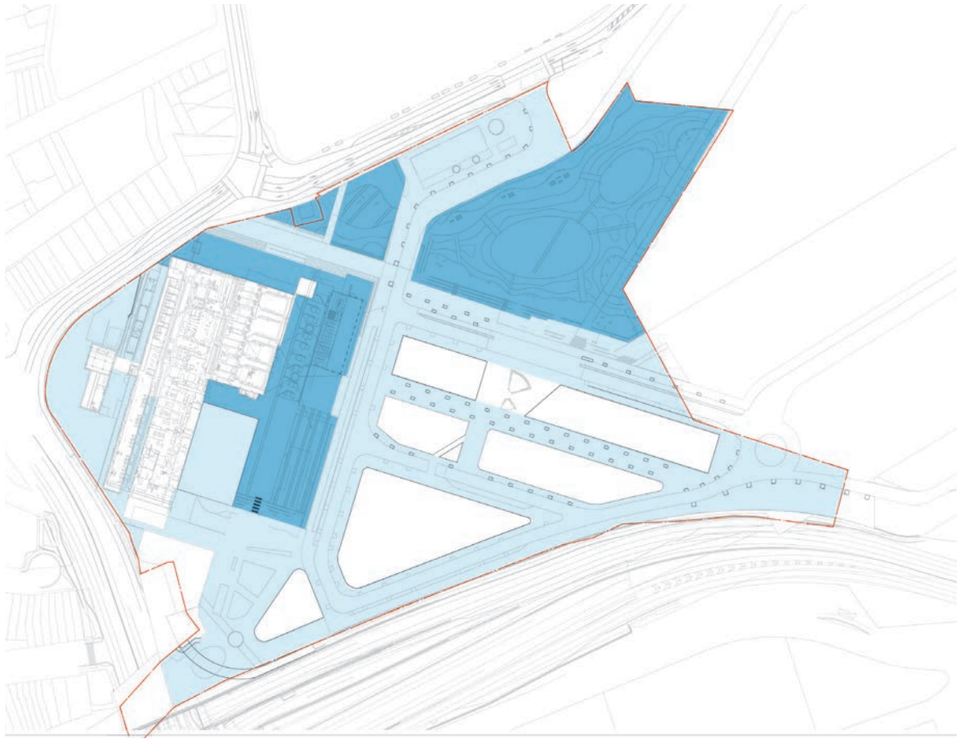
- Tidal water movements in harbour.

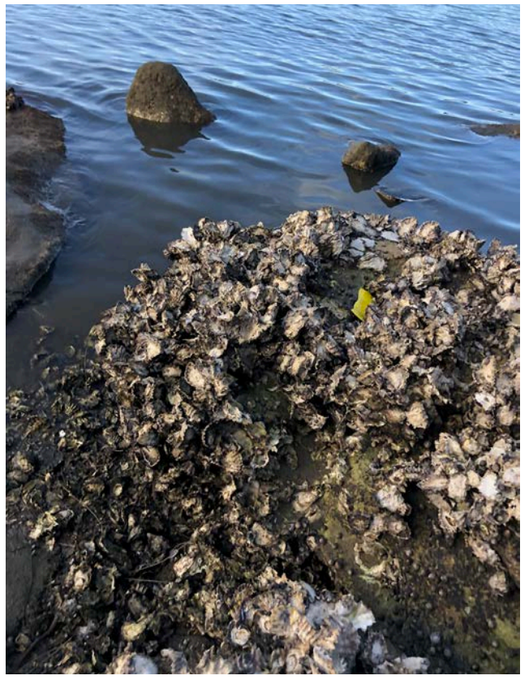
Requirements

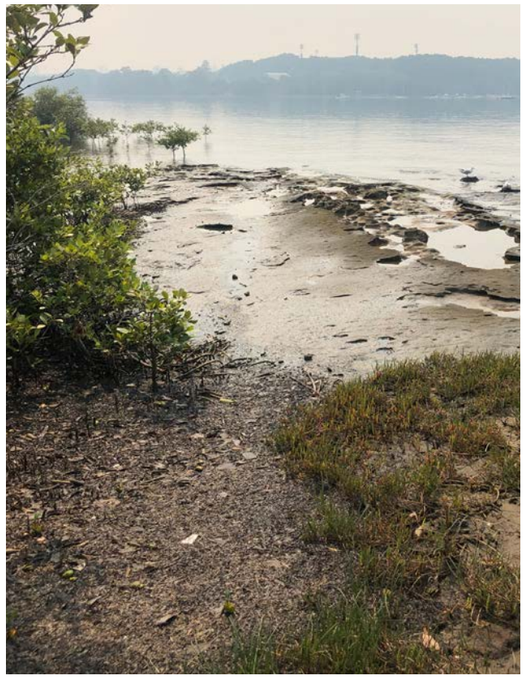
- Flood protection at RL 3.7 is required to protect the White Bay Power Station at RL 2.2

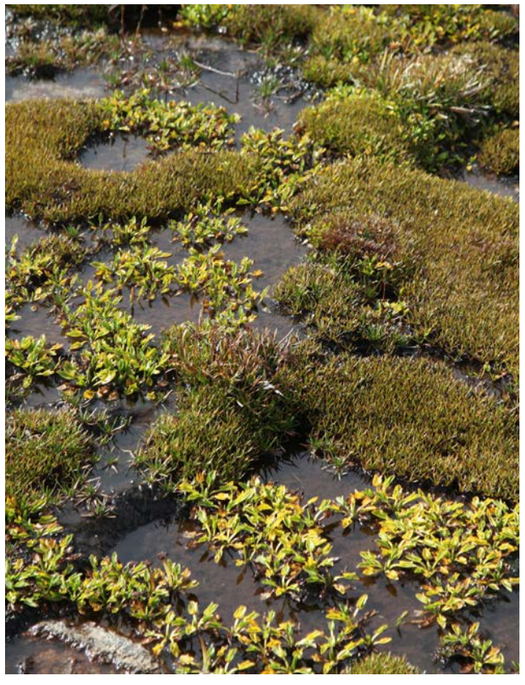
- An urban platform integrates flood protection and defines the northern curtilage of the power station and street address to Robert Street.

- General overland flows are directed through bioretention zones and tidal 'flowlines' through the harbourside park into the bay creating a living and 'breathing' interchange between land and sea.









4.13.2 New Site Levels

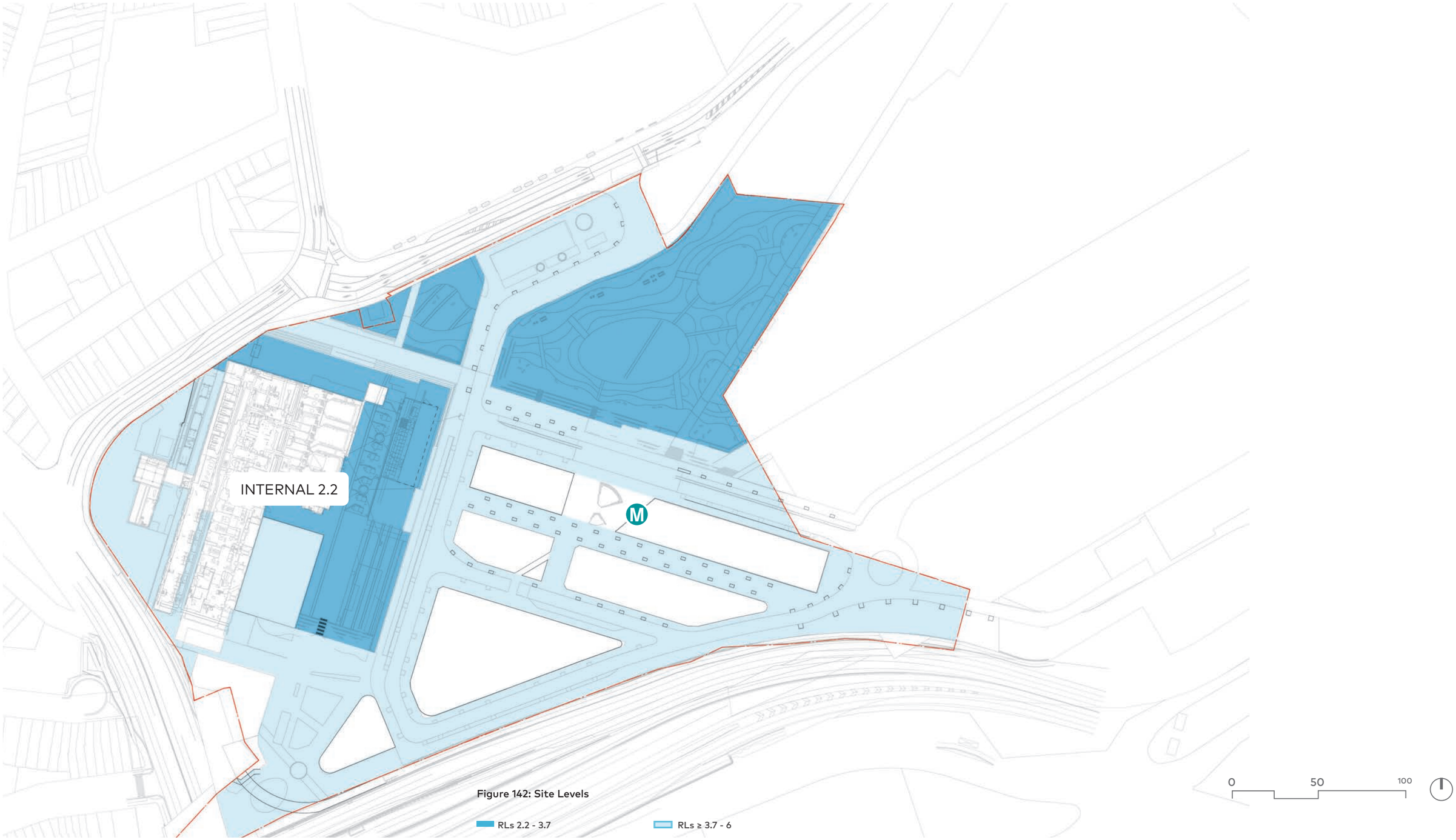


Figure 142: Site Levels

4.13.3 Fresh - Sour - Salt Water

Figure 143: Freshwater to Saltwater

4.14 Amenity

4.14.1 Solar Access

Considerations

- To ensure that the primary public open spaces are amenable year round to cater for the variety of needs of workers, visitors and residents of the Site

Requirements

- To ensure that overshadowing of the primary open space from new and existing built form does not result in diminished enjoyment or activation of these spaces to gather and dwell
- The minimum proportions of the public plaza spaces that are to achieve a minimum 2 hours of sunlight between 9am and 3pm on the winter solstice (June 21) are:
  - Metro Station Plaza 100%
  - White Bay Power Station Plaza 60%
  - Southern Entry Plaza 100%
- The minimum proportions of the public park space that are to achieve a minimum 4 hours of sunlight between 9am and 3pm on the winter solstice (June 21) are:
  - Future Park 95%

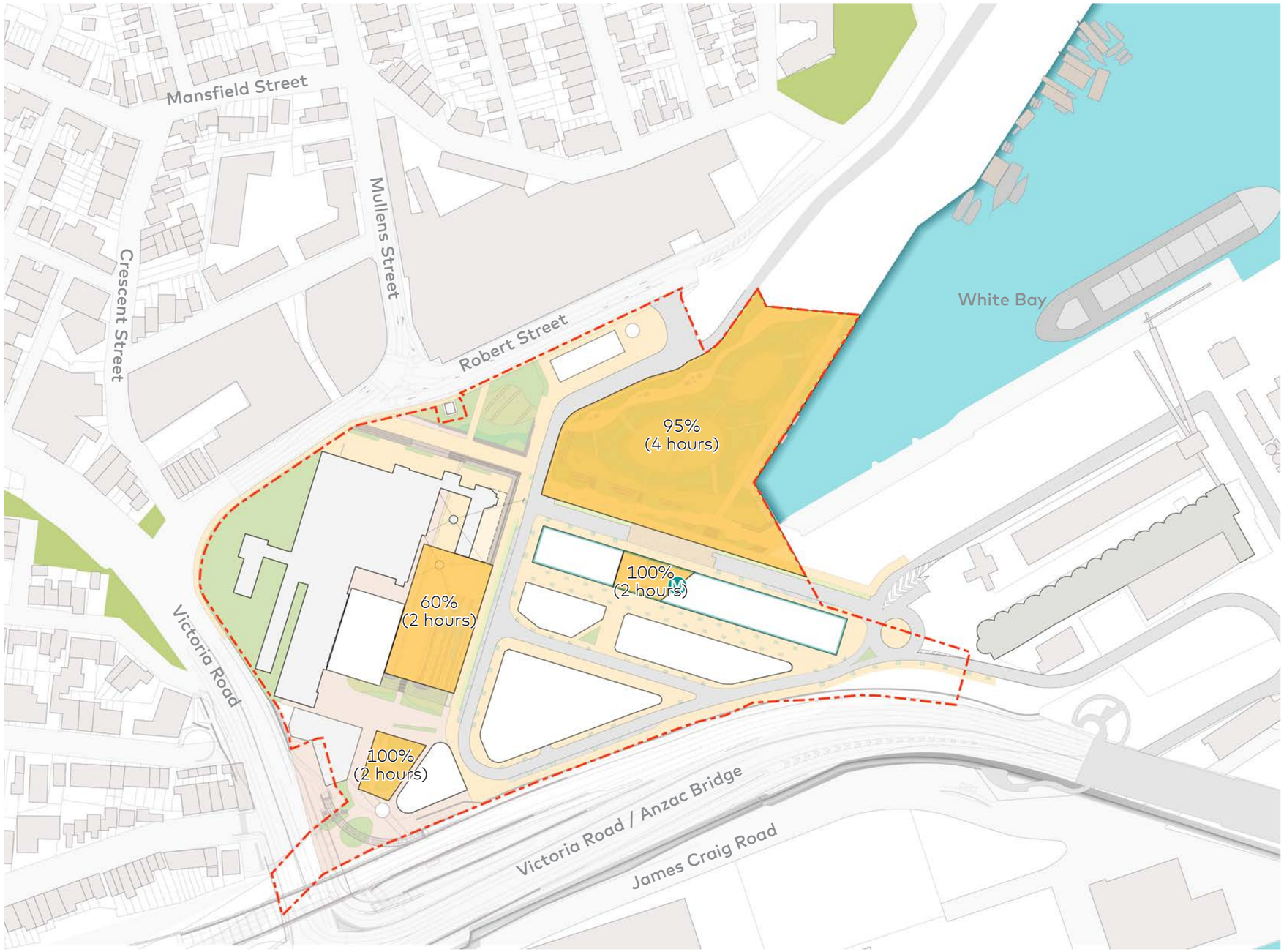


Figure 144: Solar Access

4.14.2 Wind and Weather Protection

Considerations

- To ensure that desire lines, footpaths, building entries and exits and gathering spaces are protected from the wind and weather

Requirements

- All interfaces on the diagram adjacent are to provide for a minimum 3m wide awning in addition to any recessed entries or colonnades
- The Metro Station entry already incorporates appropriate weather protection
- Built form is arranged in a way that helps deflect prevailing winds to ensure public spaces are amendable to walking and gathering.
- The development opportunities are proposed to have a 0m setback and that pedestrian amenity and weather protection is provided in the building height strategy and awnings over the public domain.

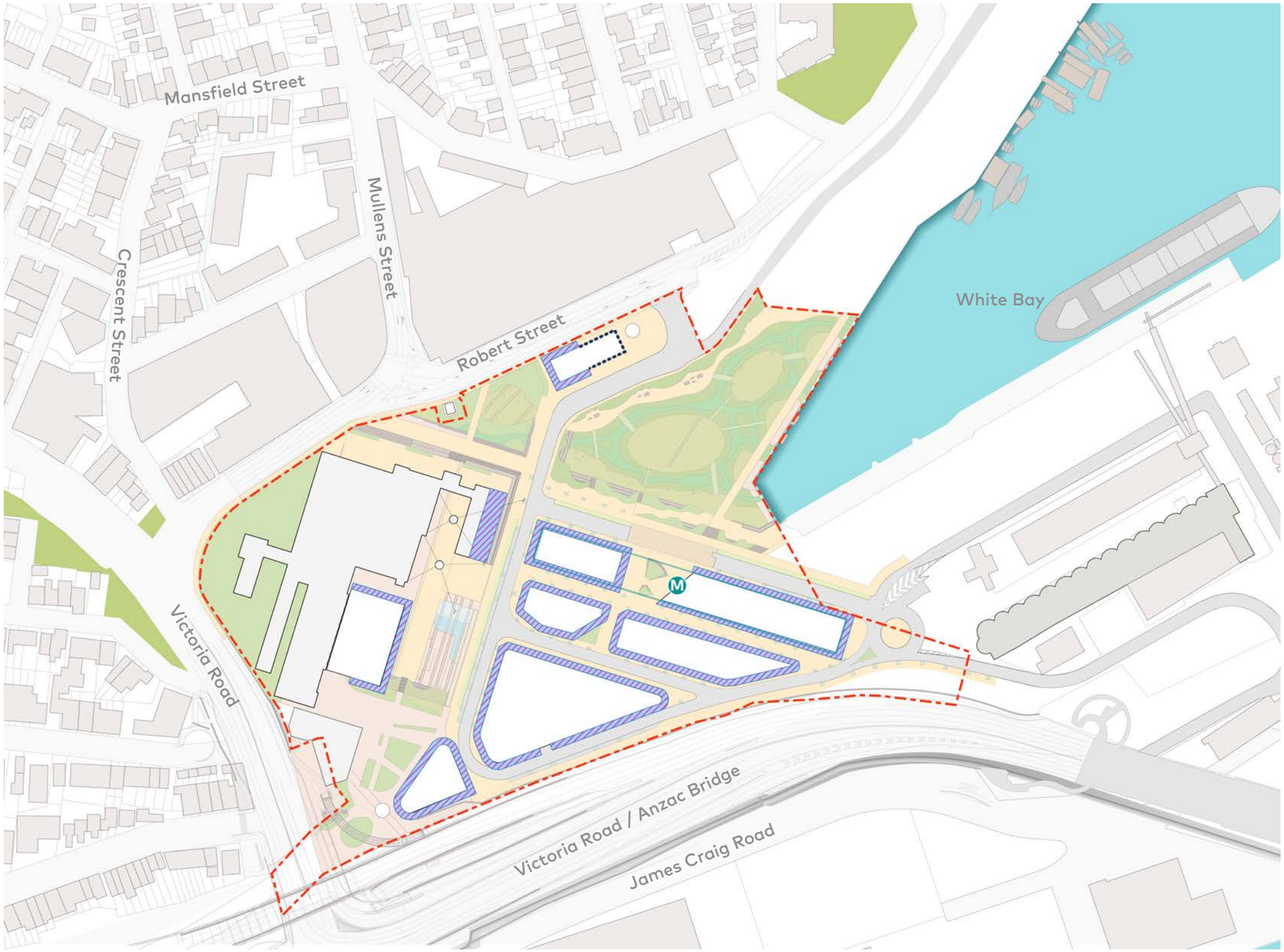


Figure 145: Wind and Weather Protection

4.15 Culture and Community

Social Infrastructure Provision

Given the levels of regional accessibility, the mix of proposed uses and Government ownership, the Site affords an opportunity to provide a comprehensive ecosystem of social and community infrastructure to meet, not just the needs of the existing community, but the needs of the workers, students, residents and visitors to the Site in the future.

The social infrastructure proposed to be located within the Site are:

- District level multi-purpose community and library hub
- Cultural and community spaces such as creative industry spaces, theatre spaces and flexible event spaces
- A minimum 2 Hectares of public open space including; a district-level foreshore park of at least 1.5 hectares; hard and soft surfaces; passive and active recreation spaces; day and night spaces; communal gathering spaces; spaces for lunch; outdoor learning pods; and outdoor work stations
- 1 District level play space
- Active recreation;
  - Indoor sports centre
  - 1 outdoor fitness station
  - 1 skate friendly area

Figure 146: Leagues Club Park, Gosford. Turf Design Studio.

Figure 147: Leagues Club Park, Gosford. Turf Design Studio.

Figure 148: Leagues Club Park, Gosford. Turf Design Studio.

4.16 Precinct Activation

The diagram adjacent suggests an indicative variety of destinations and attractions that can facilitate precinct activation in the early phases of redevelopment when The Bays station is open, but the remainder of the precinct is not fully developed.

These include;

- The Bays station entry and plaza
- Building entries for the commercial over-station development
- The coal loader building and reinstated awning that may include covered outdoor gathering spaces, precinct wayfinding, food and beverage and/or bike store/workshop
- A proportion of the waterfront park

Figure 149: Precinct Activation

4.17 Connectivity

4.17.1 Street Hierarchy

The UDF ensures ongoing flexibility for the precinct by allowing all main streets and local streets to cater for a variety of vehicles, including light vehicles, vans, buses, coaches and heavy vehicles. However, there is a strong focus on prioritising walking, cycling and public transport within the Site.

The proposed street hierarchy has considered the need for local traffic to access the Site, whilst also managing vehicle access to the White Bay Cruise Terminal (WBCT). Vehicles accessing the WBCT include private passenger vehicles, ride share/car share/taxis, service vehicles, and coaches carrying passengers to and from the Terminal.

The proposed street hierarchy within the Site allows for the following:

- A high proportion of trips within the precinct will be made by walking, cycling and/or public transport, which means that traffic levels are not expected to be high. Traffic levels are expected to align with the local street typologies planned within the precinct.
- That there may be potential for some vehicles accessing the WBCT to use Robert Street instead of relying on a separate street servicing the WBCT. This will be subject to future investigations and will include analysis on the operation and traffic movements of Robert Street and intersections.
- The broader Bays West precinct and strategic vision identified in the Bays West Place Strategy will take time to occur, which means levels of natural precinct activation will rely on activity around the station, associated public spaces and trips by all modes to/through the precinct.
- An option where a section of the existing Robert Street (between Buchanan Street and the existing warehouse buildings opposite the Ports land) could be utilised in the future by traffic from the Site travelling to the Cruise terminal on cruise days. Utilising Robert Street in this way would avoid additional road infrastructure and could reduce road network complexity and built form outcomes. It is acknowledged that any change would require further detailed investigation, traffic studies, community consultation and modification to the existing Conditions of Consent for the White Bay Cruise Terminal. The final path of ports traffic through the Site will be finalised as part of any future rezoning of the Robert Street Sub-precinct.
- A tiered street network is proposed, that has several different street typologies to service the differing needs of the Precinct.
- The service access to the White Bay Power Station is proposed to be a controlled access civic space.
- There is a pedestrian zone immediately south of The Bays station that accommodates service bollards to enable activation from the bus stop to the The Bays station. The civic space provides for a shared access, low speed, calmed traffic environment potentially accommodating pedestrians, cyclists, and service vehicles for The Bays station and commercial over-station development. If needed, service vehicles are permitted to access the pedestrian zone of the service lane in a west-to-east direction.
- A network of local streets provide for access to the White Bay Power Station and the development parcels south of The Bays station.
- The proposed street network is flexible so that any of the streets can accommodate any type of vehicle to allow for various travel routes during construction and operation of the precinct or during major events within the Future Park or the White Bay Power Station.

Main street out the front of Metro Station

Light vehicles and coaches associated with the WBCT traverse along the front of the Metro station. This provides a shorter travel path of WBCT associated vehicles and overall reduces their interface with other precinct users at the southern part of the Site. This traffic would occur only during events at the WBCT or when a cruise liner is berthed.

Main street next to the Anzac Bridge approach

WBCT associated vehicles traverse an external main street at the perimeter of the Site through to the WBPS eastern boundary and on to Robert Street and the WBCT. This main street also provides for vehicular access to/from the White Bay Power Station and the local streets and civic spaces within the development parcels south of The Bays station. This allows for a local street in front of the Metro station that integrates with the Future Park.

This option introduces a longer travel path for WBCT-associated vehicles through the Site and introduces a higher traffic street that separates The Bays station from the wider precinct including the WBPS, Rozelle Parklands and surrounding communities.

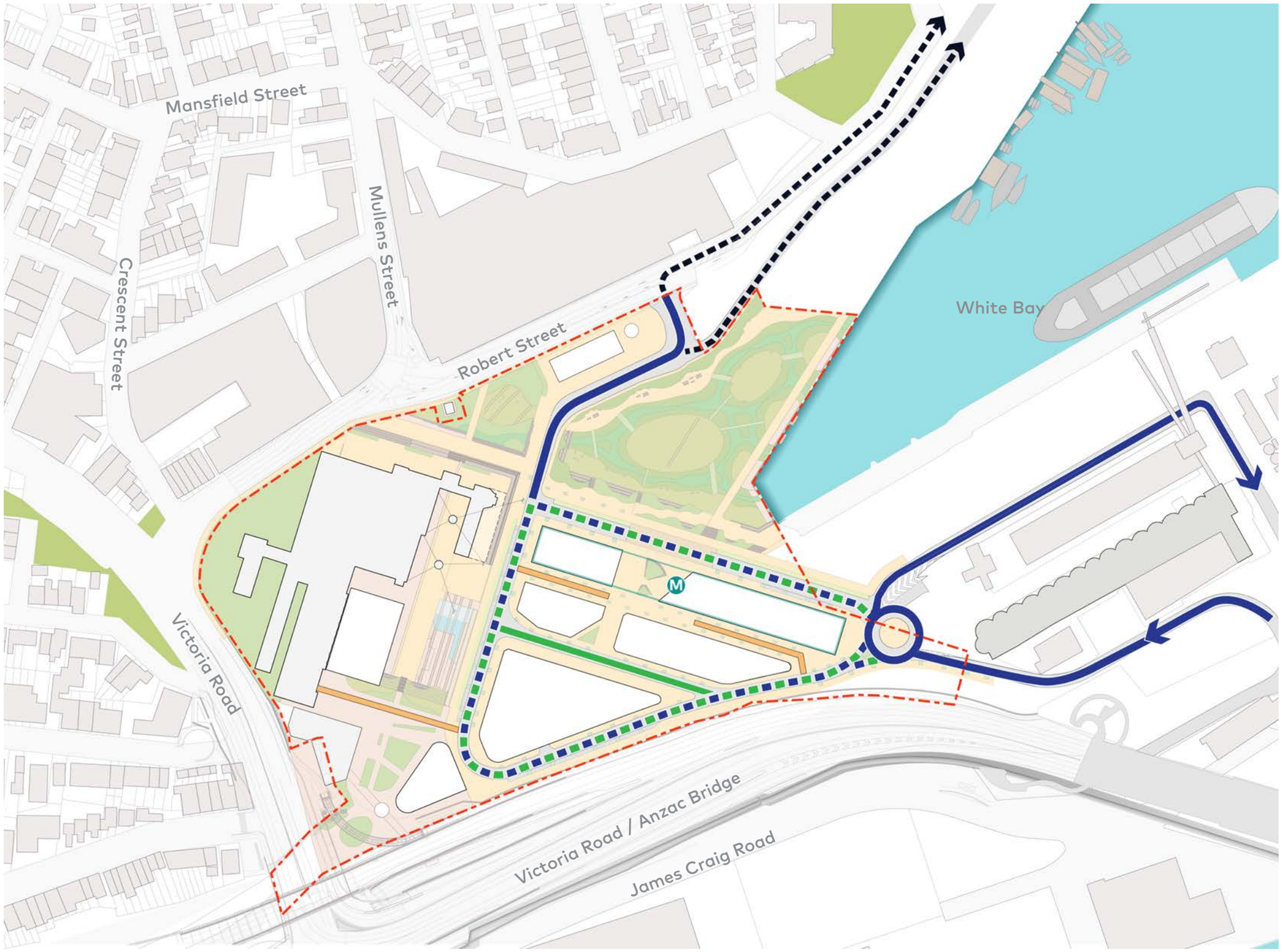


Figure 150: Street Hierarchy

0 50 100m

Site Boundary

Option for Local or Main Street

The Bays station entry

Civic Space (controlled access)

Metro Station development site

Robert Street Opportunity for Traversing Cruise Traffic

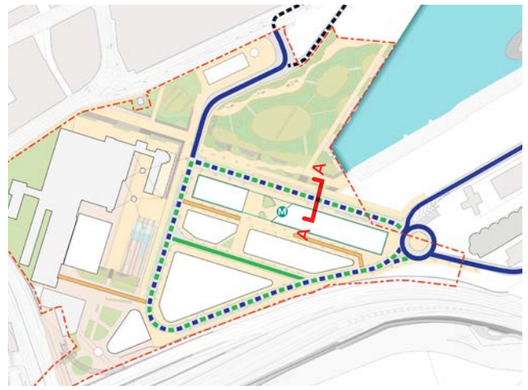
Main Street

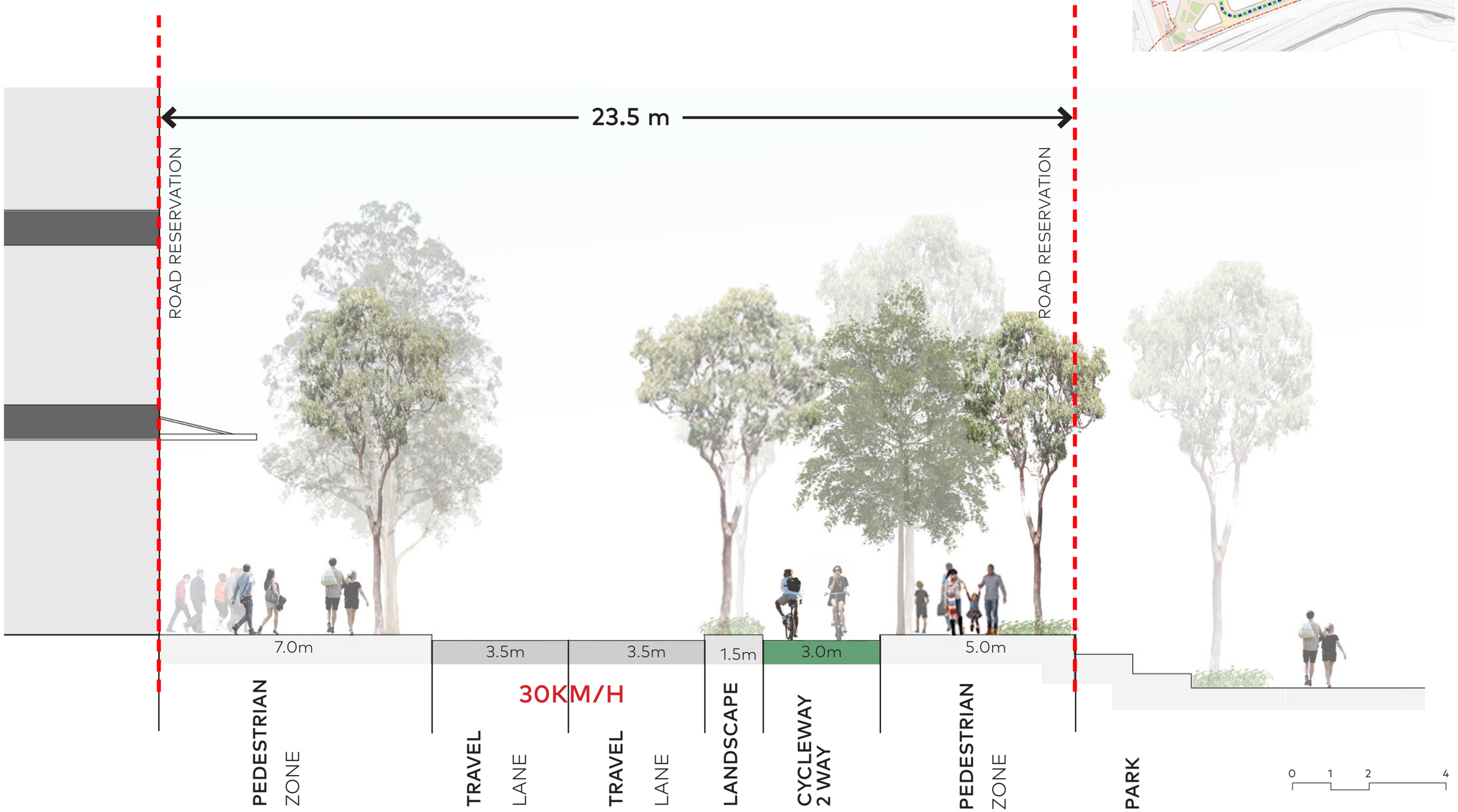
Local Street

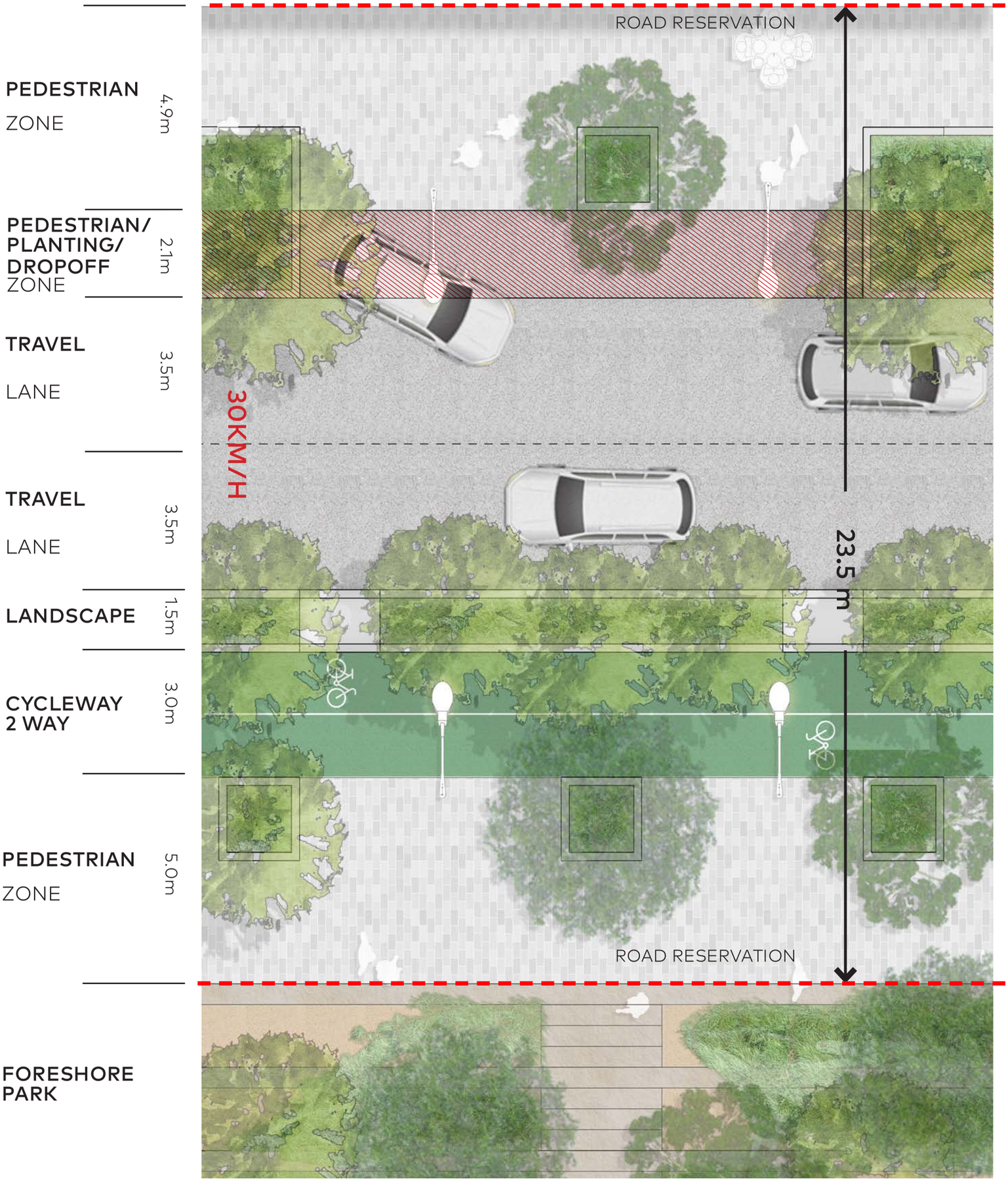
Note: Street typologies are from the NSW Movement and Place Framework

4.17.2 Street Sections

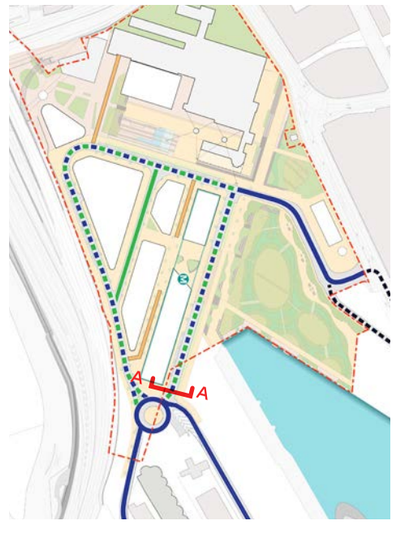
Main Street







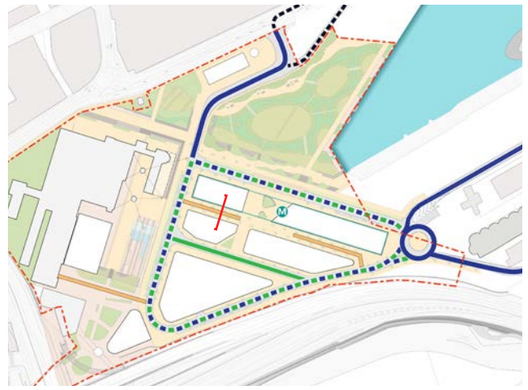
Parking and drop-off only to be provided where required pedestrian path widths can be achieved around the Metro Station

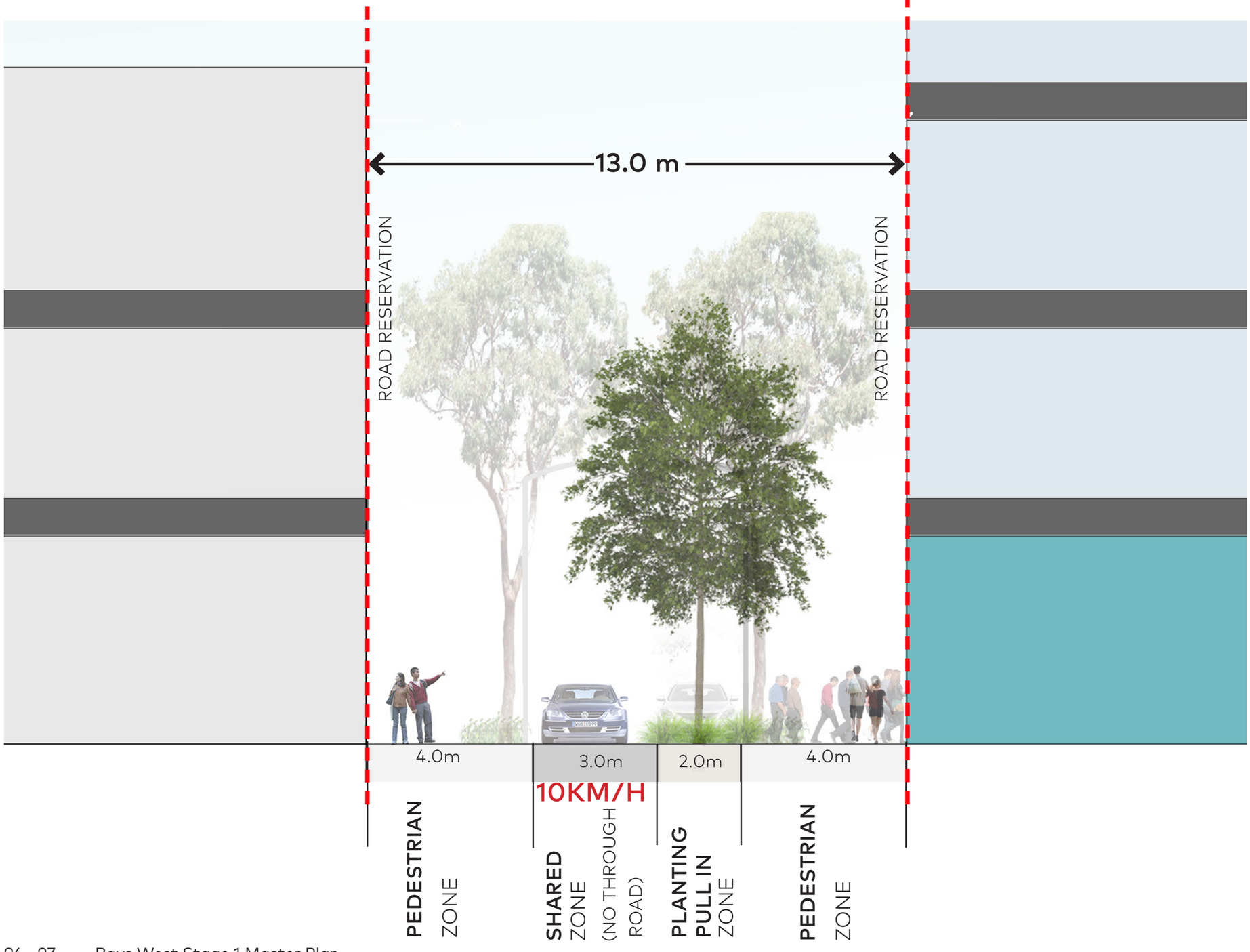


0 1 2 4

turf COX

Service Lane





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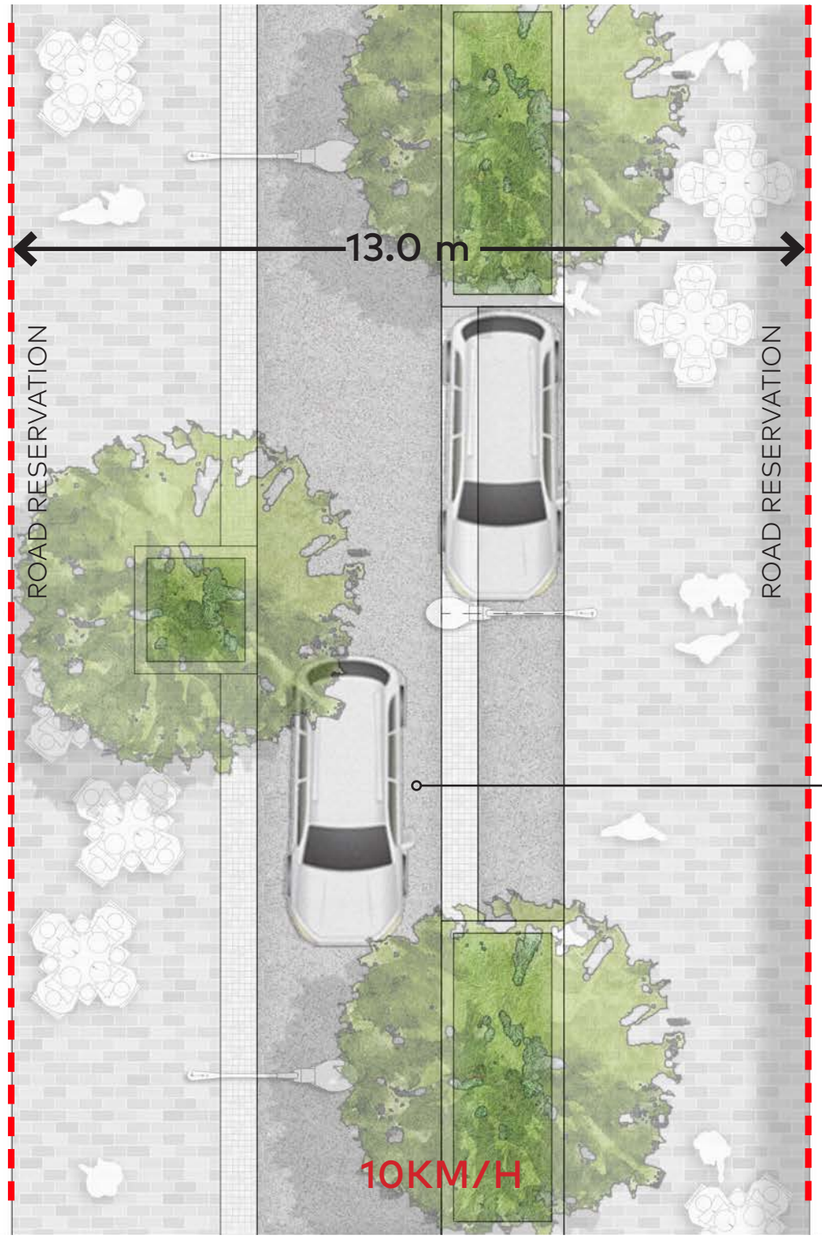


ONE-WAY SERVICE ACCESS - WEST TO EAST

4.0m
PEDESTRIAN ZONE

3.0m
SHARED ZONE (NO THROUGH ROAD)

2.0m
PLANTING PULL IN ZONE

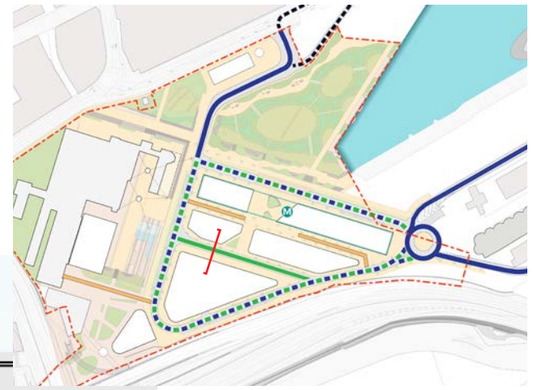
4.0m
PEDESTRIAN ZONE

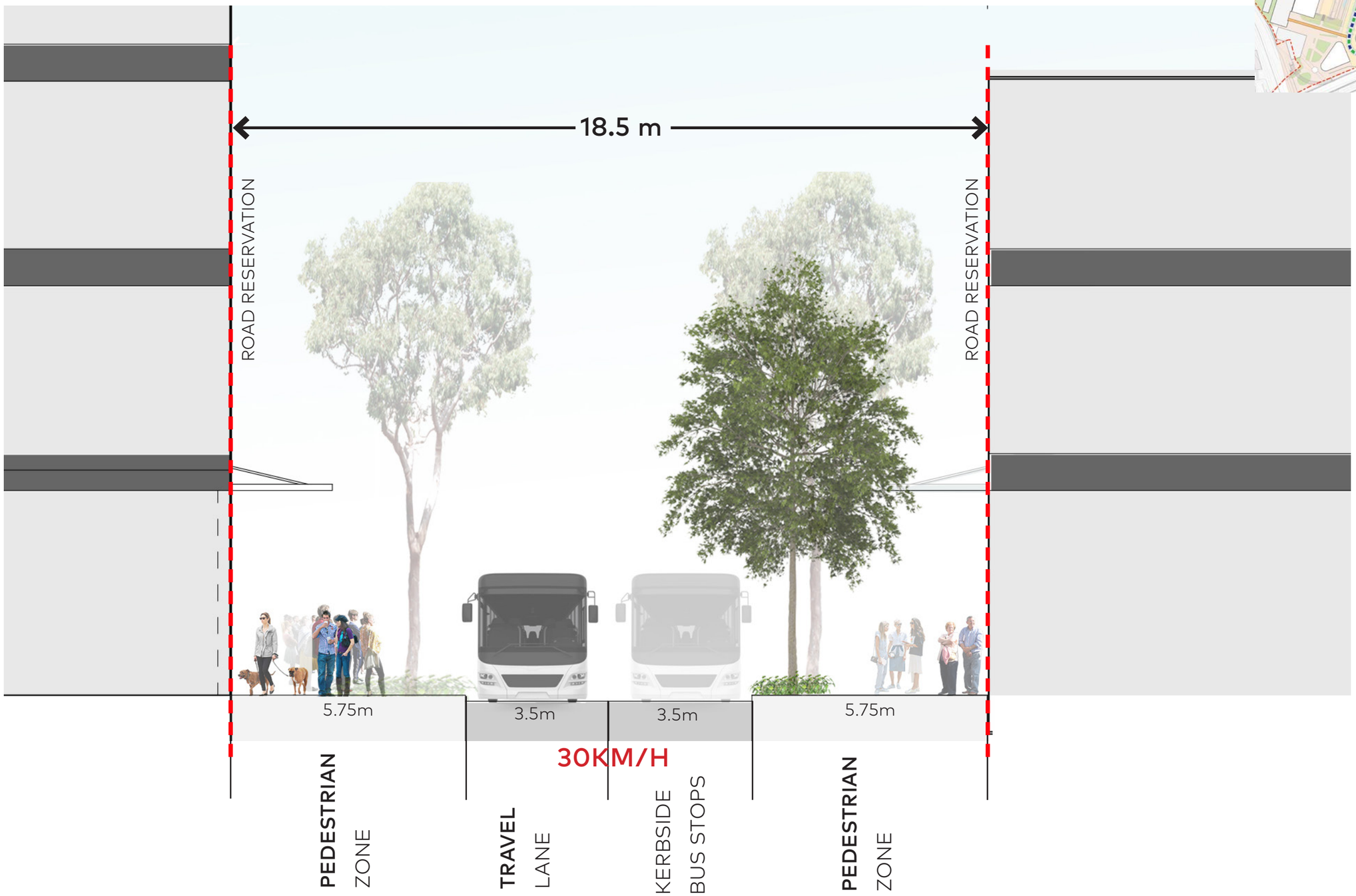
0 1 2 4

turf COX

4.17.2 Street Sections

Local Street - With Bus Stops





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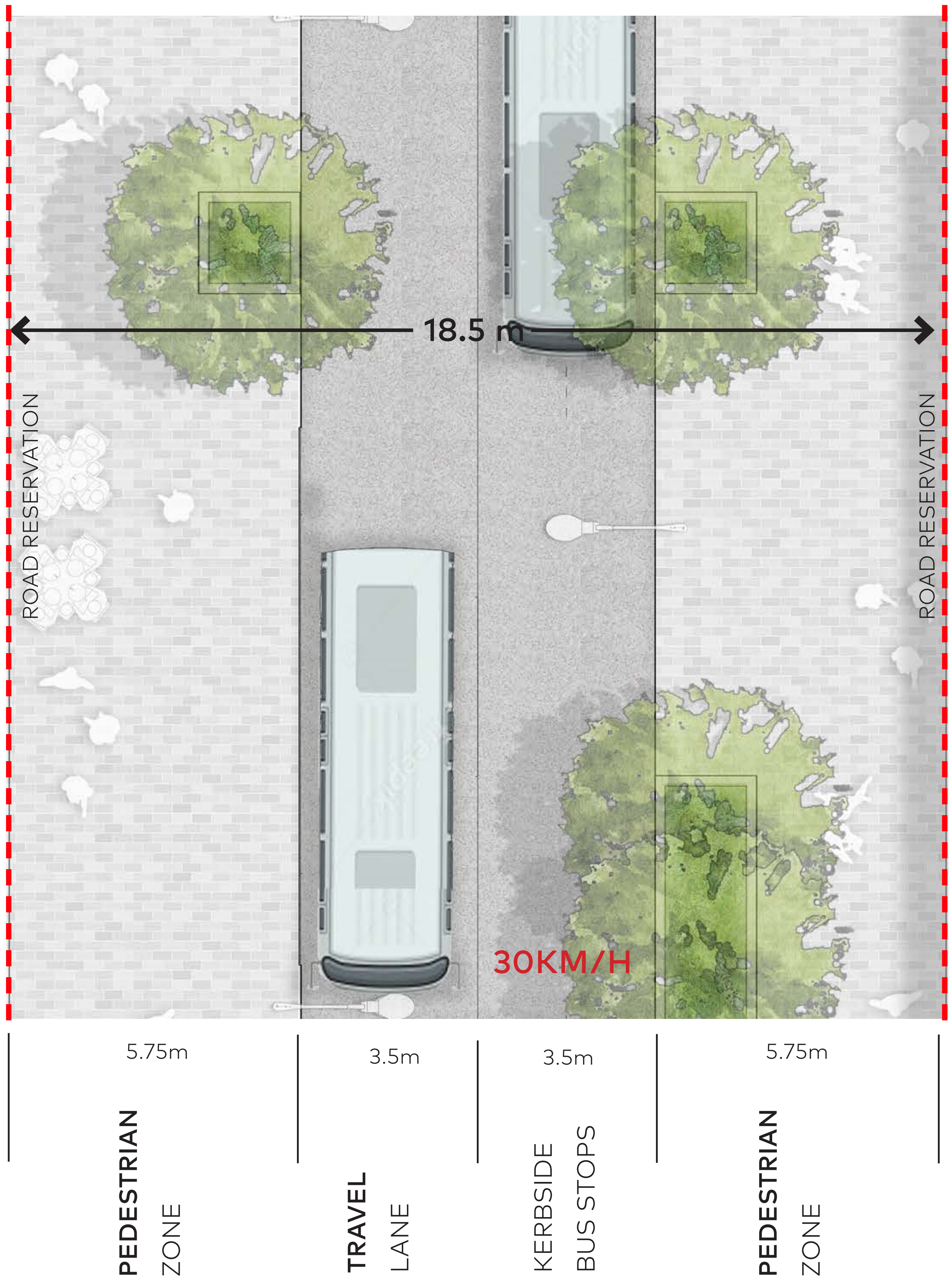

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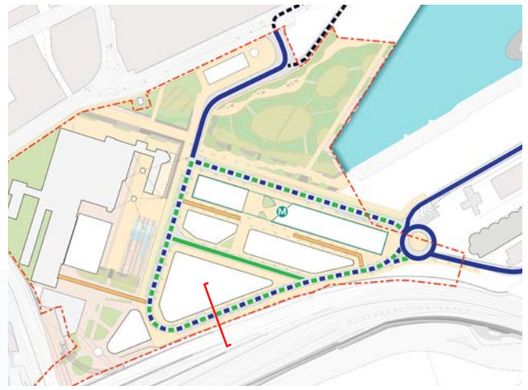
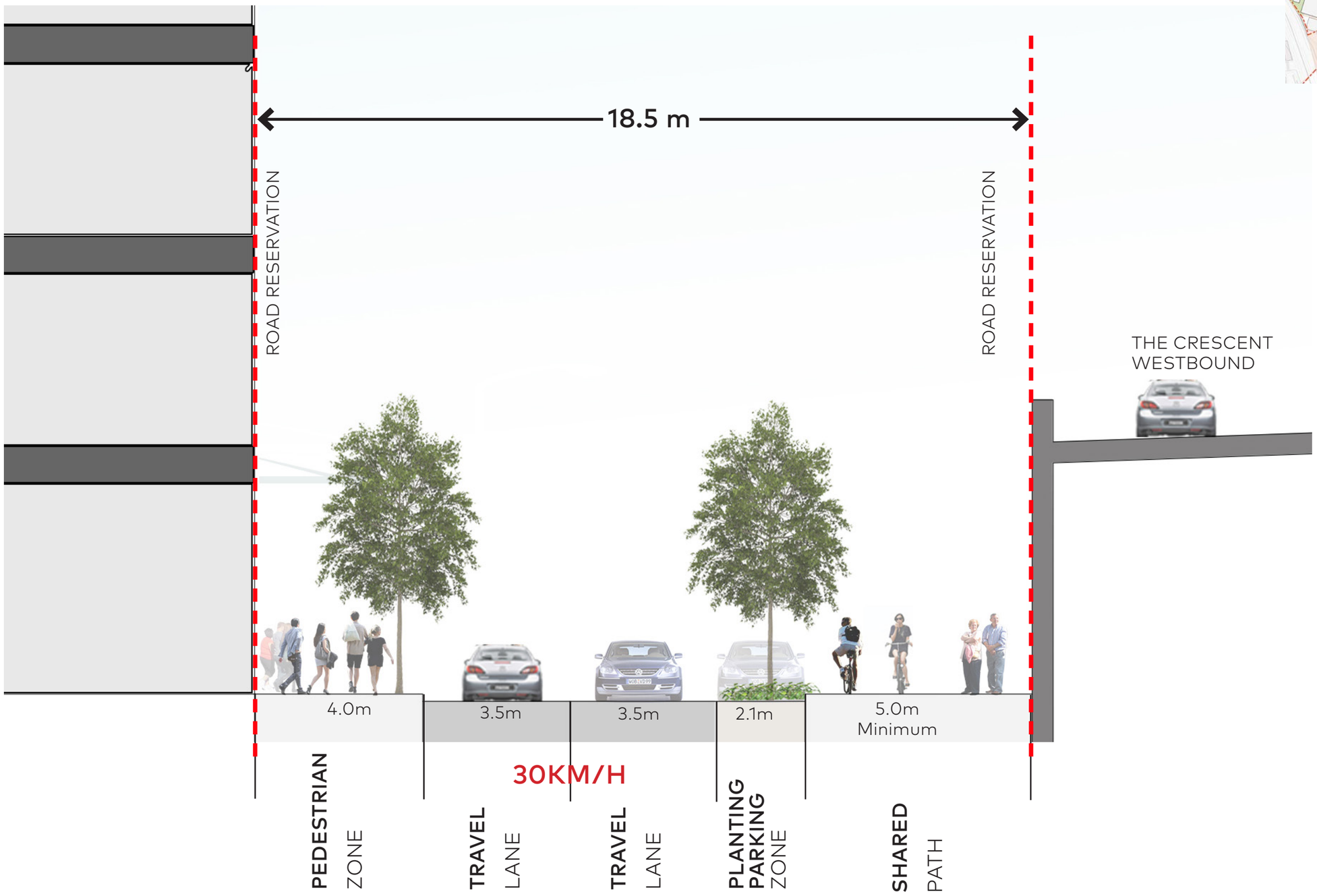
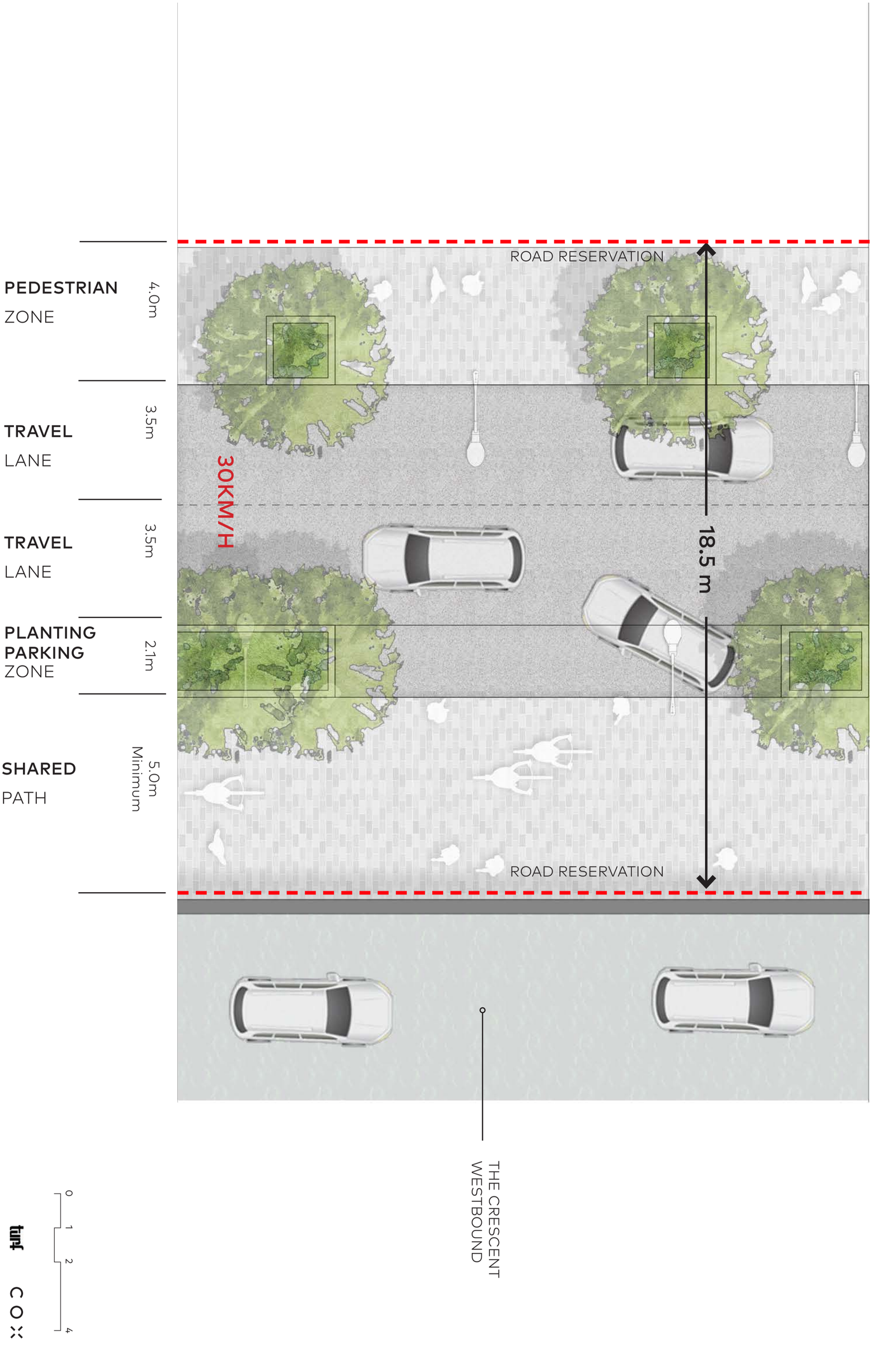
turf COX

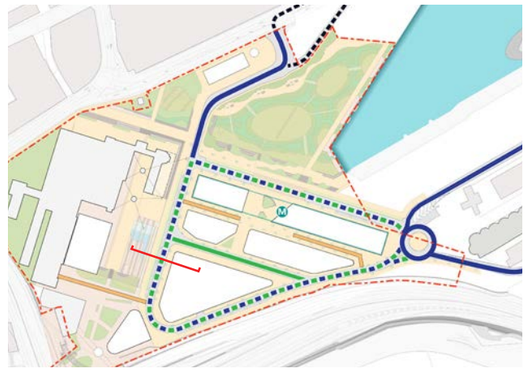
Local Street

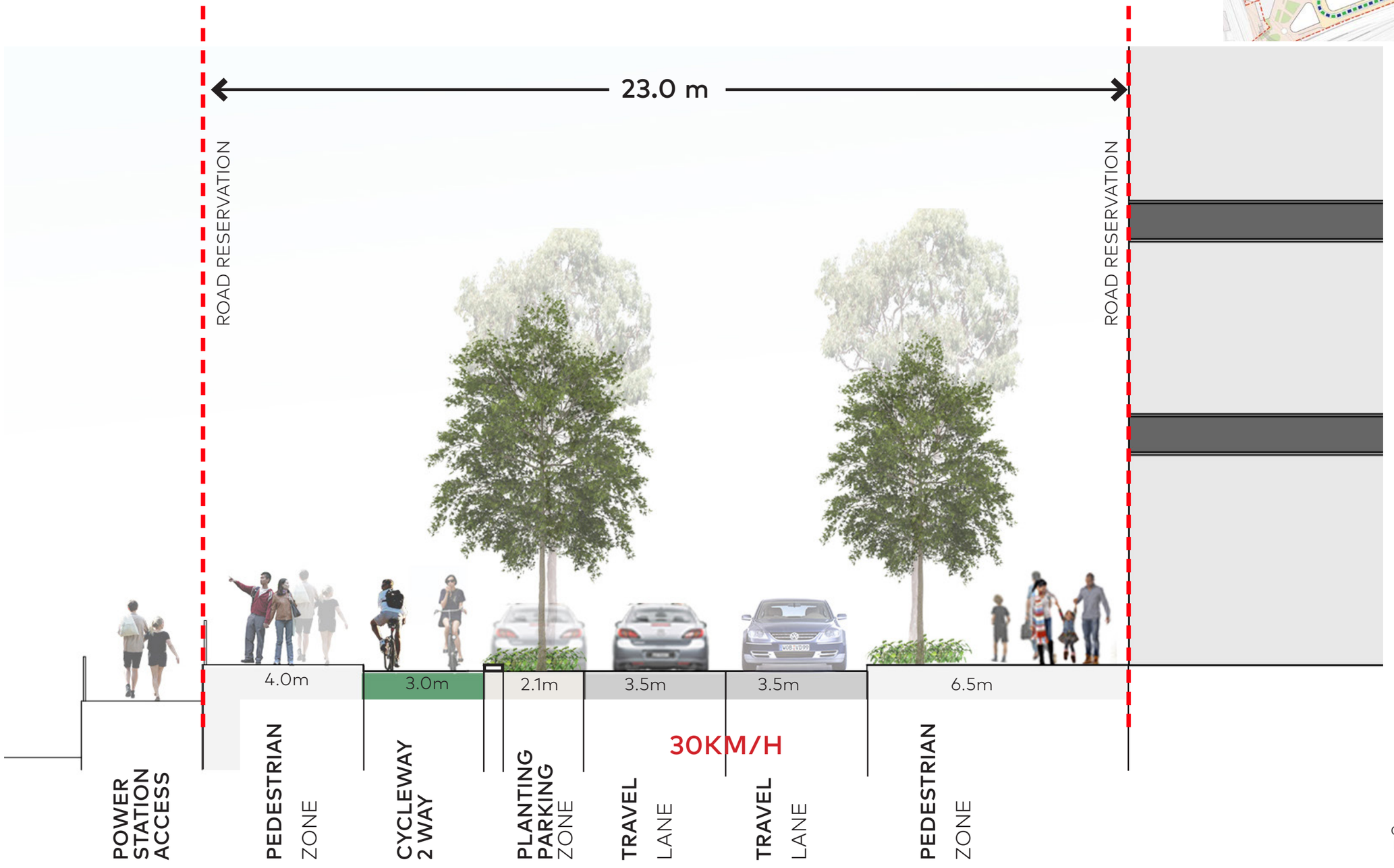





PEDESTRIAN
ZONE
4.0m
TRAVEL
LANE
3.5m
TRAVEL
LANE
3.5m
PLANTING
PARKING
ZONE
2.1m
SHARED
PATH
5.0m
Minimum
30KM/H
ROAD RESERVATION
18.5 m
ROAD RESERVATION
THE CRESCENT
WESTBOUND
0
1
2
4

Local Street - White Bay Power Station South





POWER STATION ACCESS

ROAD RESERVATION

PEDESTRIAN ZONE — 4.0m

CYCLEWAY ZONE — 3.0m

PLANTING PARKING ZONE — 2.1m

TRAVEL LANE — 3.5m

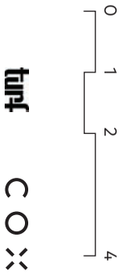
30 KM/H

23.0m

TRAVEL LANE — 3.5m

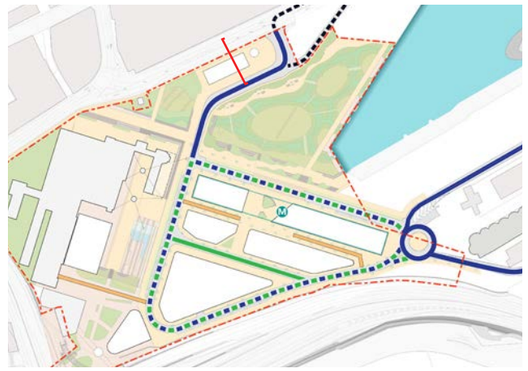
PEDESTRIAN ZONE — 6.5m

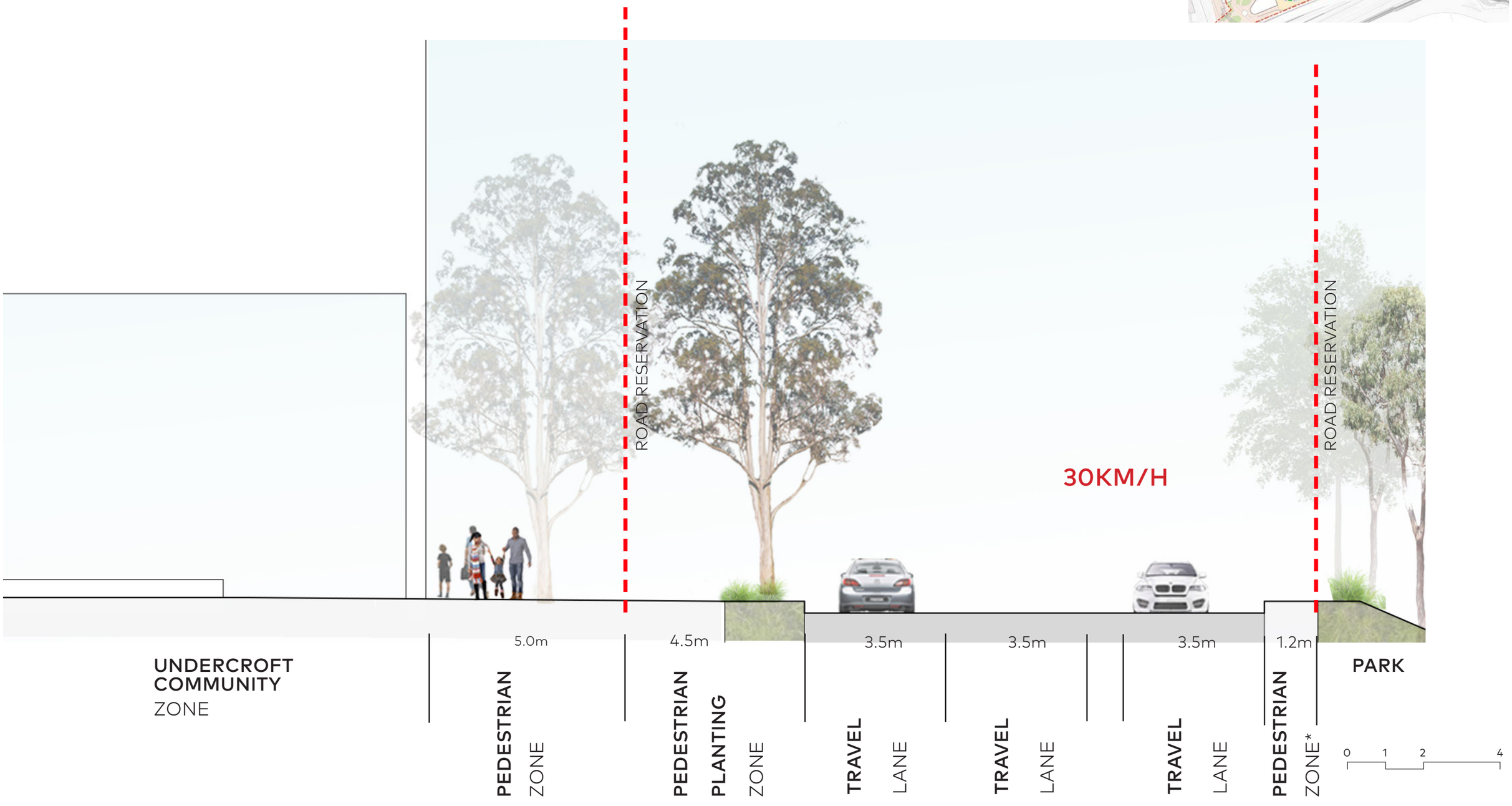
ROAD RESERVATION



4.17.2 Street Sections

Main Street - Robert Street Interface





*Dedicated walking and cycling path to be provided within the adjacent Park

VARIES

ROAD RESERVATION

ROAD RESERVATION

30KM/H

UNDERCROFT COMMUNITY ZONE

5.0m	4.5m	3.5m	3.5m	3.5m	1.2m	
PEDESTRIAN ZONE	**PEDESTRIAN PLANTING** ZONE	**TRAVEL** LANE	**TRAVEL** LANE	**TRAVEL** LANE	**PEDESTRIAN** ZONE*	PARK

0 1 2 4

*Dedicated walking and cycling path to be provided within the adjacent Park

4.17.3 Walking and Cycling

Pedestrian and cycle movement within the Site will be comprised of a comprehensive pedestrian and bicycle network which includes a mixture of dedicated off-road routes, pedestrian and bicycle priority share zones and supported by end of trip facilities and parking.

The primary pedestrian and cyclist movement is comprised of regional connections to enable movements through the precinct, from the Rozelle Railyards Precinct, White Bay, to the Metro Station, to the Anzac Bridge heading east via an at-grade connection to existing paths and to Glebe Island and on to Pyrmont and the Sydney CBD in the future via Glebe Island Bridge. There is a primary movement connection between the bus stop, Metro Station and the Future Park.

Secondary pedestrian and cyclist connections are provided to Victoria Road and Anzac Bridge and Victoria Road access in the south west of the precinct, via an underpass below Anzac Bridge to connect to Rozelle Bay, to Glebe Island as a secondary connection and to Roberts Street via a dedicated cycle path. A connection to a future walking and cycling link to Pyrmont via Glebe Island is notionally shown in a number of locations, however, this is outside of the scope of this Master Plan.

A series of finer-grain, highly pedestrianised paths are located within all precinct streets and a comprehensive network extends in to the WBPS and the harbourfront parklands.

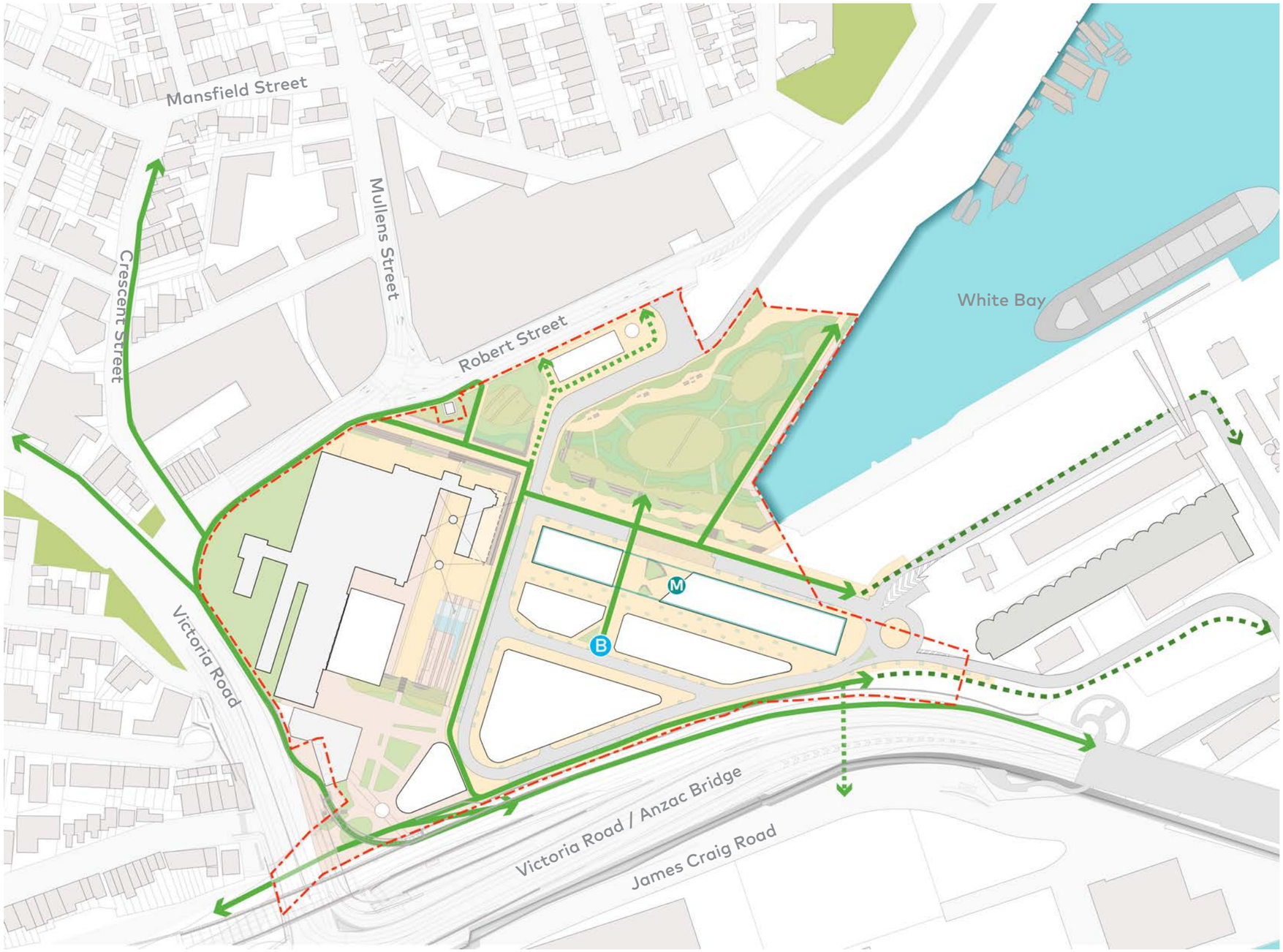


Figure 151: Walking and Cycling

4.17.4 Pedestrian Connectivity

To create a precinct that promotes walking as the primary mode crossing points that are safe and convenient are essential.

A range of crossing types have been suggested that align with the various street typologies and desire lines for all key trips. The various crossing locations and types are marked on the diagram adjacent.

Universal access is to be provided throughout the precinct without the need for paths with handrails.

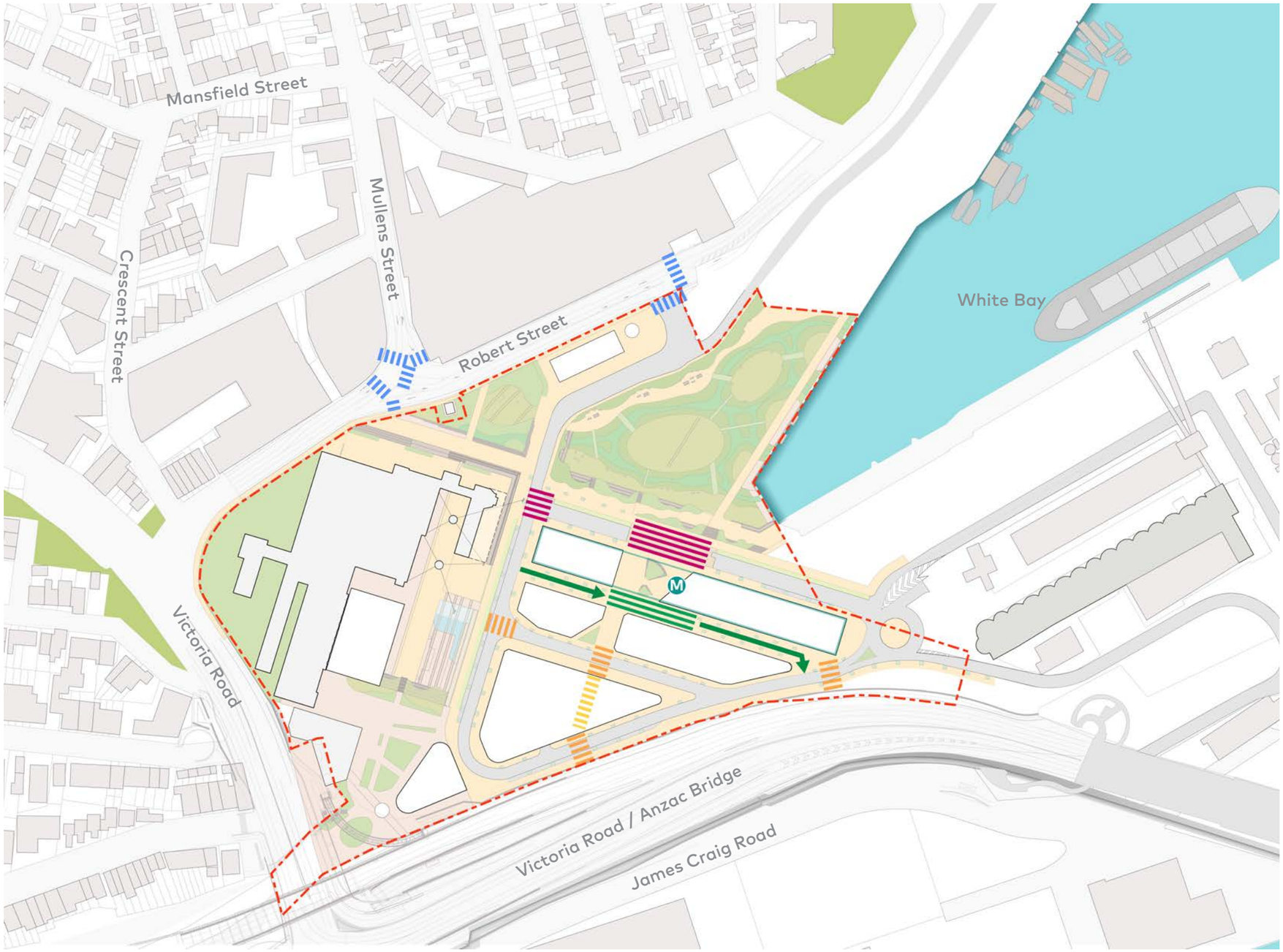


Figure 152: Pedestrian Connectivity

4.17.5 Public Transport

A comprehensive, multi-modal public transport access will afford seamless interchange between modes and access to the attractions and destinations within the precinct.

The network is anchored by a Bays West station on the planned Sydney Metro West line which will provide direct connectivity to the Sydney CBD, Sydney Olympic Park and Greater Parramatta via a driverless, turn-up-and-go service.

Bus access to the Site will be comprised of regional services to/from the north west of the Site, stopping within dedicated bus bays on Victoria Road. Local bus services will enter the Site from Robert Street and provide for pick up and drop off within a bus-only street less than 100m south of the Metro station. The geometry of the street network enables alternative bus routes exiting the Site via the main street out the front of Metro and the local street along Victoria Road/Anzac Bridge. As the broader Bays West area is developed, local services have the flexibility of connecting to other destinations within Bays West and beyond.

The Taxi / Kiss and Ride access will be provided for in dedicated bays within the streets immediately adjoining the Metro station. This will require further investigation of options as renewal of the precinct continues and will require ongoing discussions and alignment across NSW Government.

As the Site is developed over time, there may be a need to allow for changes in location of bus stops and/or taxi/kiss and ride bays.

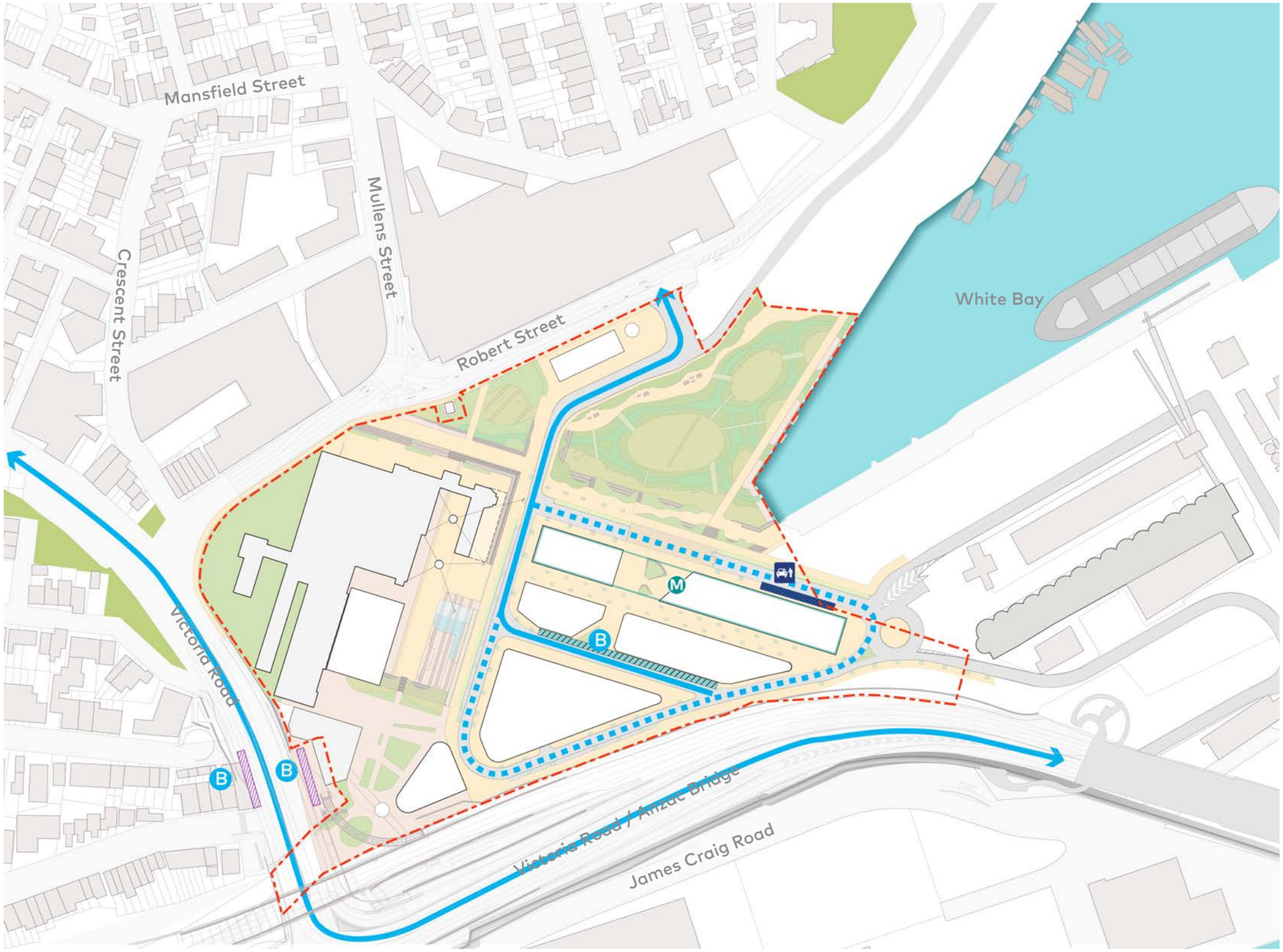


Figure 153: Public Transport

4.17.6 Car Parking and Access

Parking will be required to service the various land uses and precinct. In line with aspirations for this to be an ultra-low car environment, reduced parking rates are required.

A combination of on-street parking and a single graded basement will meet the parking needs of the Site.

On street parking will be provided in locations that minimise interactions with pedestrians and cyclists whilst still providing for convenient, accessible parking to the destinations and attractions within the site. On-street parking will primarily be provided for car share, accessible parking and electric vehicles.

Further investigation is required to explore the potential to deliver a single graded basement parking structure within the southern portion of the Site to meet the required parking provision to support the mixture of uses and users within the Site. This will have access points off local street along the Victoria Road/Anzac Bridge interface.

Carpark access also needs to consider the desire to provide for a through-building visual or physical link within the southern development parcel.

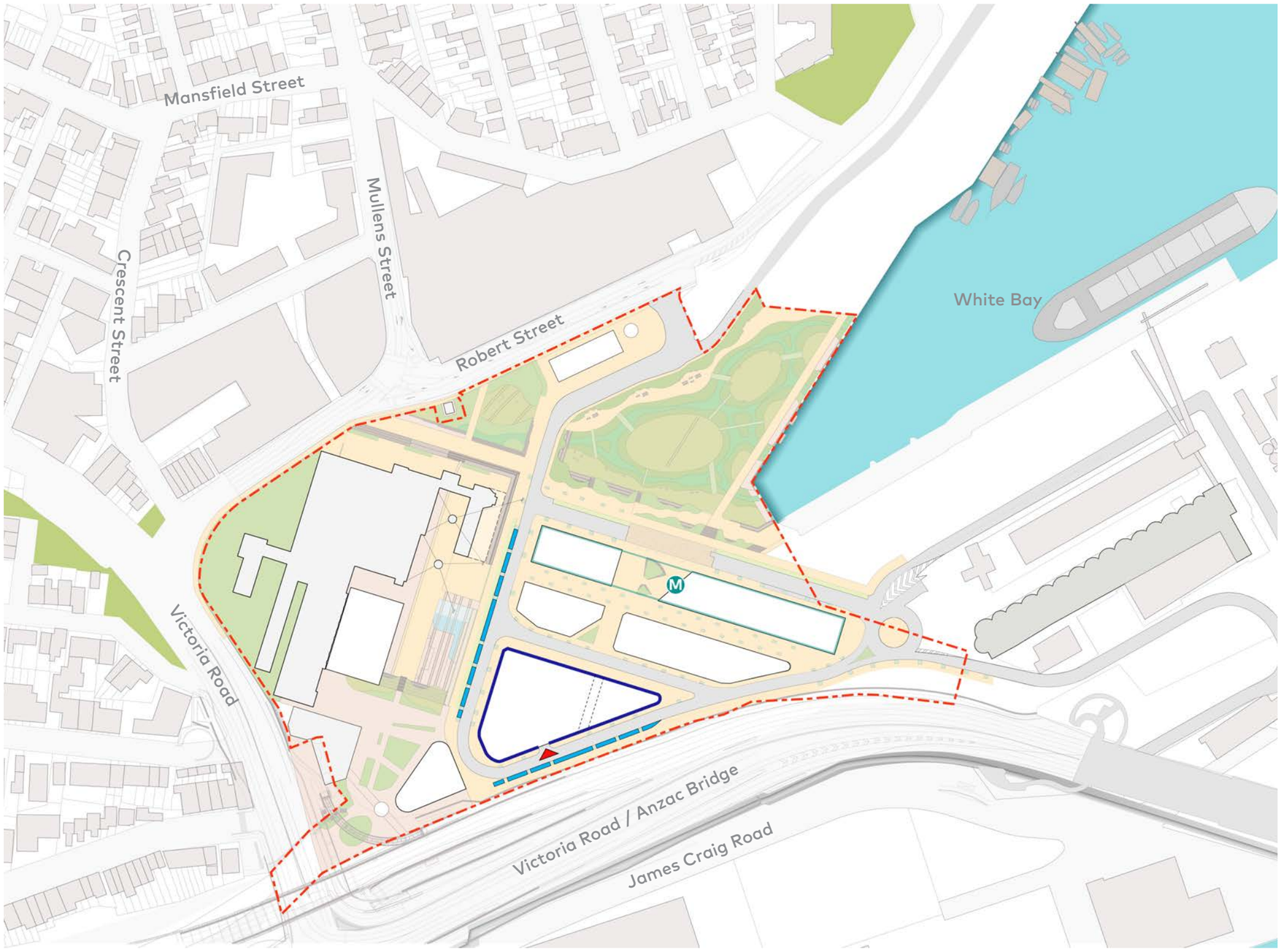


Figure 154: Car Parking and Access

4.17.7 Graded - Below Building/ Public Domain Shared Servicing and Carpark

The diagram adjacent identifies a proposed precinct wide parking and servicing approach:

- That attempts to avoid costly remediation.
- That combines low parking rates, high public transport mode share targets and on-street parking provision which significantly reduces the amount of parking required within development lots.
- That considers the level changes required to co-drain the site and protect against flooding, which affords an opportunity to provide a new layer above the existing ground condition.
- That proposes a concrete pavement as suitable for structural design purposes would be entirely appropriate to meet the site remediation/management requirements. No further excavation below existing ground levels would be needed to achieve these objectives.
- That where material disturbed for construction –foundations, in-ground servicing etc.. would then just be managed as it is produced.
- That utilises the level change within the southern lots of the development precinct allows for above ground/below building parking and servicing.
- That suggests that should level differences or service vehicle heights require levels to be above the finished ground plane, that these are sleeved with active uses to the public domain.

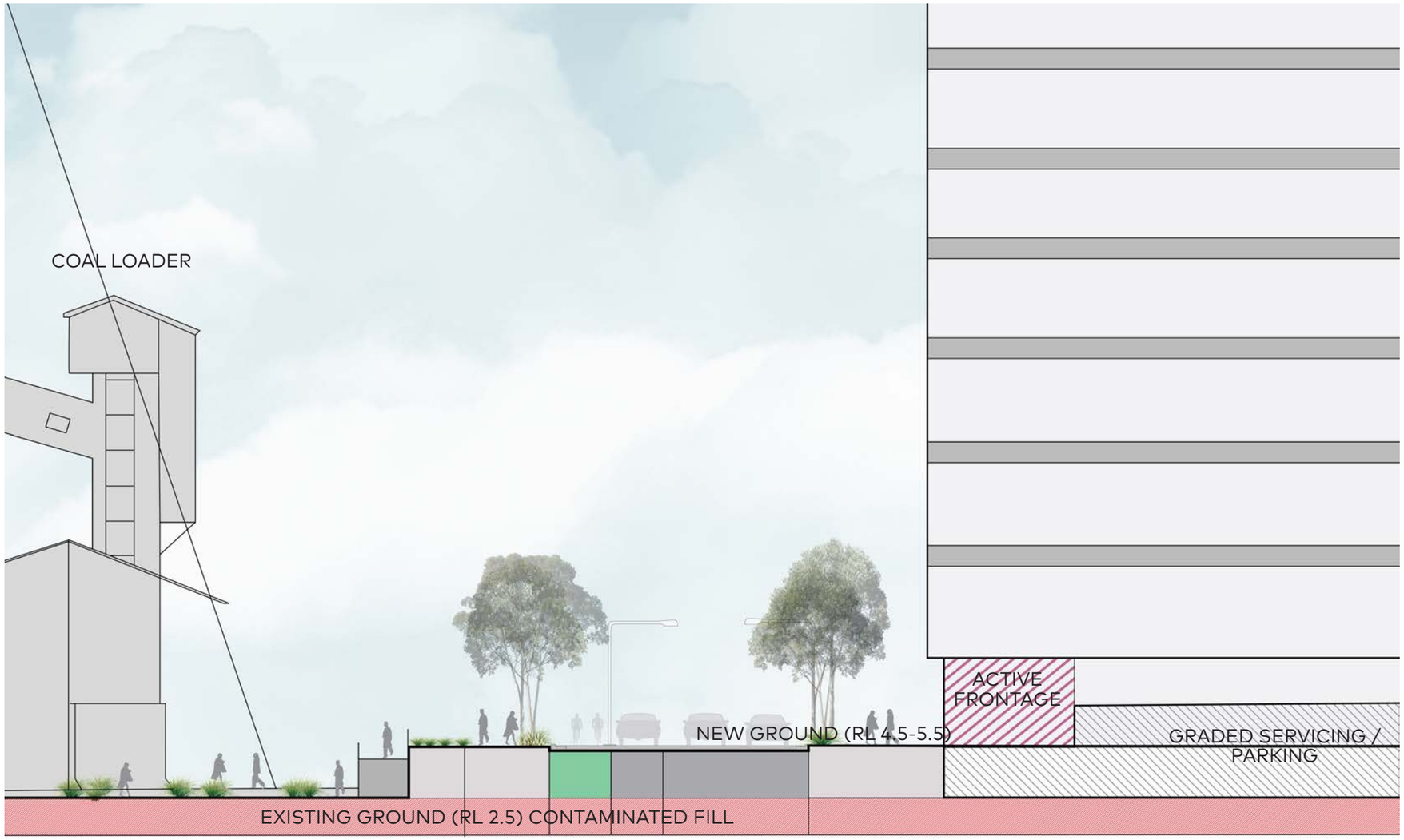


Figure 155: Graded - Below Building/Public Domain Car parking and Servicing Section

4.17.8 Service Vehicles

An initial concept for loading and servicing has been prepared, but will need to be refined as the different building uses are confirmed through rezoning and subsequent development and approval pathways.

The diagram adjacent shows the potential servicing access locations for the various development plots including the White Bay Power Station.

There is a pedestrian zone immediately south of The Bays station that accommodates service bollards and street furniture to enable activation from the bus stop to the The Bays station. If needed, service vehicles are permitted to access the pedestrian zone of the service lane in a west-to-east direction.

Service vehicle access also needs to consider the desire to provide for a through-building visual or physical link within the southern development parcel.

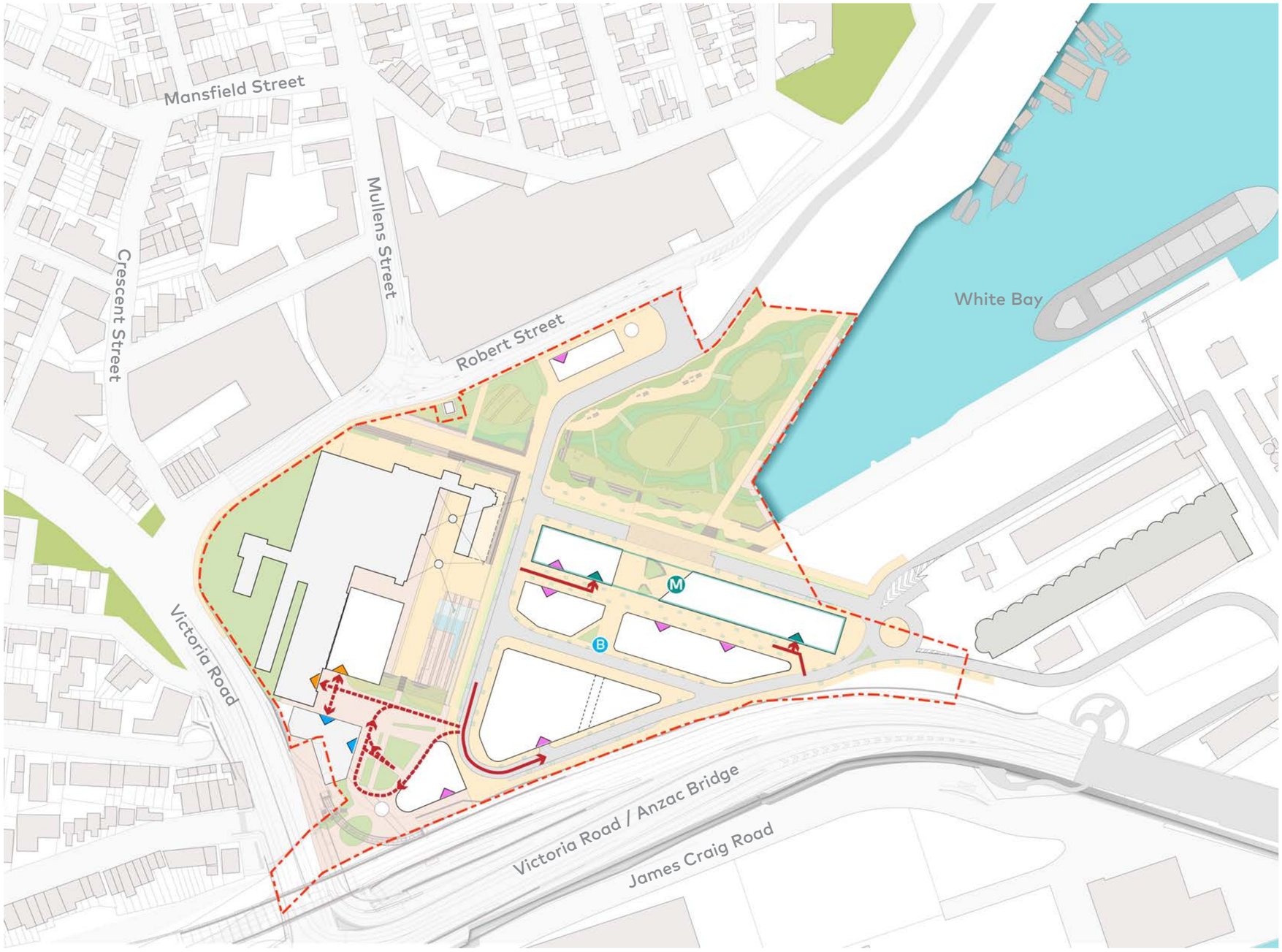


Figure 156: Service Vehicles

4.0 Urban Design Framework

4.18 Uses

The diagram adjacent shows suggested uses of the development opportunities within the Site.

The Bays station and development parcels to the south are primarily proposed to deliver non-residential floorspace with a focus on commercial office space, retail and food and beverage.

A transition to the south western urban blocks, for buildings adjoining the Victoria Road and Anzac Bridge interface may be an appropriate location for residential uses, only where the conflict between uses can be managed (e.g. residential at the levels of buildings above adjoining commercial buildings) as well as ensuring key amenity criteria can be met with respect to wind, noise, light spill and air quality.

The Intake Substation is critical infrastructure to the Metro.

The White Bay Power Station and development opportunity adjoining Robert Street on the northern side of the park will deliver a mixture of community, cultural and commercial space.

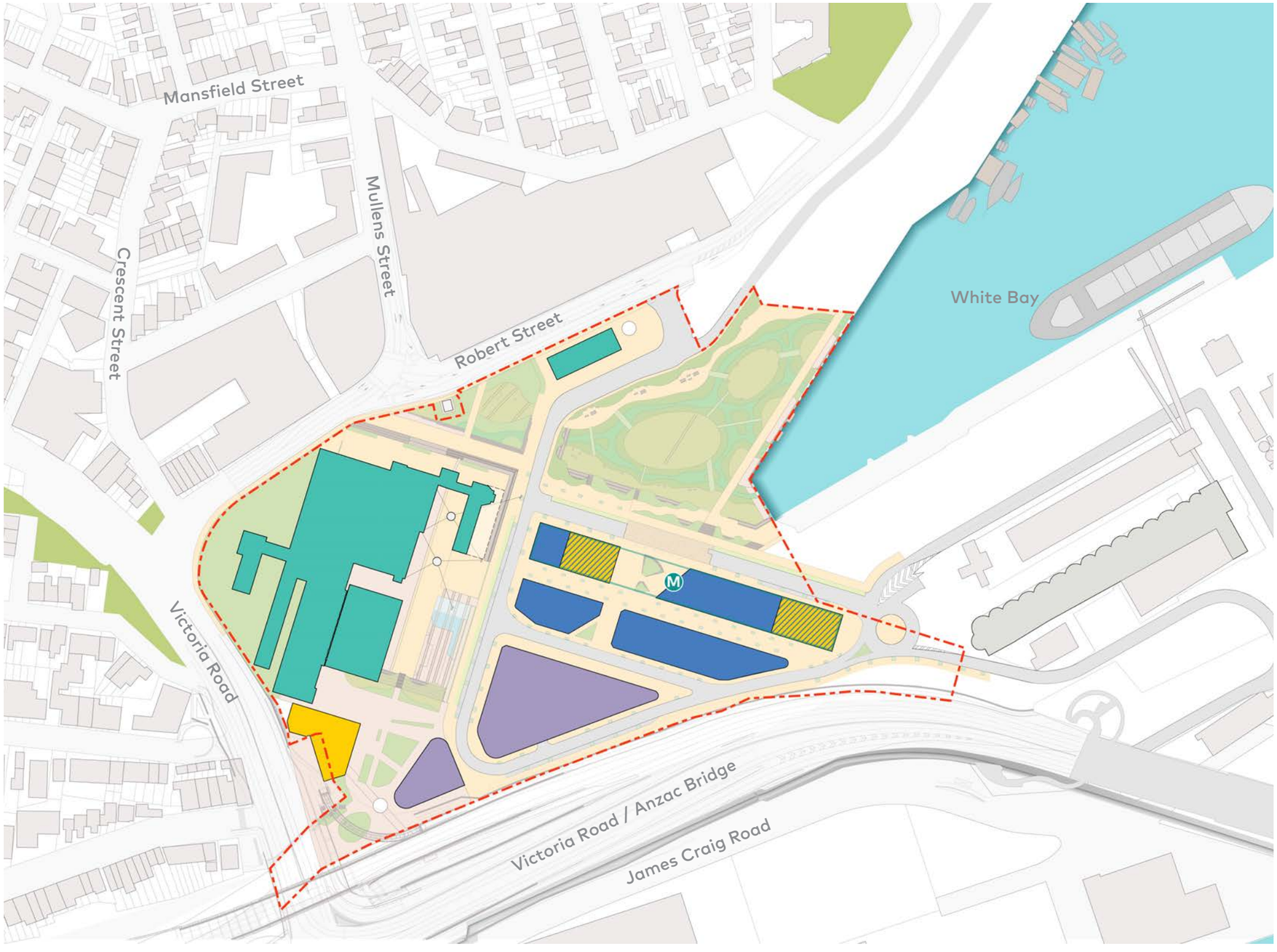


Figure 157: Land Uses

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4.19 Built Form

4.19.1 Activity Nodes and Active Frontages

The way in which a building addresses a street creates an important transition between public and private space. The careful design of this zone contributes to the liveliness, interest, comfort and safety of the street for those who use it.

Active frontages have been identified in the diagram adjacent to reinforce complementary uses or desired street character that should accommodate local retail, community, cultural uses and to reinforce their role as a focus for pedestrians.

Activity nodes are where permanent of temporary activities may occur that activate the public domain and are to be distributed throughout the Site to help draw activity and activation across the site.

The provision of active frontages also needs to consider the desire to provide for a through-building visual or physical link within the southern development parcel.

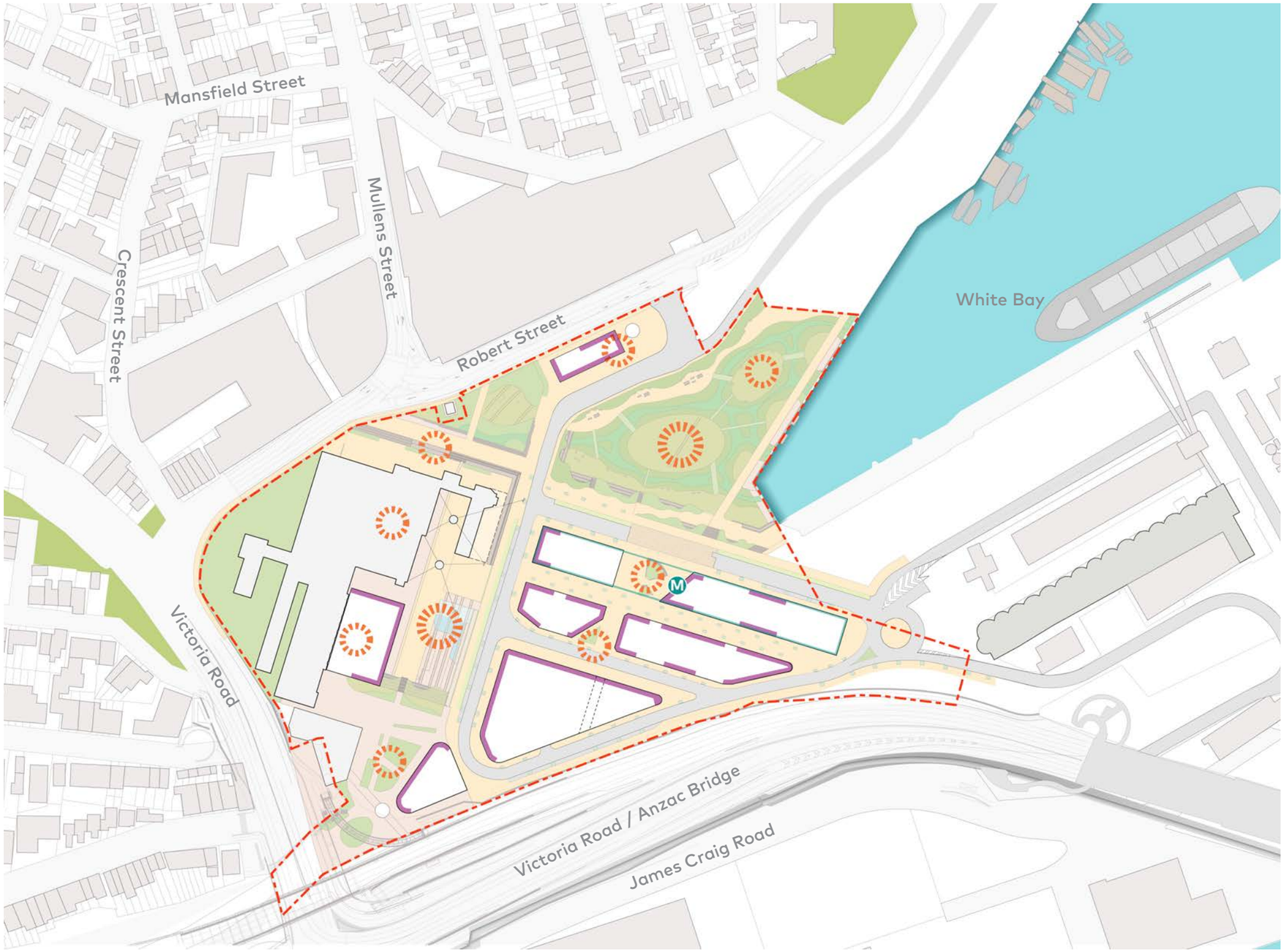

Figure 158: Activity Nodes and Active Frontages

4.19.2 Setbacks

The height of the street walls make a significant contribution to the experience of place and can add uniformity of character along particular streetscapes, or provide variations in areas where so desired.

The intention of the UDF is to deliver a new kind of urbanism, that references the built form of a traditional CBD with buildings "coming to the ground" without articulation that would ordinarily be the built form outcome in a typical podium and tower form.

In this instance the Metro station and the development opportunities surrounding it are proposed to have a 0m setback and that pedestrian amenity and weather protection is provided in the building height strategy and awnings over the public domain.

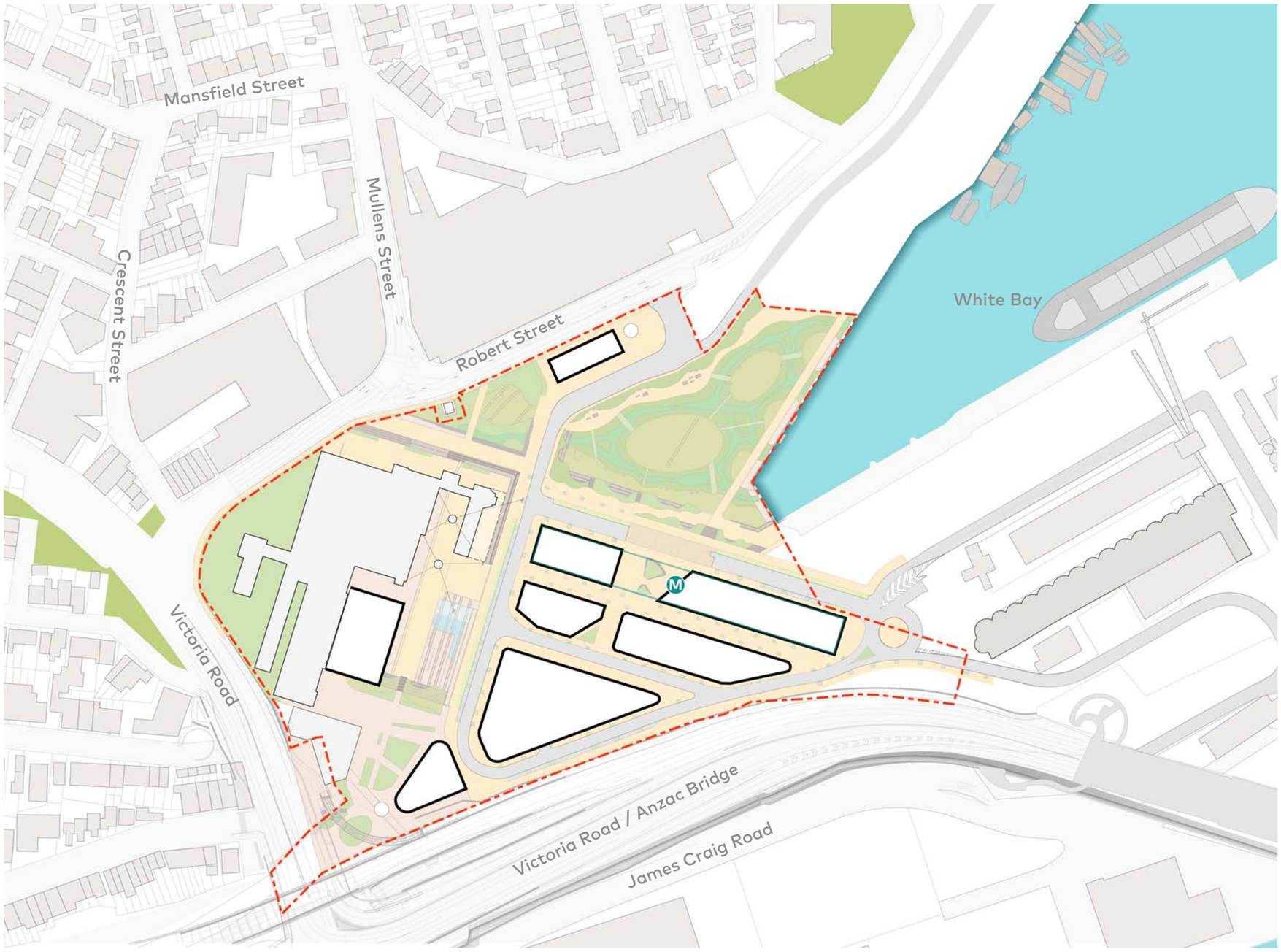

Figure 159: Setbacks

4.19.3 Built Form Composition Strategy

The Built Form Composition Strategy has been formulated through a series of known constraints, transition considerations and urban design principles.

The adjoining diagram captures the considerations of the composition strategy for the Site;

- The Metro station and associated services buildings at the equivalent of an 8-storey building.
- The requirement to preserve/offset views of the WBPS lost from the Anzac Bridge as a result of the Metro station with lower built form to the south
- The intention to transition up to higher buildings where appropriate curtilage to heritage buildings and views has been considered
- The composition of built form within the development precinct to share views to the harbour and to defend against south-westerly winds
- Transition in building height down to the Rozelle Railyard approach
- Appropriate building height within the Boiler House footprint that acknowledges the existing Boiler House height
- Lower scale built form on the northern side of the Future Park

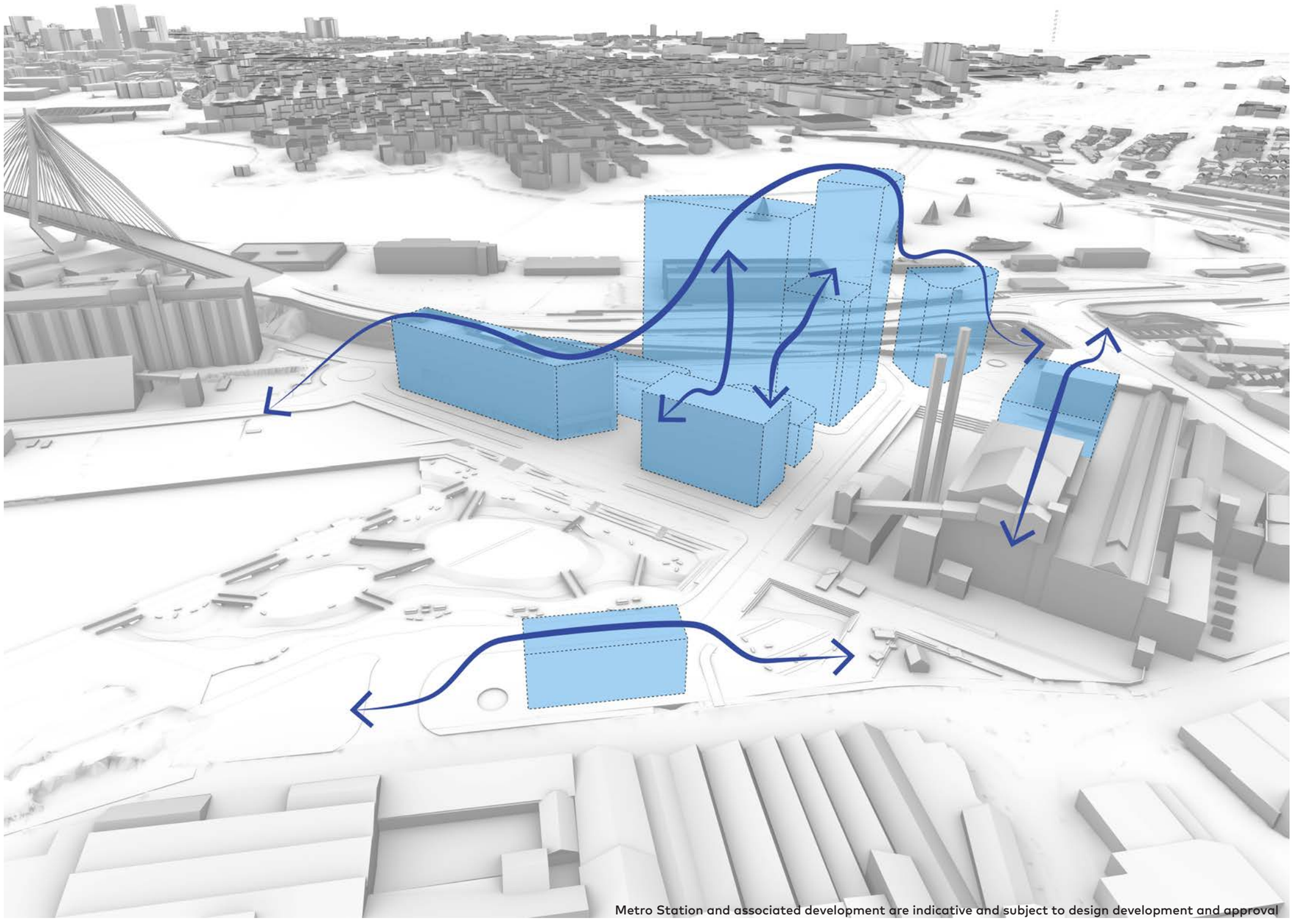

Figure 160: Built Form Composition Strategy

Building Envelopes

Height Transition

4.19.4 Building Heights

The translation of the built form composition strategy in to proposed building heights is shown in the diagram adjacent. The building heights are indicative and subject to change through the refinement of the UDF and rezoning stages of the Sub-precinct planning pathways.

- 8 storey for the Metro Station and associated development
- 4 storey for the development immediately south of the Metro Station
- 8-25 storey for the buildings within the southern development precinct
- The Intake Substation is anticipated to be approximately 10m above the ground level
- 4 storey on the northern side of the Future Park

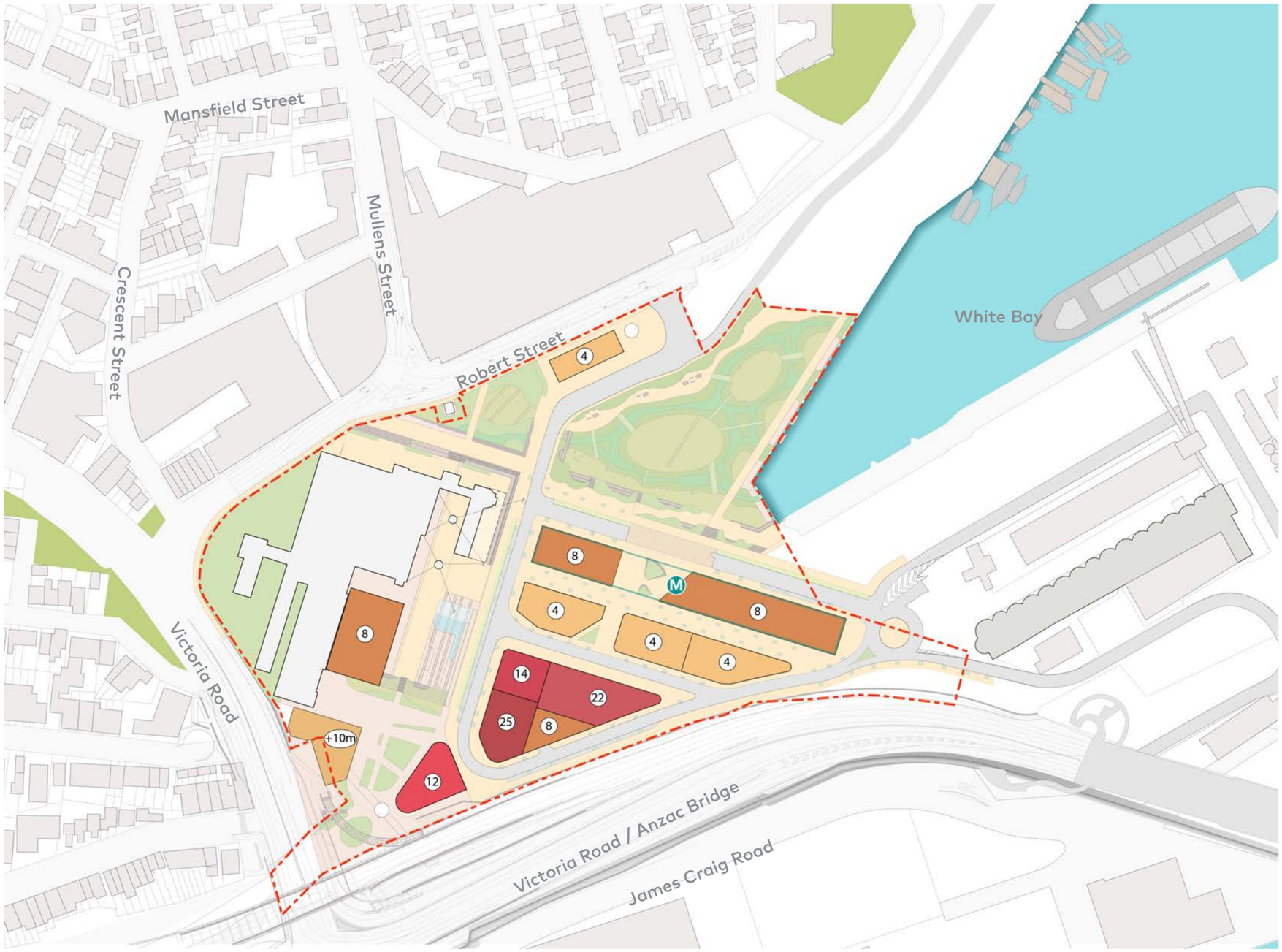

Figure 161: Building Heights

4.20 View Corridors

4.20.1 White Bay Power Station

The views to the White Bay Power Station are preserved where possible in the proposed Built Form Composition Strategy and Building Heights.

The 4 storey built form south of the Metro Station acknowledges the "changing" view of the White Bay Power Station from the Anzac Bridge as one moves from east to west as a driver, passenger, pedestrian or cyclist.

The building footprints preserve the views to/from Observatory Hill and the Harbour Bridge, and Johnston Street to/from the White Bay Power Station.

The view to/from Glebe Point Road is already impacted by the existing boat sheds in Rozelle Bay, however, any additional built form impacts should consider that the chimneys should still be visible (see Figure 138).

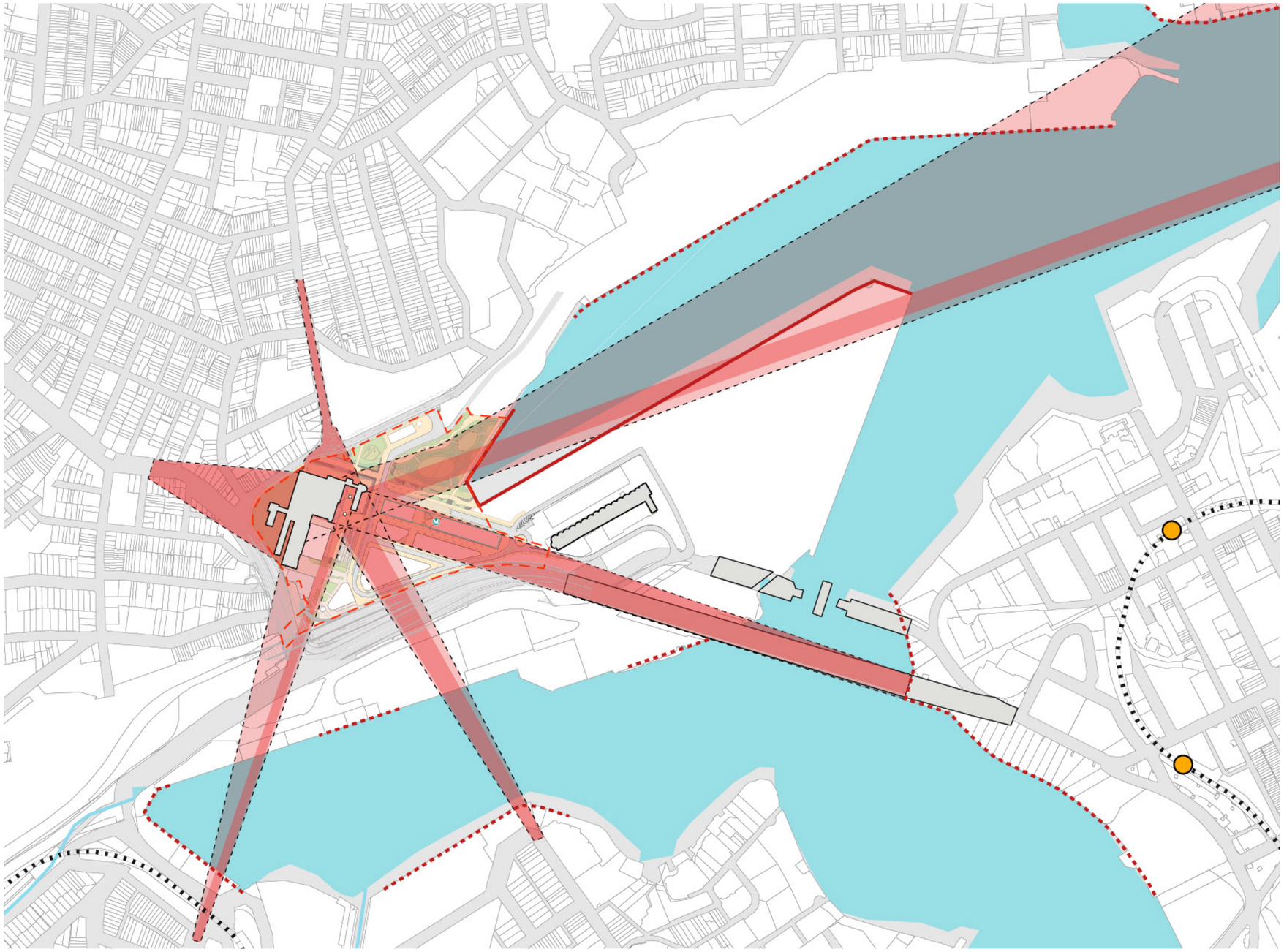

Figure 162: Scenic Landscape

4.20.2 Glebe Island Silos

The silos at Glebe Island have local heritage listing, however, have additional significance due to:

- Scale and size of silos in the Sydney region.
- Former use as main export wheat terminal significant to the state.
- Their scale and prominent location have made them a Sydney landmark.

Requirements

- The silos should retain visual relationship with key surroundings and be seen from White Bay Power Station, the western shore of White Bay and the Victoria Road approaches on the western side of Anzac Bridge.
- New buildings within the Site may be constructed, however, they should be lower in height than the silos and respect views out lined in the above dot-point.

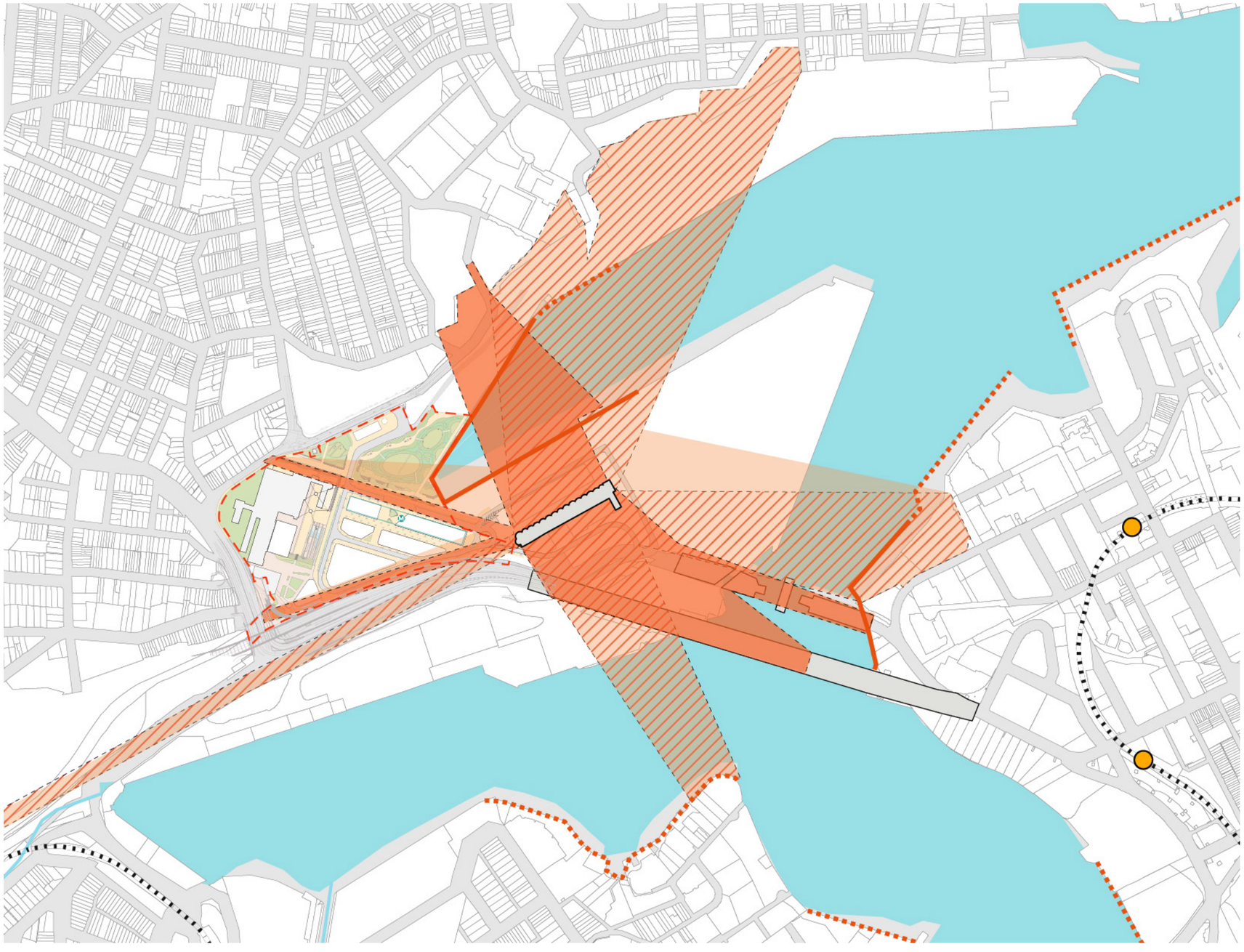

Figure 163: Heritage Landscapes

4.20.3 Anzac Bridge

The bridge is a modern landmark that dominates the Bays Precinct and provides essential part of Sydney's road infrastructure.

Requirements

- Retain significant views to the bridge particularly those views that cross the White Bay Precinct. This will support the landmark status in the area together with the silos and the White Bay Power Station.

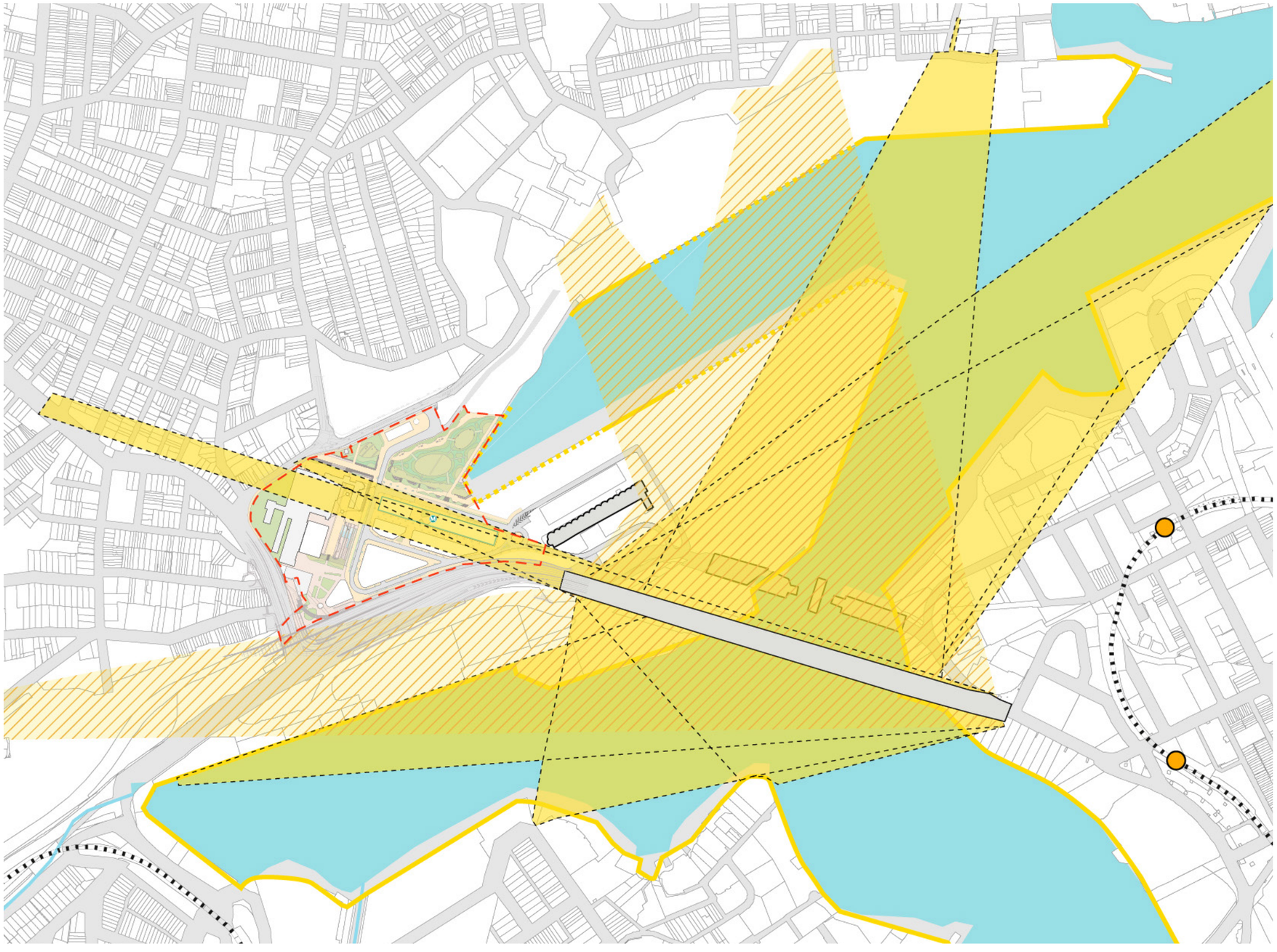

Figure 164: Heritage Elements

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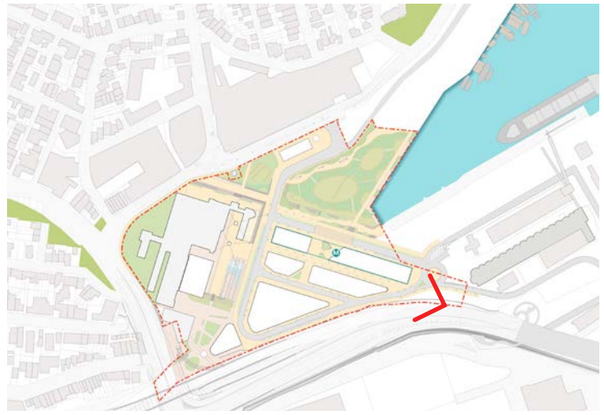
4.0 Urban Design Framework



4.21 Retention of Significant Views

The UDF acknowledges the requirements of heritage viewsheds and intuitive wayfinding to, through and within the Site. The following pages demonstrate how the UDF has protected and celebrated these key views.

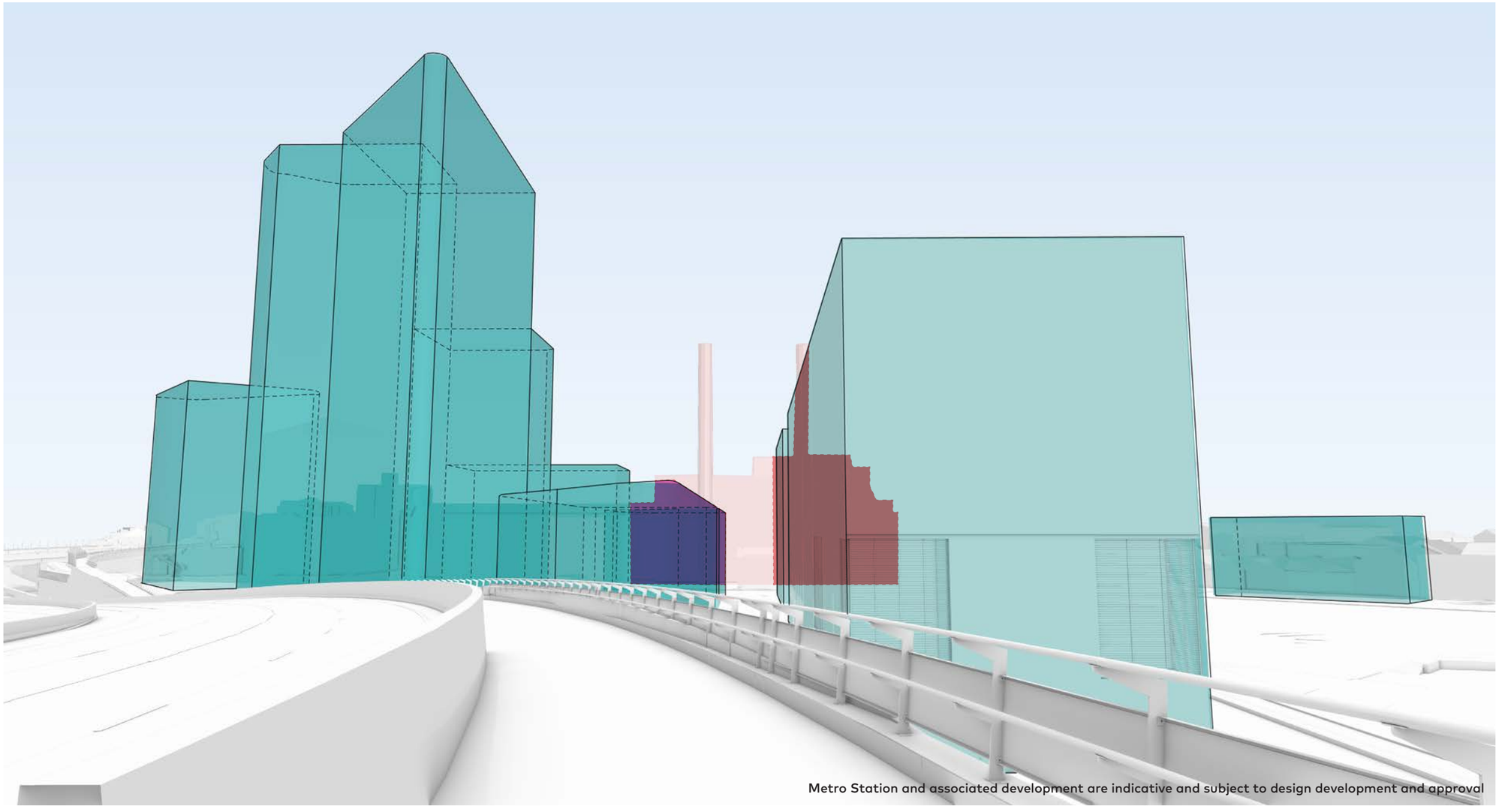
4.21.1 View towards White Bay Power Station from the Anzac Bridge

The view modelled on the diagram adjacent is a key view of the White Bay Power Station eastern facade from the Anzac Bridge pedestrian and cycle path.

The area identified in red is the view of the White Bay Power Station that will be obscured as a result of The Bays station and associated development.

The area in pink is the view that is retained and reinforced by the controls within the UDF.

The area in purple is the view of the White Bay Power Station that will be obscured as a result of the proposed 4-storey commercial buildings proposed within the UDF, however, maintaining the view of the southern chimney.



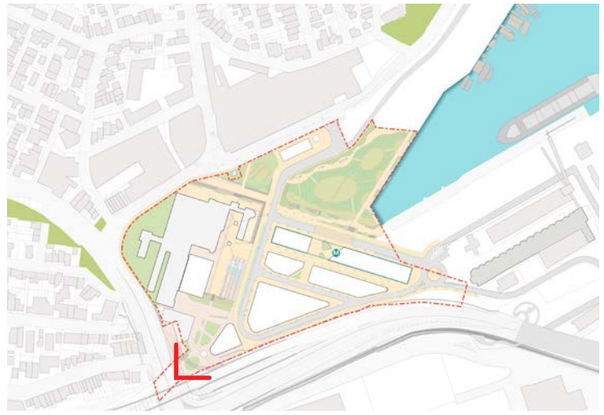
Metro Station and associated development are indicative and subject to design development and approval

Building development envelopes

White Bay Power Station

Obscured view of White Bay Power Station by 4-storey proposed commercial building

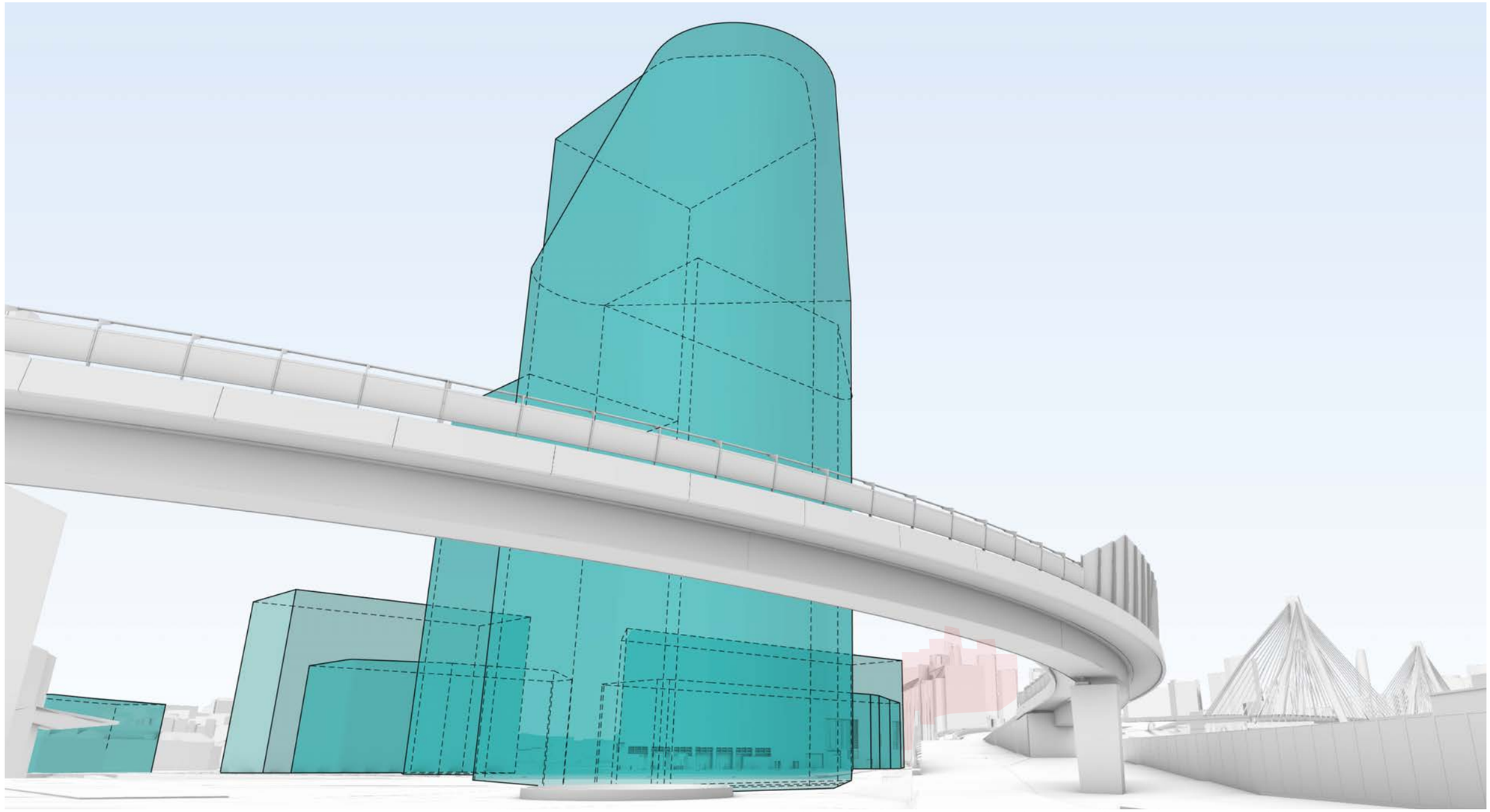
Obscured view of White Bay Power Station by The Bays Metro station



4.21.2 View towards Glebe Island Silos from Southern Entry

The view modelled on the diagram adjacent is a key view of the Glebe Island Silos (shown in pink) from the arrival to the Site from the Rozelle Railyards Regional open space network.

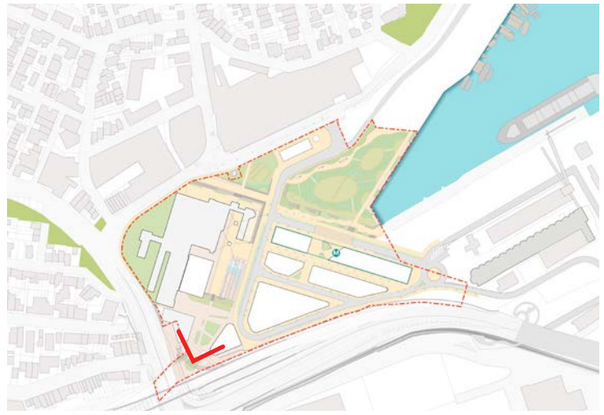
The UDF proposes that buildings are set back and a street is located along this view corridor to maintain the views to the heritage listed building and to facilitate intuitive wayfinding.



Building development envelopes

Glebe Island Silos

Metro Station and associated development are indicative and subject to design development and approval



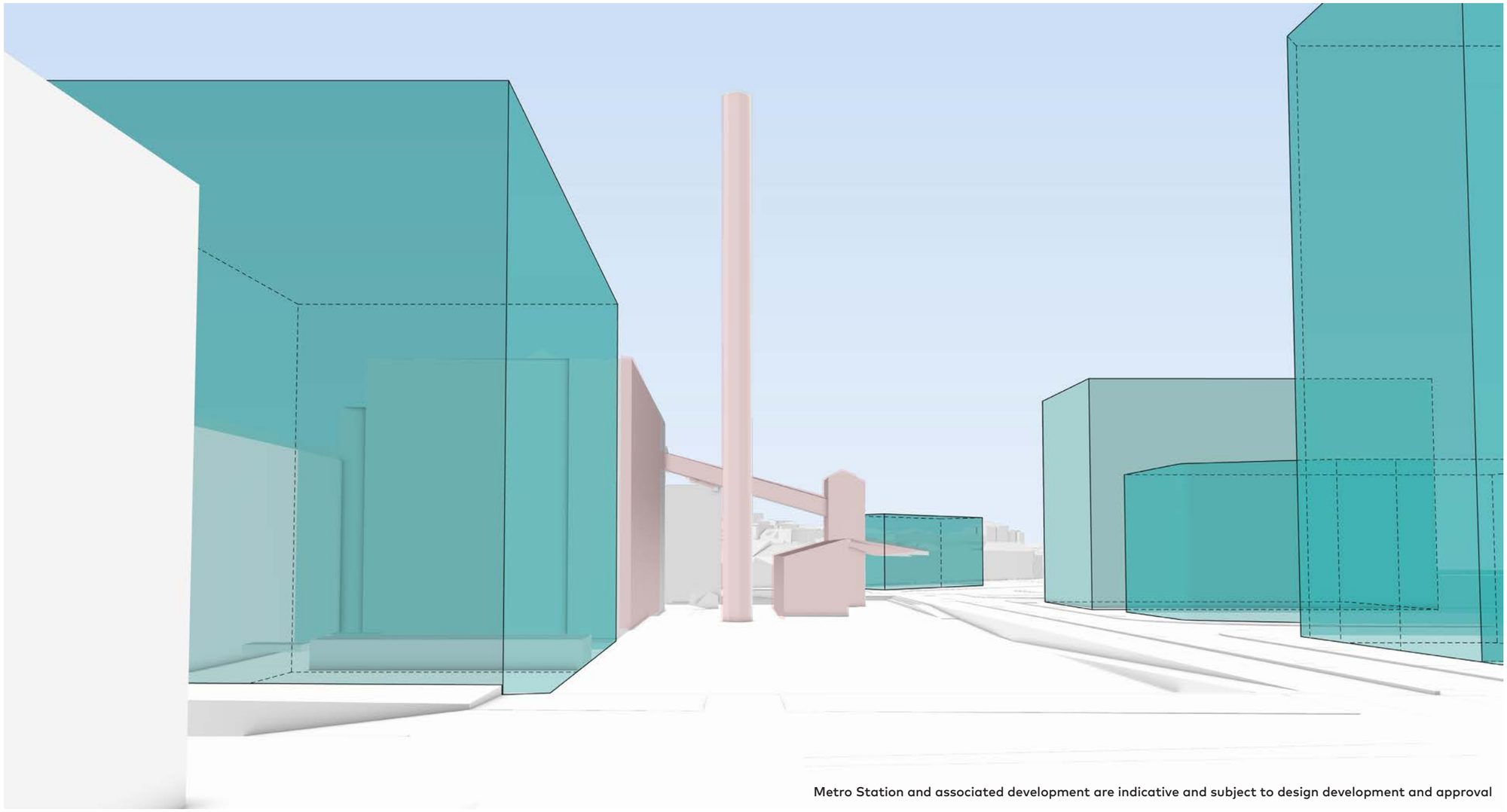
4.21.3 View towards White Bay Power Station from south western arrival

The view modelled on the diagram adjacent is a key view of the White Bay Power Station, coal loader shed and chimneys (shown in pink) from the arrival to the Site from the Rozelle Railyards Regional open space network.

The UDF proposes that the north-south street is appropriately set back to the right of the diagram to acknowledge the significant scale of the White Bay Power Station and to provide an appropriate curtilage to these elements.

Views to the White Bay Power Station, chimneys and coal loader facilitate intuitive wayfinding through the Site.

A building is proposed within the footprint of the old boiler house, in line with the Conservation Management Plan for the White Bay Power Station.



Metro Station and associated development are indicative and subject to design development and approval

Building development envelopes

White Bay Power Station

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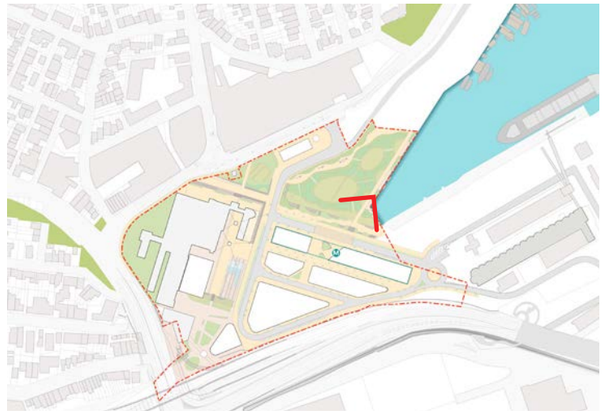
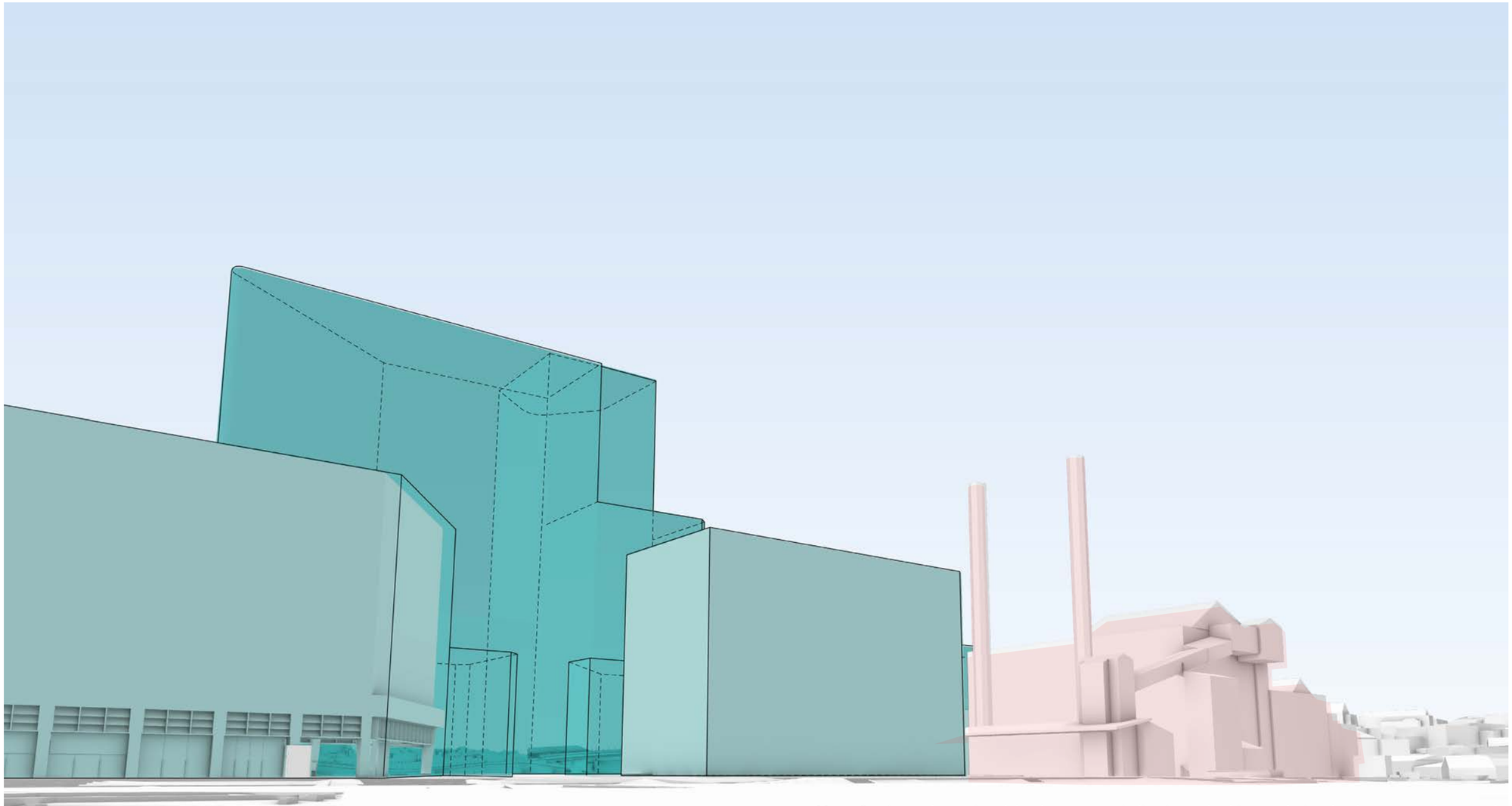


4.21.4 View towards White Bay Power Station from eastern arrival

The view modelled on the diagram adjacent is a key view of the White Bay Power Station (shown in pink)from the arrival to the Site from Glebe Island to the east.

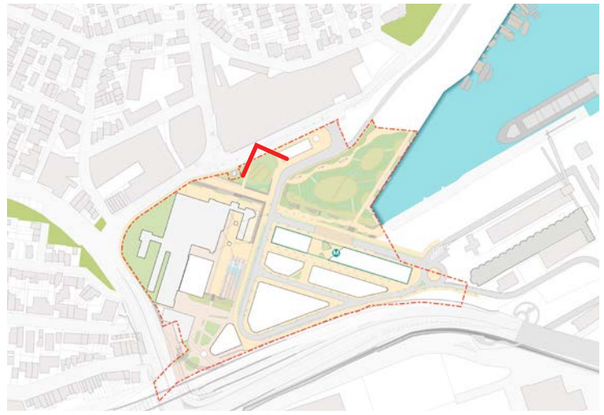
The UDF proposes that the north-south street and the Metro associated development are appropriately set back to acknowledge the significant scale of the White Bay Power Station and to provide an appropriate curtilage to these elements.



Metro Station and associated development are indicative and subject to design development and approval

Building development envelopes

White Bay Power Station

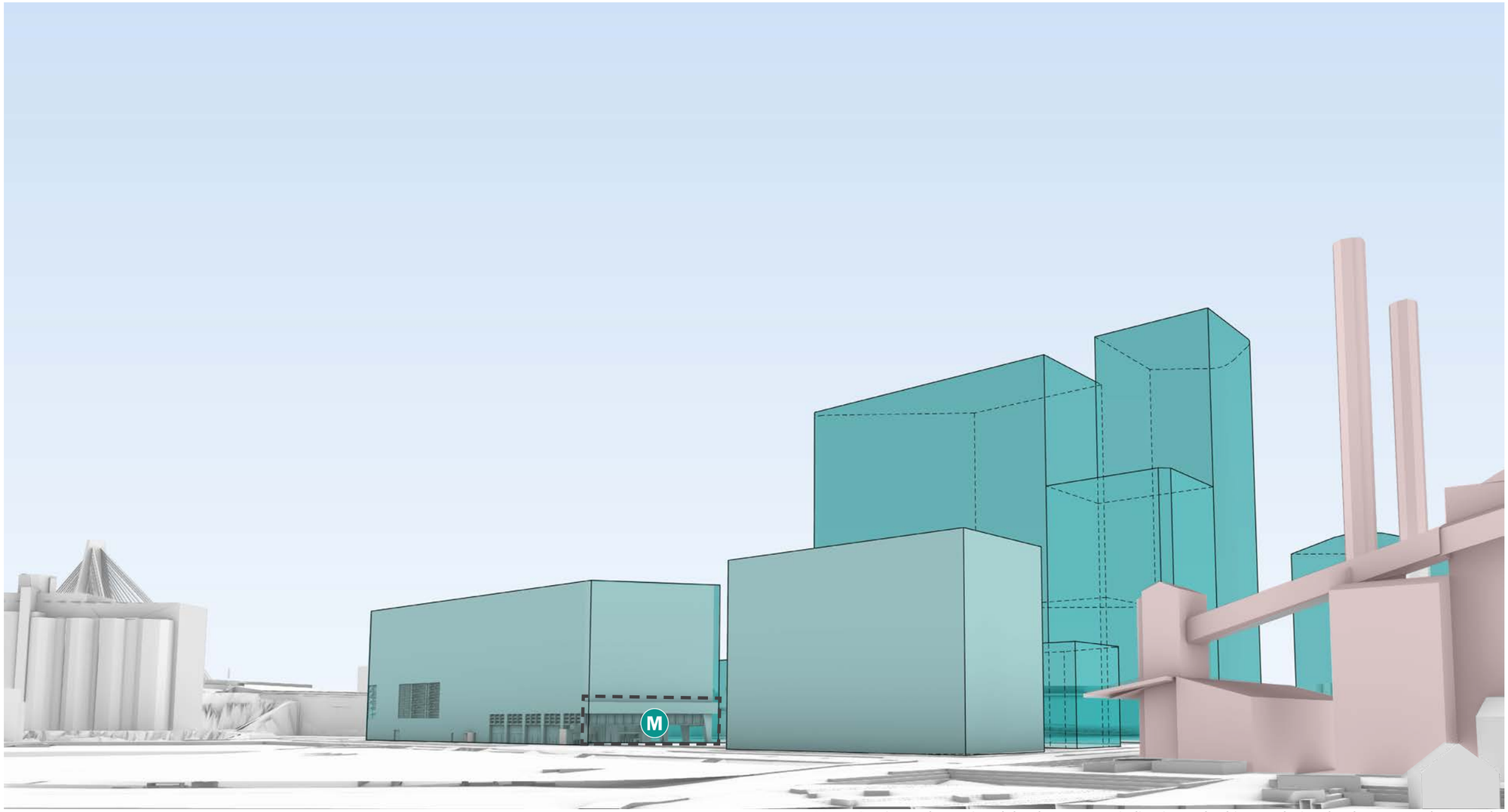


4.21.3 View towards White Bay Power Station from northern arrival

The view modelled on the diagram adjacent is a key view of the White Bay Power Station, coal loader shed and chimneys from the arrival to the Site from Robert Street to the north.

The UDF proposes that the north-south street is appropriately set back to the right of the diagram to acknowledge the significant scale of the White Bay Power Station and to provide an appropriate curtilage to these elements.

Direct views across the proposed park to The Bays station and to the White Bay Power Station, chimneys and coal loader (shown in pink) facilitate intuitive wayfinding through the Site.



Building development envelopes

White Bay Power Station, coal loader shed and chimneys

The Bays Metro station entry

Metro Station and associated development are indicative and subject to design development and approval

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Metro Station and associated development are indicative and subject to design development and approval

5.0
Public Domain Concept Plan

The Public Domain Concept Master Plan represents just one of many permutations of how the Urban Design Framework for the White Bay Power Station (and Metro) Sub-precinct can be realised.

The Public Domain Concept Master Plan represents a reference scheme that demonstrates how the project vision, and objectives and the urban design principles and parameters can be achieved whilst adhering to the Urban Design Framework.

5.0 Public Domain Concept Plan

5.1 Vision

Sydney Harbour reaches in to the Site at the head of White Bay. A relationship between land and water that has been significantly altered over time. The vision is to acknowledge the past, but plan for the future, as a station on the Sydney Metro West network affords the opportunity to provide public access to a foreshore that has long been inaccessible. The ideas, concepts and options within this Master Plan seek to position the landscape and public domain as a fundamental unifying element of the redevelopment of the waterfront into a place of culture, community, recreation, commerce and living for thousands of people day and night, weekday and weekend, winter and summer.

5.2 Public Domain Master Plan

All public open space names are placeholders with the intention that appropriate names can be determined through aboriginal and community consultation.

KEY

1. White Bay Power Station (WBPS)
2. Historic Sewer Pump Station
3. The Bays Station and Associated Development
4. Future Development
5. White Bay Power Station West Gardens
6. Cycleway
7. Southern Entry Plaza
8. Heritage and Shoreline Interpretation
9. Urban Platform - RL3.70
10. Lower Sunken Plaza - White Bay Power Station Curtilage
11. Entry/Exit into White Bay Power Station and New Boiler House 2
12. Metro Plaza
13. Raised Pedestrian Threshold
14. Central Open Lawn
15. Playground
16. Foreshore Platform
17. Landscape Shelf
18. Penstock Plaza
19. Sourwater Creek
20. Community Building and Undercroft
21. Urban Plaza

0 25 50 100

5.2.3 Focus Areas

KEY

1. White Bay Power Station Northern Curtilage
2. White Bay Power Station Eastern Curtilage
3. Southern Entry
4. White Bay Power Station West Gardens
5. Southern Development Precinct
6. Metro Park and Harbour Interface
7. Future Park
8. Robert Street Community Zone

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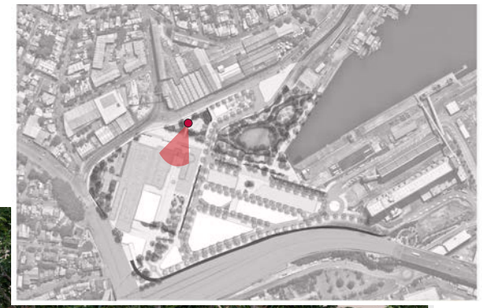
5.3
White Bay Power Station Northern Curtilage

5.0 Public Domain Concept Plan

5.3 White Bay Power Station - North Curtilage



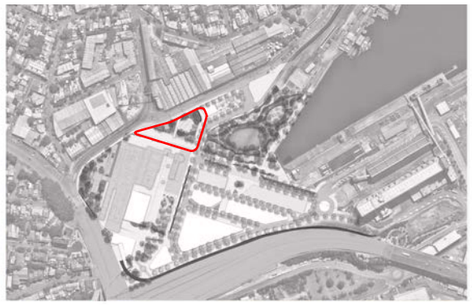
The White Bay Power Station (WBPS) Northern Curtilage proposes a new pedestrian entry from Robert Street, transitioning up and over existing stormwater infrastructure and into a generous flexible plaza space.

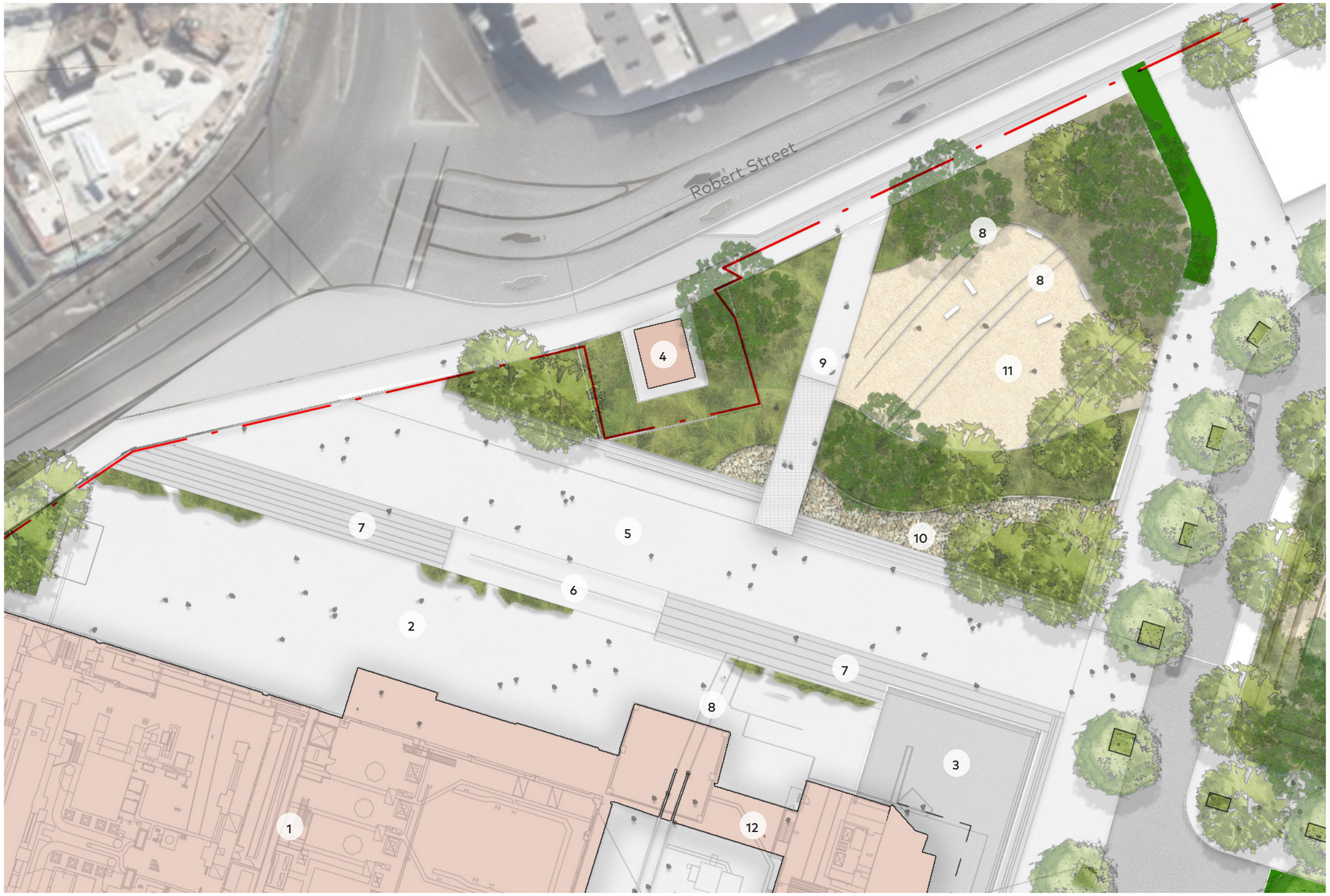
The public domain will respect the existing infrastructure surrounding the WBPS, providing significant open space to allow pedestrian movement and engagement with the built form. Upon entry, the parkland landscape and heritage fabric is intertwined, softening the strong urban frontage and providing smaller scale breakout opportunity before arrival.

Key public domain outcomes include:

- Generous equal access pedestrian walkways in east-west and north-south directions
- Strong visual connection to the White Bay Power Station - coal loader shed used to direct pedestrian movement
- Protection and enhancement of the Sewer Pump Station and surrounds
- Shaded soft sunken spaces, with endemic planting and freshwater
- Retention of existing historical rail lines

View from pedestrian walkway connecting to upper urban platform. Clear visual connections to the White Bay Power Station northern curtilage and eastern plaza are maintained with vertical chimneys framing the entrance.

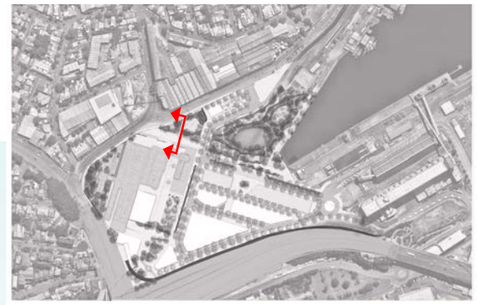


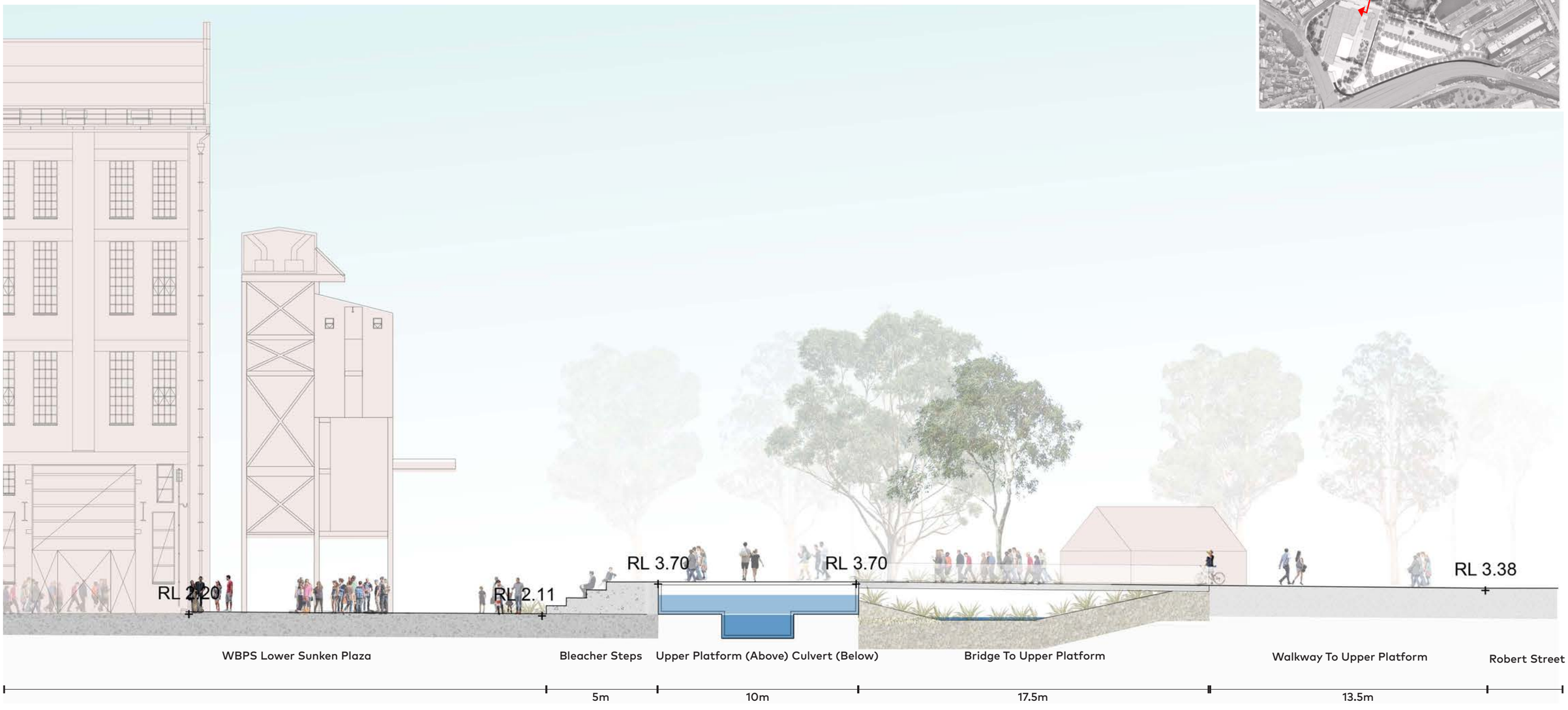


KEY

1. White Bay Power Station
2. White Bay Power Station Lower Sunken Plaza - RL 2.50
3. Existing Coal Loader Curtilage
4. Historic Sewer Pump Station
5. Upper Urban Platform RL 3.70
6. Switch-back walkway 1:20
7. Bleacher Seating and Stairs
8. Rail Line Interpretation
9. Access to Urban Platform from Robert Street
10. Freshwater Bioretention
11. Gravel Plaza with Native Planting
12. Coal Loader Shed Utilised to Direct Pedestrian Movement

5.3 White Bay Power Station - North Curtilage





The section illustrates the pedestrian walkway that connects Robert Street to the urban platform. Stair and walkway access to the lower sunken plaza provides direct access to the WBPS curtilage.

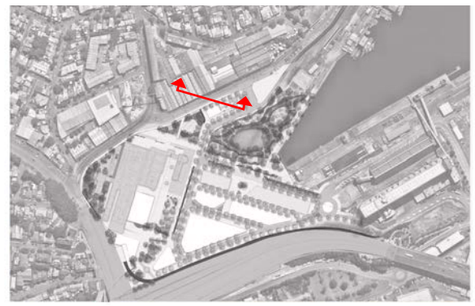
0 2 4 8

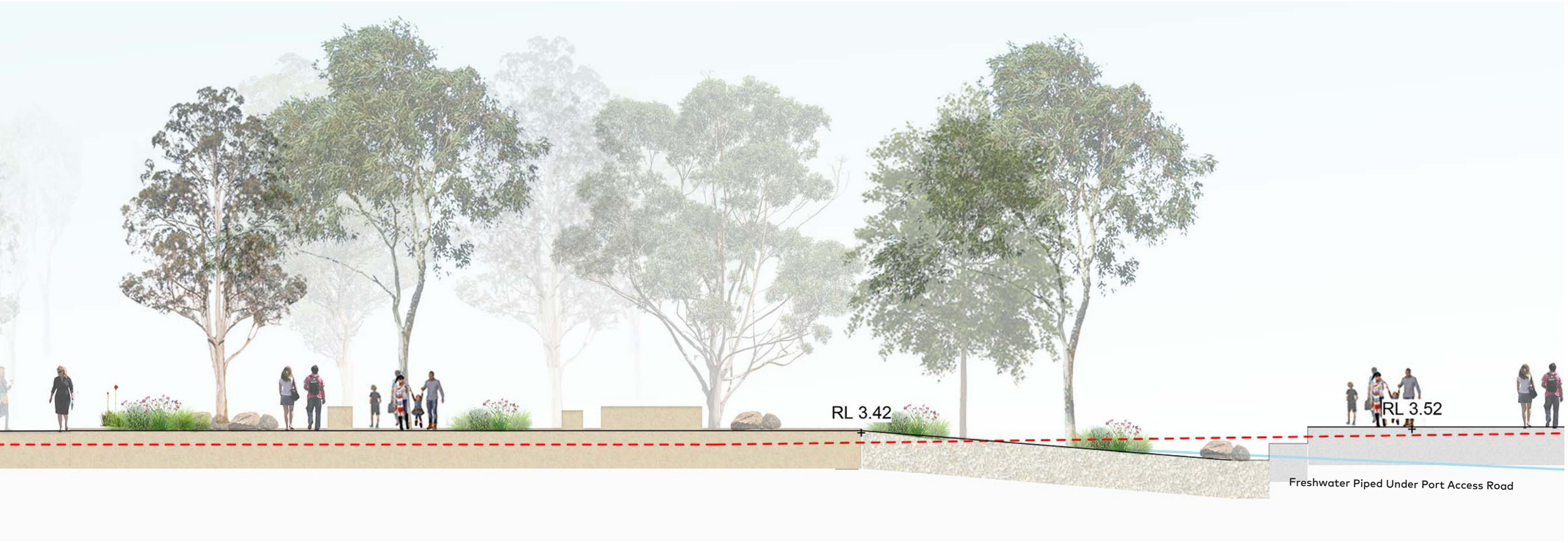
View looking west over the urban platform and WBPS lower sunken plaza. A clear visual contrast is formed between the industrial heritage of the WBPS and beginning of freshwater bioretention.

5.0 Public Domain Concept Plan

5.5. White Bay Power Station - North Curtilage

The section illustrates the interfaces of the sunken bioretention areas. These sunken areas treat overland flow, prior to being piped into the Future Park through the N/S Street. The Historic Sewer Pump Station is given adequate curtilage for servicing, with the remainder of the space being softened with native planting.





Gravel plaza amongst Native Planting

23m

Freshwater Bioretention

10m

Pedestrian Walkway

6m

0 1 2 4

turf COX

5.4
White Bay Power Station Eastern Curtilage

Metro Station and associated development are indicative and subject to design development and approval

5.4 White Bay Power Station - East

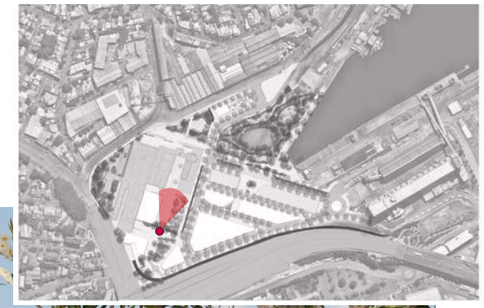
The public domain serves the surrounding New Boiler House and entry to the White Bay Power Station Eastern Curtilage. Positioned in direct alignment with the Metro Station, the sunken plaza accommodates the confluence of movement when travelling to and from the WBPS and should provide an extended breakout space for amenity and events.

The significant vertical infrastructure such as the Coal-loader Shed and chimneys are retained, becoming strong landmark features, establishing a connection for users with the existing heritage of the precinct.

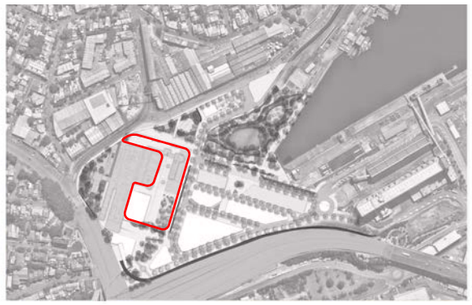
The southern portion of plaza is comprised of interpretive overlays from past histories surrounding the WBPS. The pre-colonial shoreline is reinstated, with a shallow wetland surrounded by the tracks of historical rail lines and built form footprints.

Key public domain outcomes include:

- Key visual connections north-south
- Equal access walkways
- Opportunity for event and amenity in plaza, with generous curtilage on the east of White Bay Power Station
- Retention of existing historical rail lines
- Expression and interpretation of the original shoreline



View looking north towards Robert Street showing Interpretive overlays such as rail tracks, building footprints and the original shoreline.



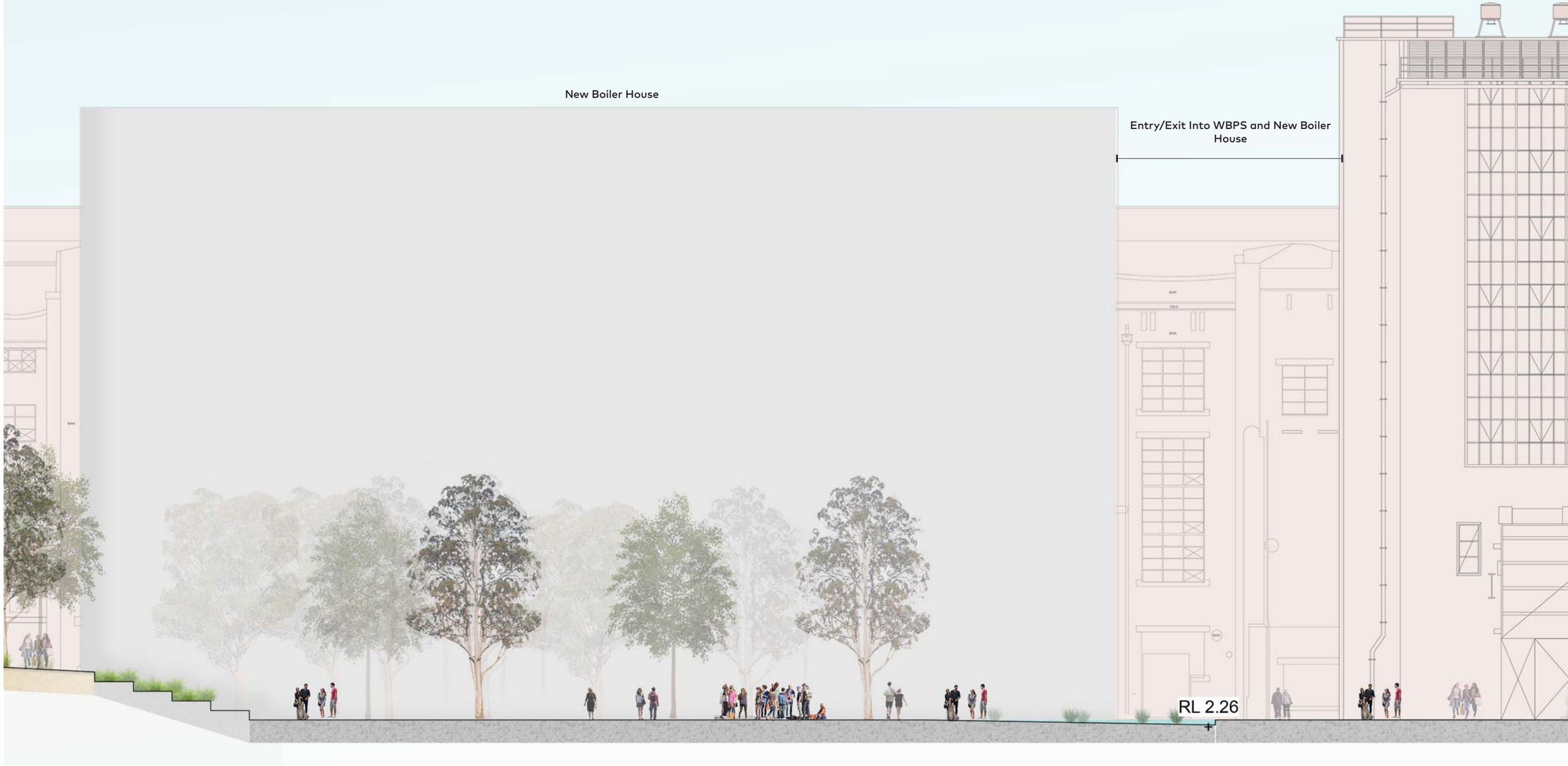
KEY

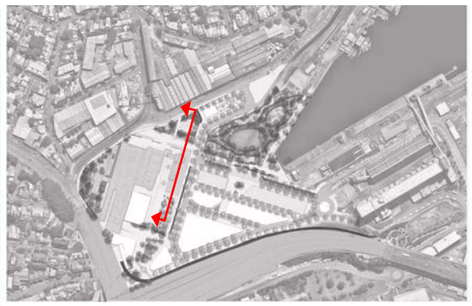
1. White Bay Power Station
2. Future Development
3. Entry/Exit Into White Bay Power Station and Proposed Building
4. Lower Sunken Plaza
5. Shoreline Interpretation With Wetland
6. Interpretation Of Historic Built Form
7. Walkway - Access From North-South Street
8. Retained Coal Load Surrounds
9. White Bay Power Station Chimneys
10. Bleacher Steps
11. Stair Access From Southern Entry to Lower Sunken Plaza
12. Rail Line Interpretation

0 10 20 40

5.4 White Bay Power Station - Eastern Curtilage

The section illustrates the relationship between the sunken plaza and the industrial heritage of the WBPS. The strong scale of the facade frames the space, enhancing the urban character further embedded in the interpretive elements on the groundplane.





RL 2.52

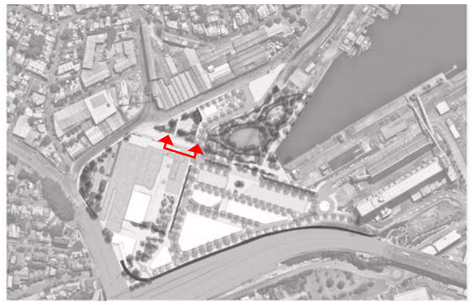
Lower Sunken Plaza

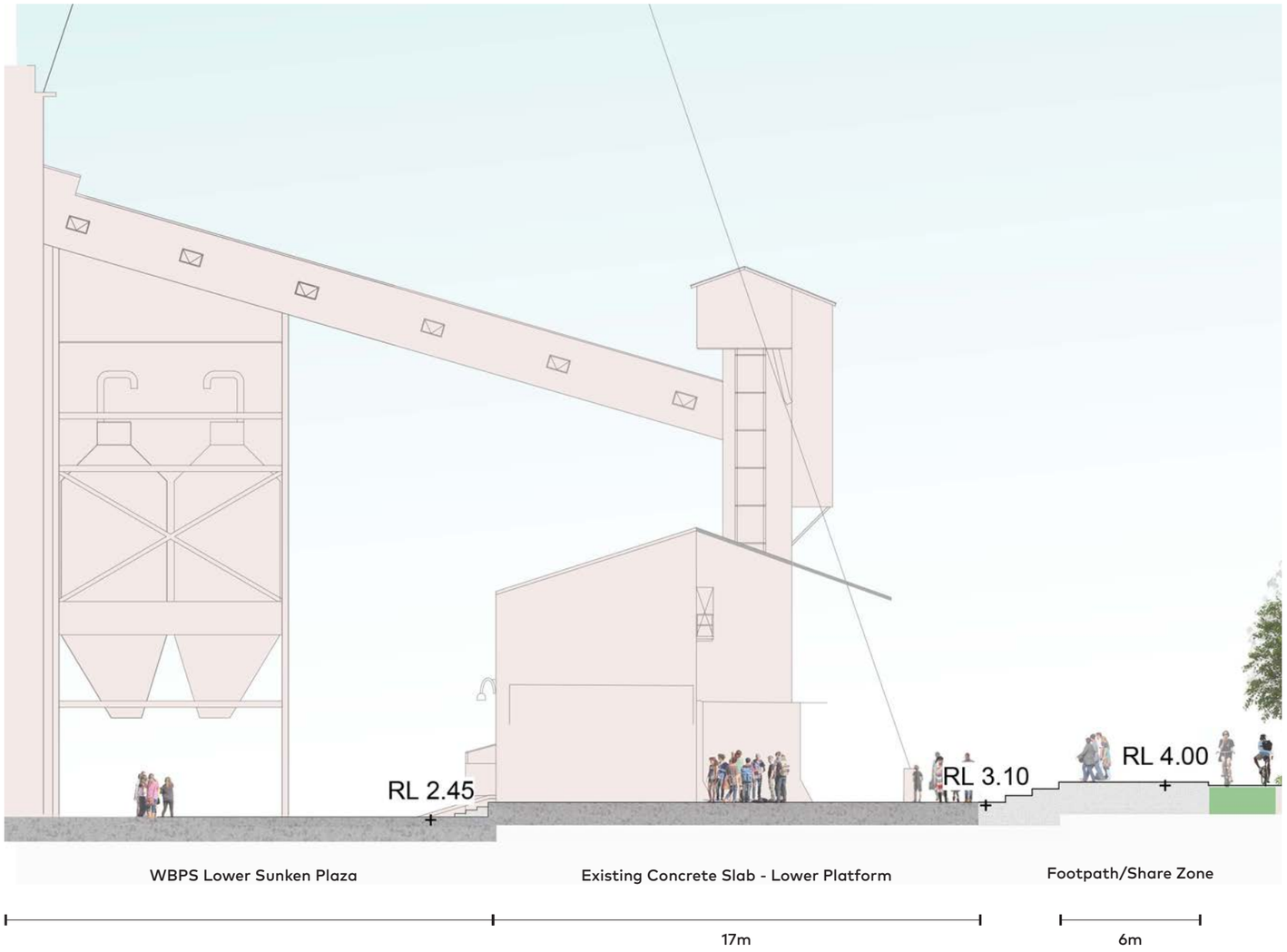
Access To Upper Platform

85m

0 2 4 8

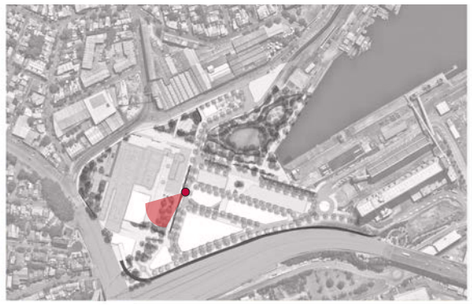
5.4 White Bay Power Station - Eastern Curtilage





The section shows the retention of the coal loader shed and its associated concrete platform and how it will interface with the new public domain.

0 2 4 8



View looking south showing interpretation of the shoreline and other elements on the groundplane.

5.5
Southern Entry

Metro Station and associated development
are indicative and subject to design development

5.5 Southern Entry

The rich offering of open space at the southern end of the precinct known as the southern entry provides a key node of activation and public open space that will draw people into the precinct from the Rozelle Railwayds Parkland and Anzac Bridge Cycleway.

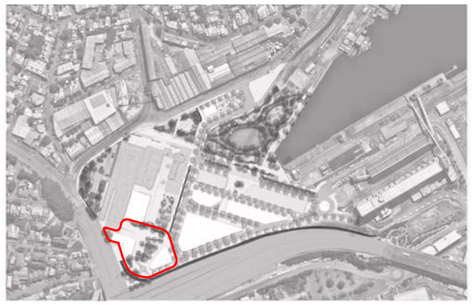
The entry is anchored by the existing heritage penstock, with surrounding landscape spaces organized to allow for flexible movement towards the White Bay Power Station Eastern Curtilage, Metro Station and proposed mixed use development.

The public domain offers smaller, intimate spaces for dwelling whilst accommodating the functional uses of the surrounding infrastructure and potential Intake Substation (ISS).

Key public domain outcomes include:

- Key connection point to Bays Precinct and Greater Sydney
- Visual connection to White Bay Power Station
- Fine grain open lawn spaces
- Pockets of endemic planting
- Penstock and cooling tunnels highlighted as historical interpretative elements
- Space accommodates servicing requirements of White Bay Power Station and ISS

View looking north from the southern entry/Rozelle railyards arrival. Clear views to the White Bay Power Station, Silos and the Anzac Bridge are maintained on arrival.

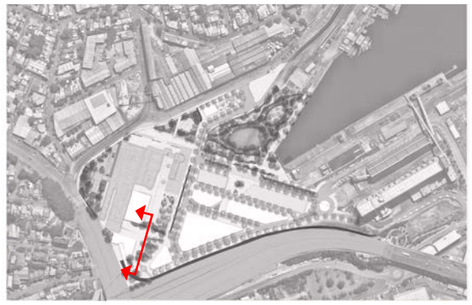


KEY

1. Penstock
2. Cooling Tunnel Interpretation
3. ISS Building
4. Future Development
5. Passive Open Lawn Space
6. Entry Garden and Lawn
7. Cycleway
8. Connection To Anzac Bridge Cycleway
9. Pedestrian Access To Victoria Road
10. Native Garden

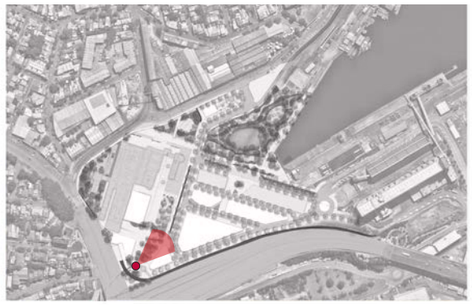
0 5 10 20

5.5 Southern Entry



The section shows the collection of small green spaces upon entry from the south.
Intake Substation indicative only and subject to design development by Sydney Metro.

0 2 4 8



View looking north amongst green spaces in the southern entry. A mixed palette of native planting and heritage interpretation are expressed, interwoven by pathways for users to transition through to the White Bay Power Station.

5.6
White Bay Power Station West Gardens

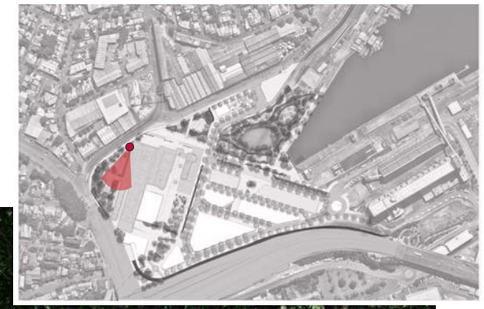
5.6 White Bay Power Station West Gardens

The Western Gardens embraces the industrial nature of the White Bay Power Station surrounds, creating unique plant communities that are intertwined with the relics of the existing infrastructure.

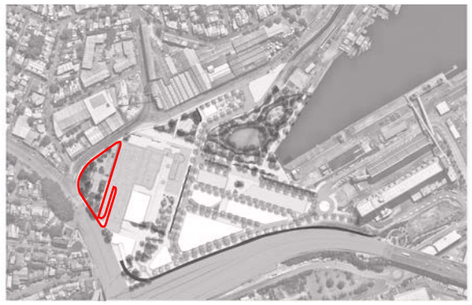
A balance of passive movement zones and intimate fine grain landscape rooms are designed, responding to the varying level changes between Robert Street, Victoria Road and the WBPS western elevation. Each garden encourages increased biodiversity, responding to the local microclimates existing within the region and delivering a new landscape unique to the character of the WBPS.

Key public domain outcomes include:

- Integrated pedestrian movement into heritage fabric
- Fine grain outdoor rooms
- Shade from western sun by endemic tree planting
- Retention and reuse of heritage elements



View looking South along the existing sub-station gardens showing the retention of the existing walls and the underpass railway tracks. People can be seen exploring over several levels, below along the sunken gardens, and above along the existing concrete slab of the West Plaza.

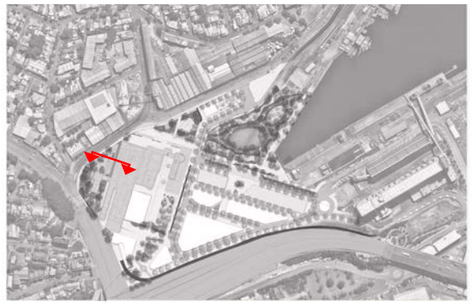


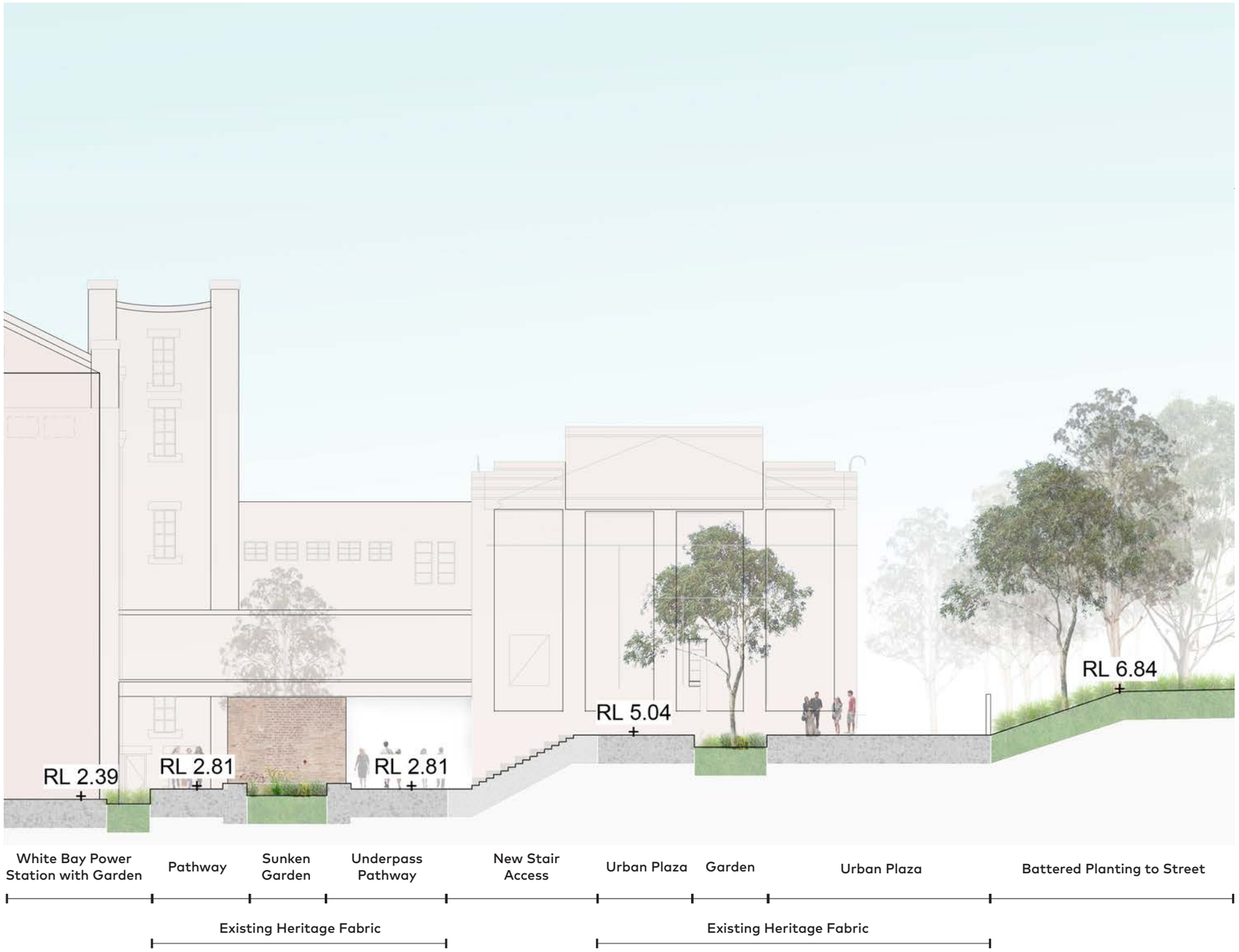
KEY

1. White Bay Power Station
2. Substation Gardens Between Existing Walls - Fine Grain Rooms
3. Existing Walls
4. West Plaza - Retaining And Interpreting Existing Concrete Slab
5. Outcrop Garden - Sloped, Rugged and Robust
6. Gully Garden
7. Bridge Connection From Victoria Road to White Bay Power Station Public Entry
8. White Bay Power Station Control Room
9. Greening Against White Bay Power Station
10. Entry From Robert Street

0 10 20 40

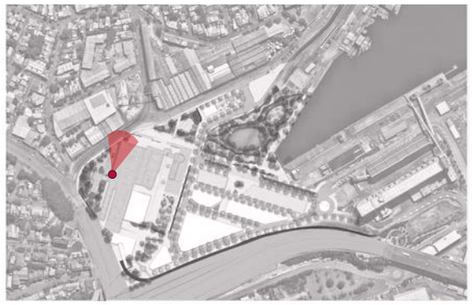
5.6 White Bay Power Station West Gardens





The section articulates the various tiers of landscape intertwined with the existing heritage conditions from the White Bay Power Station. An opportunity to explore the industrial, material character of the existing environment and develop unique garden spaces.

0 2 4 8



View looking North along the existing sub-station gardens showing the retention of the existing walls and the underpass railway tracks. Planting is expressed within the existing forms of the WBPS Western surrounds.

5.7
Southern
Development Precinct

Metro Station and associated development are indicative and subject to design development

5.0 Public Domain Concept Plan

5.7 Southern Development Precinct

The Southern Development Precinct promotes pedestrian movement with porous built form allowing for movement in both north-south and east-west directions.

Streets are tight with a priority on greening and pedestrians moving around and enjoying the precinct. Walking and cycling also has high priority with cycleways and shared zones provided in key N/S & E/W directions.

Key public domain outcomes include:

- Generous pedestrian movement spaces
- Dense canopy
- Material palette that mitigates the urban heat island effect, creating pleasant micro climates
- Access to multiple forms of public transport
- Maintained views to the harbour bridge/ foreshore

The streets layout promotes access and movement, prioritising pedestrians through generous shareways and plaza spaces. Openings between built form allow view corridors to the foreshore.

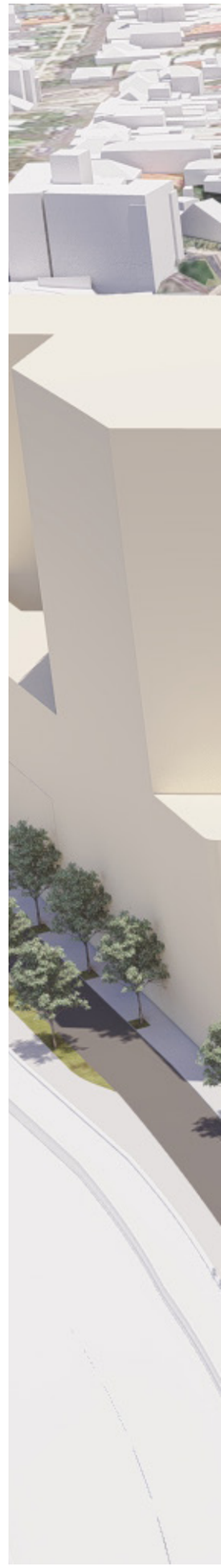
KEY

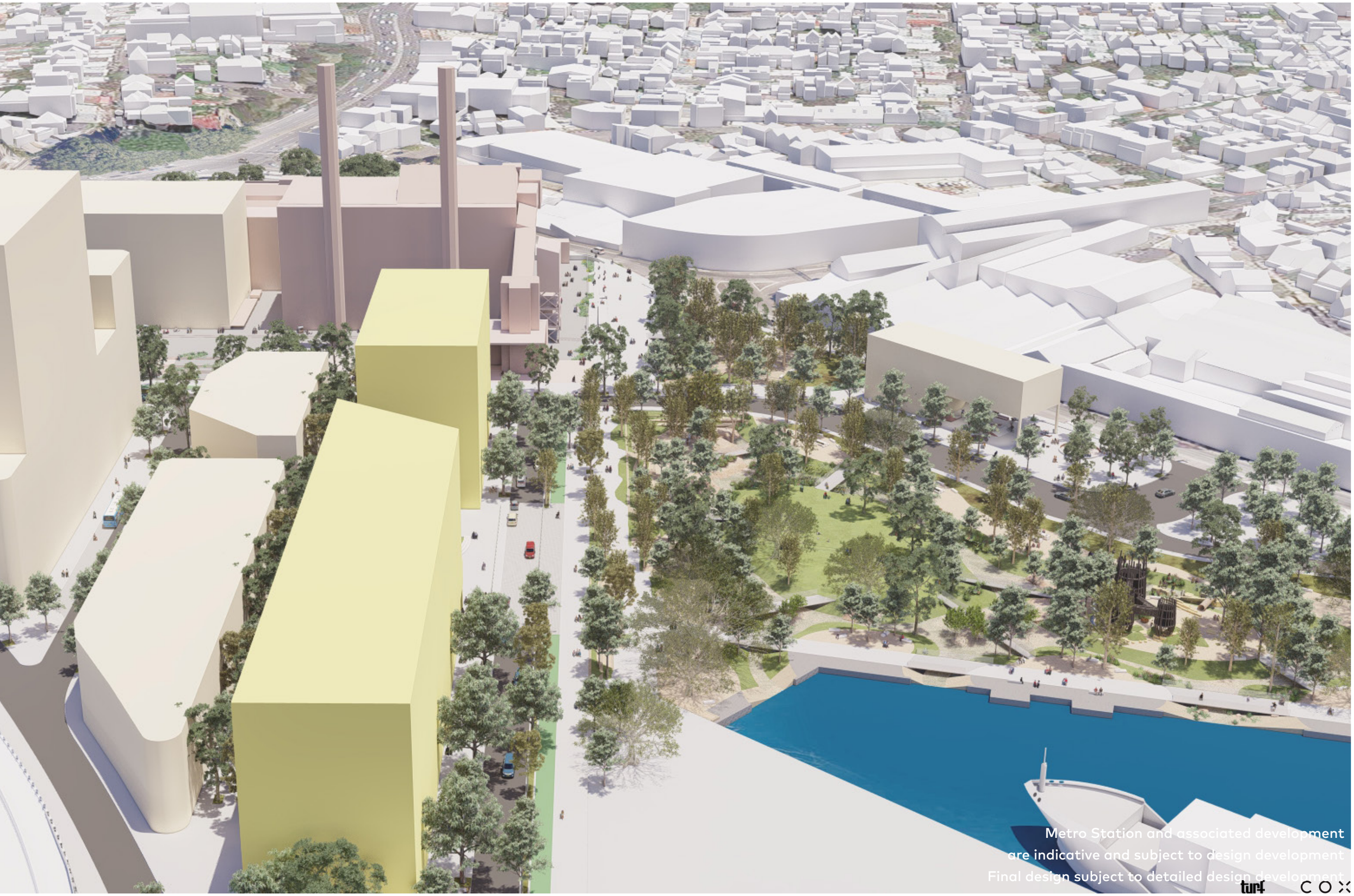
1. Future Development
2. Kerbside Bus Stop
3. Pedestrian Plaza
4. Pedestrian Share Zone
5. Connection To Anzac Bridge Cycleway

***Final design subject to detailed design development**

0 10 20 40

5.8
Metro Park and Harbour Interface





Metro Station and associated development
are indicative and subject to design development
Final design subject to detailed design development

5.8 Metro Park and Harbour Interface

The Metro station is positioned at the heart of the Bays West Precinct linking people to open space, the White Bay Power Station and the surrounding White Bay Precinct. The North Metro Station interface prioritises people and safety, offering a flexible plaza that can accommodate every day and event use.

A generous open plaza encourages users to transit through from all directions, promoting exceptional user experience that is enhanced by considered material choices that reflect the renewed heritage character of the surrounding precinct as well as integrated urban furniture that aids movement.

Key public domain outcomes include:

- Pedestrian movement between the Metro Station and Future Park is prioritised with a raised pedestrian threshold to slow vehicles approaching the metro arrival
- A strong visual connection to the White Bay Power Station, Future Park and White Bay is established at the entry/exit point of the eastern metro building
- Informal and scattered tree planting provides a consistent canopy, whilst maintaining a porous public domain for pedestrian movement in key areas

View looking East towards the Silos. The frontage of the metro promotes pedestrian movement and access to Future Park and WBPS with a large raised crossing. Bollards and landscape elements also improve safety and signalise caution to motorists and pedestrians alike.

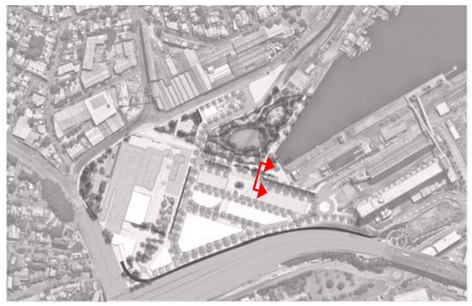
KEY

1. The Bays Station and Associated Development
2. Entry/Exit From The Bays Station
3. Metro Open Space (Placeholder Design - To Be Delivered By Metro)
4. Raised Pedestrian Threshold
5. East/West Cycleway
6. Walkway Into Future Park
7. Stair Access Into Future Park
8. Pedestrian Share Zone
9. Nature Strip

Primary Street out the front of Metro Station

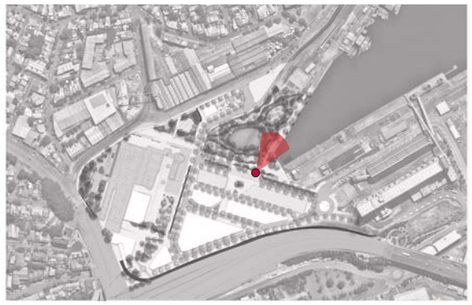
0 10 20 40

5.8 Metro Park and Harbour Interface



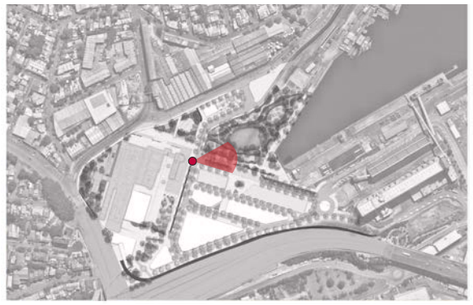
The sections highlights the pedestrian movement via the raised threshold from the Metro entry into the Future Park. Clear site lines guide users down the stairs and or walkway towards a lower gravel plaza.

0 2 4 8

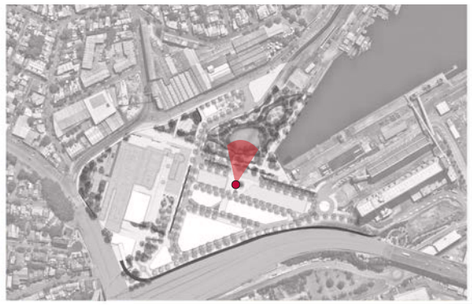


View looking north from the Metro to the foreshore walk. Users have an immediate connection with the water and parklands, with direct access across the raised pedestrian threshold.

5.8 Metro Park and Harbour Interface



View looking east towards the Metro . A strong canopy of street trees shades the pedestrian plaza and park entry, guiding users towards the metro station.



View looking north towards Future Park highlights the key stair access from the upper to lower plaza.

5.9
Future Park

Metro Station and associated development
are indicative and subject to design development

5.0 Public Domain Concept Plan

5.9 Future Park

The Future Park celebrates a songline of 5 Islands surrounded by a shallow sourwater creek system. The park is set down from the Metro and Road surrounds to enhance the immersion in Country and tell the story of the water, as it flows from 'fresh to sour to salt'.

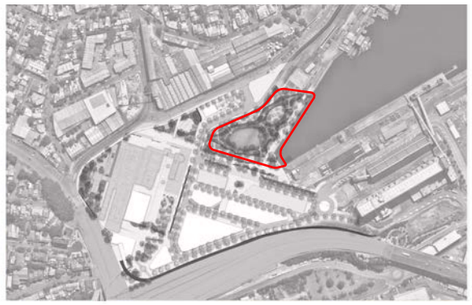
Three foreshore islands with bridge connections allow users to move along the White Bay foreshore while a large open lawn island and a nature play island facilitate significant activation of the park.

The generous open lawn Island provides a key foreshore recreation space that complimenting the programmed open space at the Rozelle Parklands. An all inclusive nature play island enables all users to play regardless of age, ability or cultural background. The landscape shelf connects users from the broader precinct to the park. Barbecuing, picnic facilities and seating are integrated into nooks and under trees.

Key public domain outcomes include:

- Equal access pedestrian movement into and throughout the park
- Embedding Country into the land through outdoor learning experiences
- District level playground celebrating the local natural environment
- Diverse series of open green spaces that promote passive and active uses

View looking east through the open lawn of the Future Park. The foreground articulates the native planting palette, including Melaleucas and Eucalypts that compliment the sandstone geology.



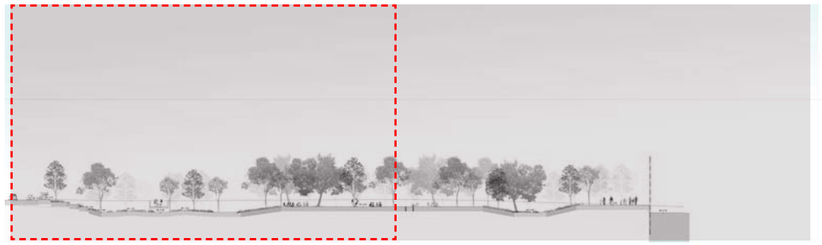
1. Open Lawn
2. Nature Play Island
3. Landscape Shelf - Picnic And BBQ
4. Gravel Plaza
5. Sandstone Bleachers and Steps From Metro
6. Native Garden Pockets Over Bleachers
7. Rail Line Interpretation
8. Pedestrian Bridges
9. Native Planting Buffer Surrounding Islands
10. Bioretention - Sourwater Creek
11. Mangrove Islands
12. Entry From Port Access Road
13. Urban Platform Along Foreshore
14. Islands With Breakout Space
15. Walkway with access into the Future Park

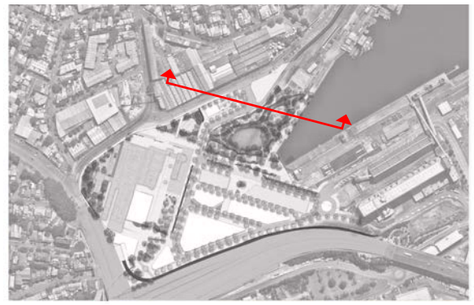
0 10 20 40

5.0 Public Domain Concept Plan

5.9 Future Park

The transect illustrates access into the Future Park from the street, transitioning from the upper levels to the sunken gravel plaza. A large passive lawn space is central to the park, providing an enclosed retreat amongst native trees and planting.





Sourwater Creek | Native Planting | Open Lawn (continued)

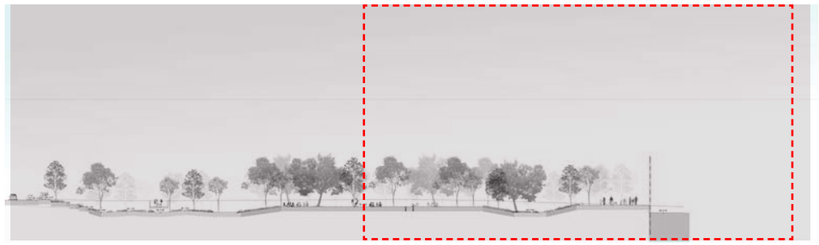
60m

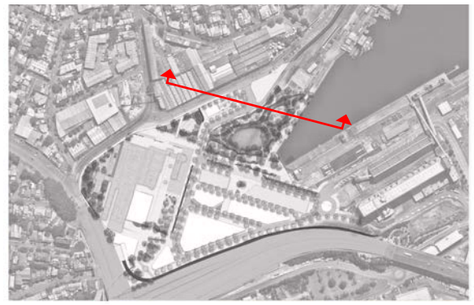
0 1 2 4

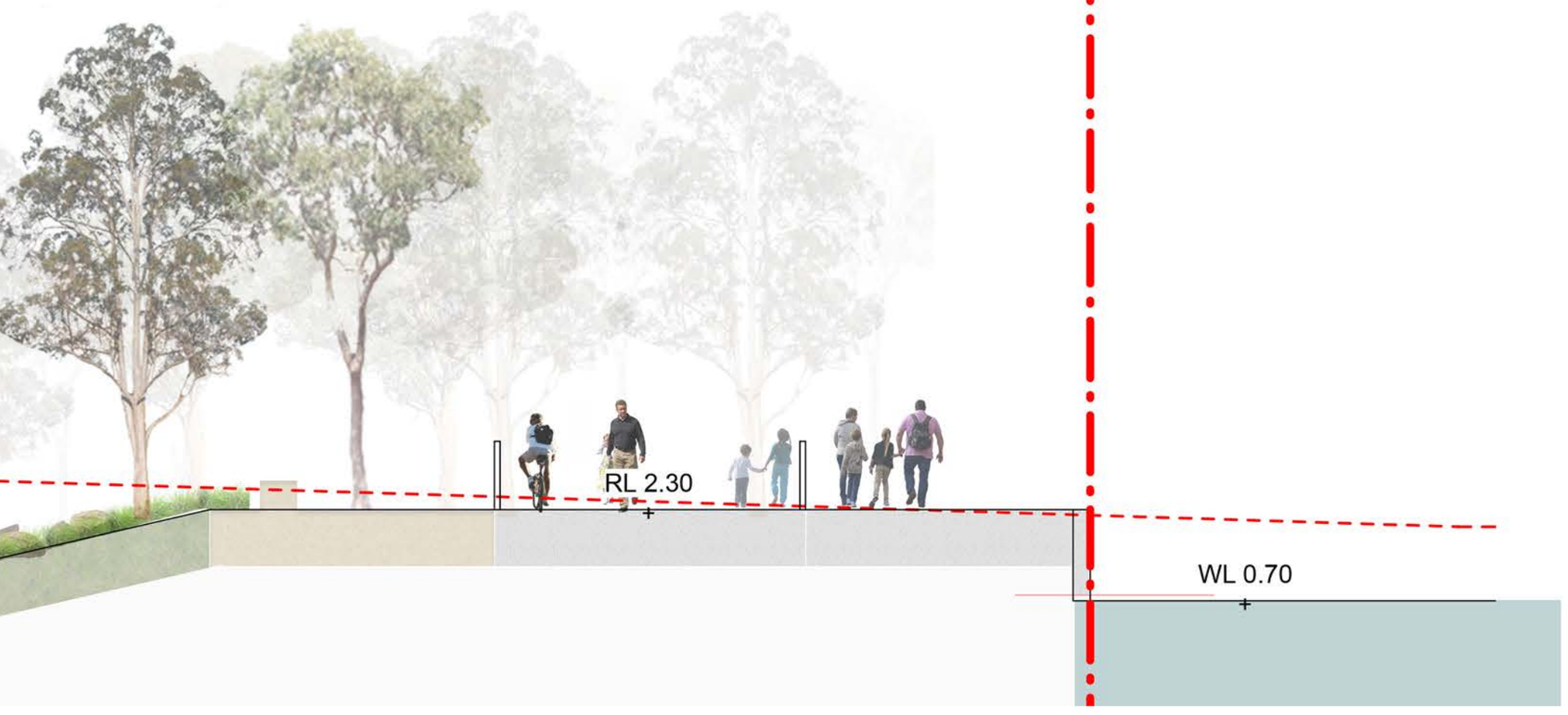
5.0 Concept Master Plan

5.9 Future Park

The open lawn continues through to the Bays foreshore, with pedestrian bridges connecting users from islands into the central space. At the edge, an urban platform stretches alongside the bay visually and physically linking users from Robert Street to the Metro.







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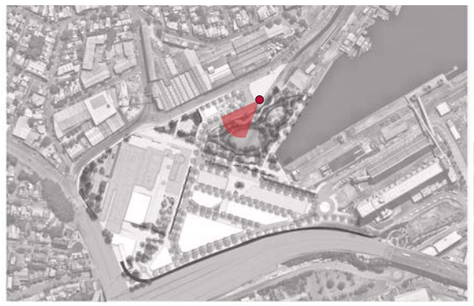
turf COX



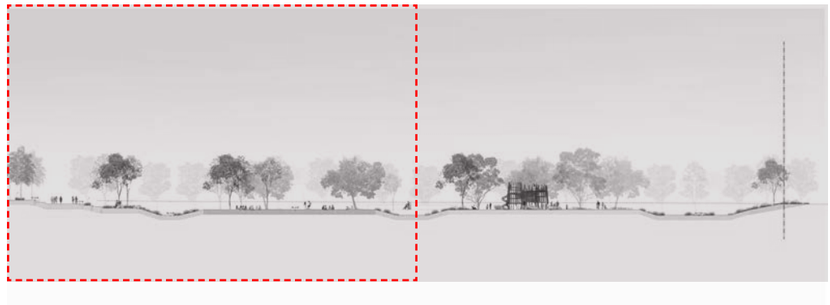
The park promotes areas of gathering and picnic, with small BBQ zones within the gravel plaza. Views into the lawn space enclose users amongst the greenery.

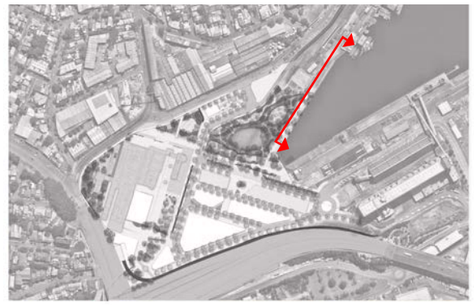
View looking south towards the Metro, articulating the Bay foreshore and pedestrian movement corridor.

5.0 Concept Master Plan

5.9 Future Park

The section illustrates the north- south connection from the metro towards the central green space. Bleacher seating transitions down into the gravel plaza with native mixes of shrubs softening the urban streetscape.





RL 2.00

Open Lawn

Pedestrian Bridge over Sourwater Creek

40m

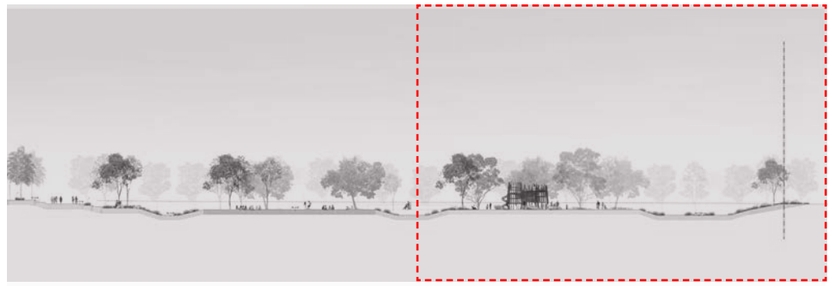
0 1 2 4

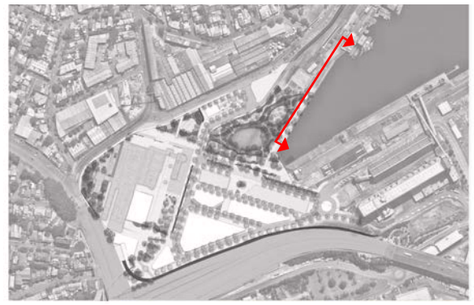
turf COX

5.0 Concept Master Plan

5.9 Future Park

The north- east island promotes active play with opportunity for a unique playground structure for all users. Reflecting on the local endemic ecologies and geology, the space incorporates nature and wild play.





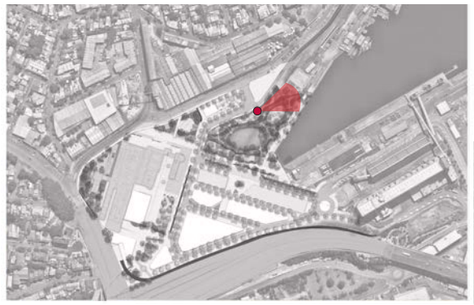
Sourwater Creek - with Native Planting Islands

30m

0 1 2 4

turf COX

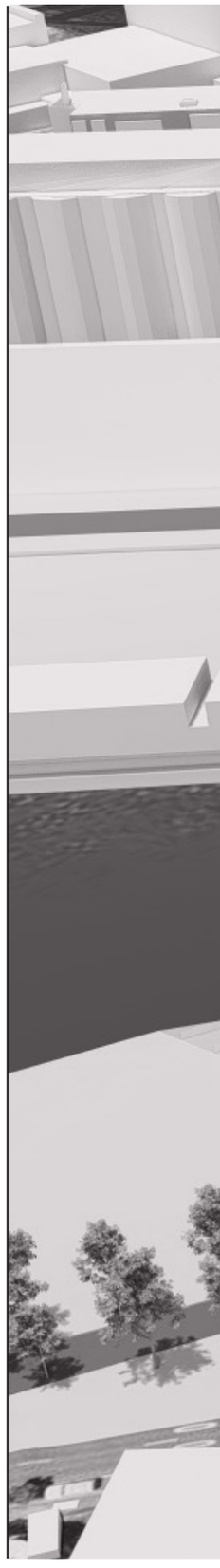
5.9 Future Park



The playground offers amenity and play for all users complimenting the wild - native planting character of the islands. Pedestrian access via bridges connects users from the central lawn and gravel plazas.

The view looking east illustrates the pedestrian walkway that connects users from the upper platform of the metro towards the Future Park and foreshore.

5.10
Robert Street
Community Zone



Metro Station and associated development
are indicative and subject to design development

5.0 Concept Master Plan

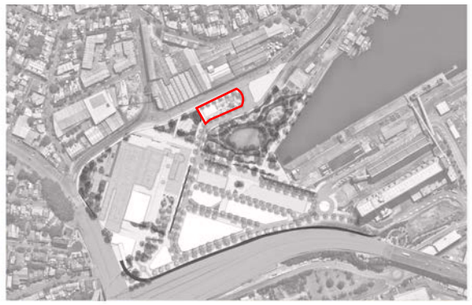
5.10 Robert Street Community Zone

Robert Street Community Zone is located between Robert Street and the Future Park. The Heritage Penstock is unearthed in the plaza, with the cooling tunnel beneath interpreted in the ground plane. The adjacent community building is utilised, offering a unique undercroft zone for multi-use sport and active recreation amongst the industrial heritage fabric of the site.

Key public domain outcomes include:

- Pedestrian plaza space
- Visual connection between WBPS, Robert Street warehousing, Future Park and Metro.
- Community hub
- Enlivened undercroft space
- Strong sense of endemic canopy
- Retention of heritage elements

View looking south along Port Access Road highlighting the penstock plaza and activated urban undercroft.
The open plaza is anchored by the existing penstock.



KEY

1. Penstock
2. Cooling Tunnel Interpretation
3. Plaza With Integrated Seating And Planting
4. Undercroft Multi- Sport Space
5. Commercial/Community Building

0 10 20 40

5.10 Robert Street
Community Zone

The section captures the transition from penstock plaza into the Future Park. Equal access ensures movement is seamless when entering the precinct.

0 2 4 8

View when entering from Robert Street. The penstock is highlighted upon approach, embedded amongst the rich ecology of the Future Park. Users easily transition through the space finding moments to pause and engage with the surrounding context.

Appendices

Appendices

Planning Control Maps

This appendix provides recommended planning control maps which would ensure the realisation of the vision proposed in the Master Plan.

The following pages contain recommended planning control maps for Bays West Stage 1 Master Plan, this includes :

- Land Application Map
- Identification of Key Sites
- Land Use Zoning
- Height of Buildings
- Floor Space Ratios
- Heritage Items
- Proposed Solar Access to Public Open Space.

Land Application Map

The White Bay Power Station (and Metro) Sub-precinct has an area of approximately 93,000m² and is bounded on the north by Robert Street and the intersection of Mullens Street, Victoria Road to the west, City West Link to the south and Glebe Island to the east.

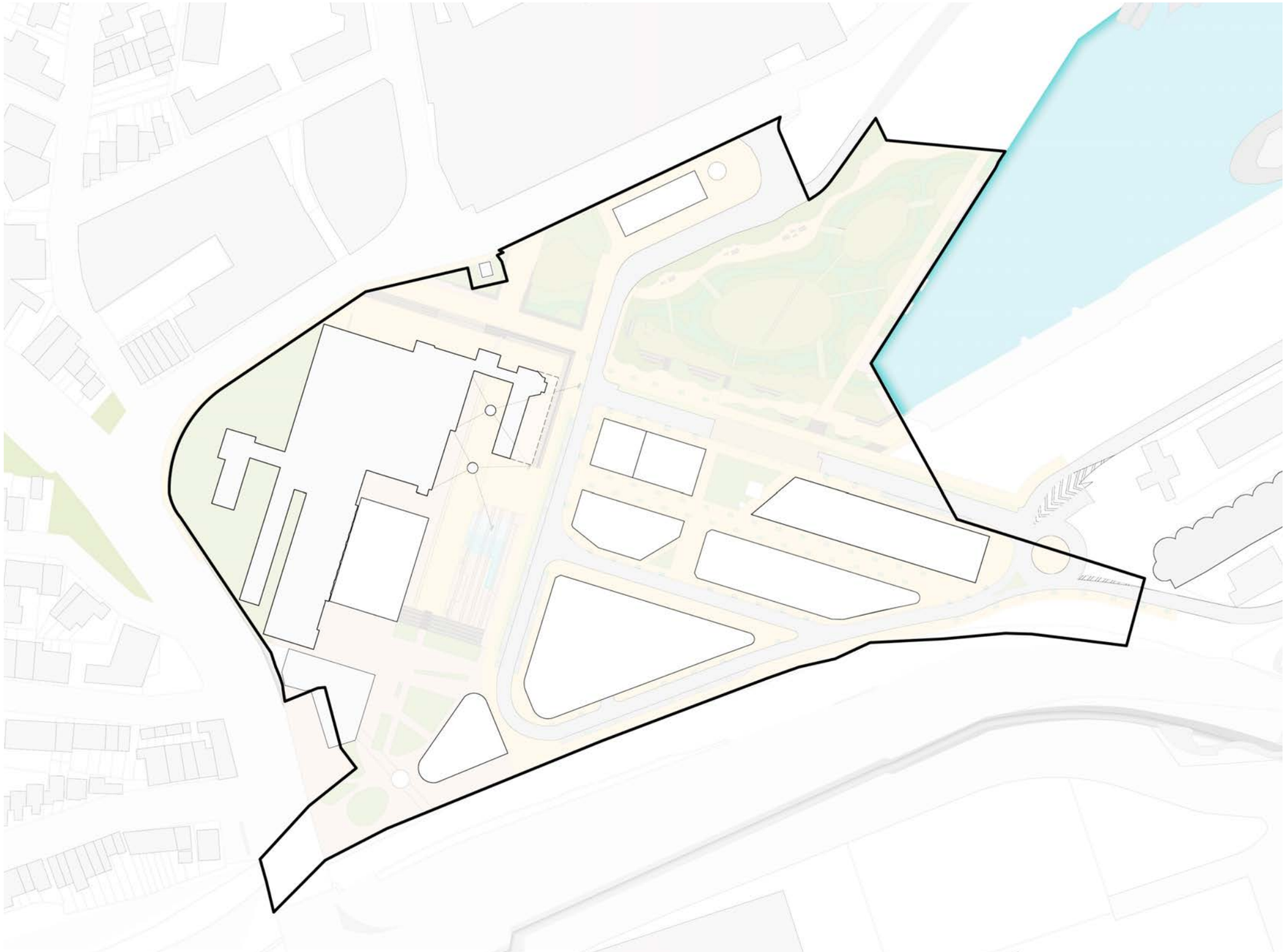


Figure 165: Land Application Map

Planning Control Maps

Identification of Key Sites

The key sites of White Bay Power Station (and Metro) Sub-precinct include:

- Site A: Area encompassing the Sydney Metro West Station and Associated Development.
- Site B: Area encompassing the southern development parcels.
- Site C: Area encompassing the White Bay Power Station, Boiler House and Robert Street Community/Commercial development.
- Site D: Future Park.

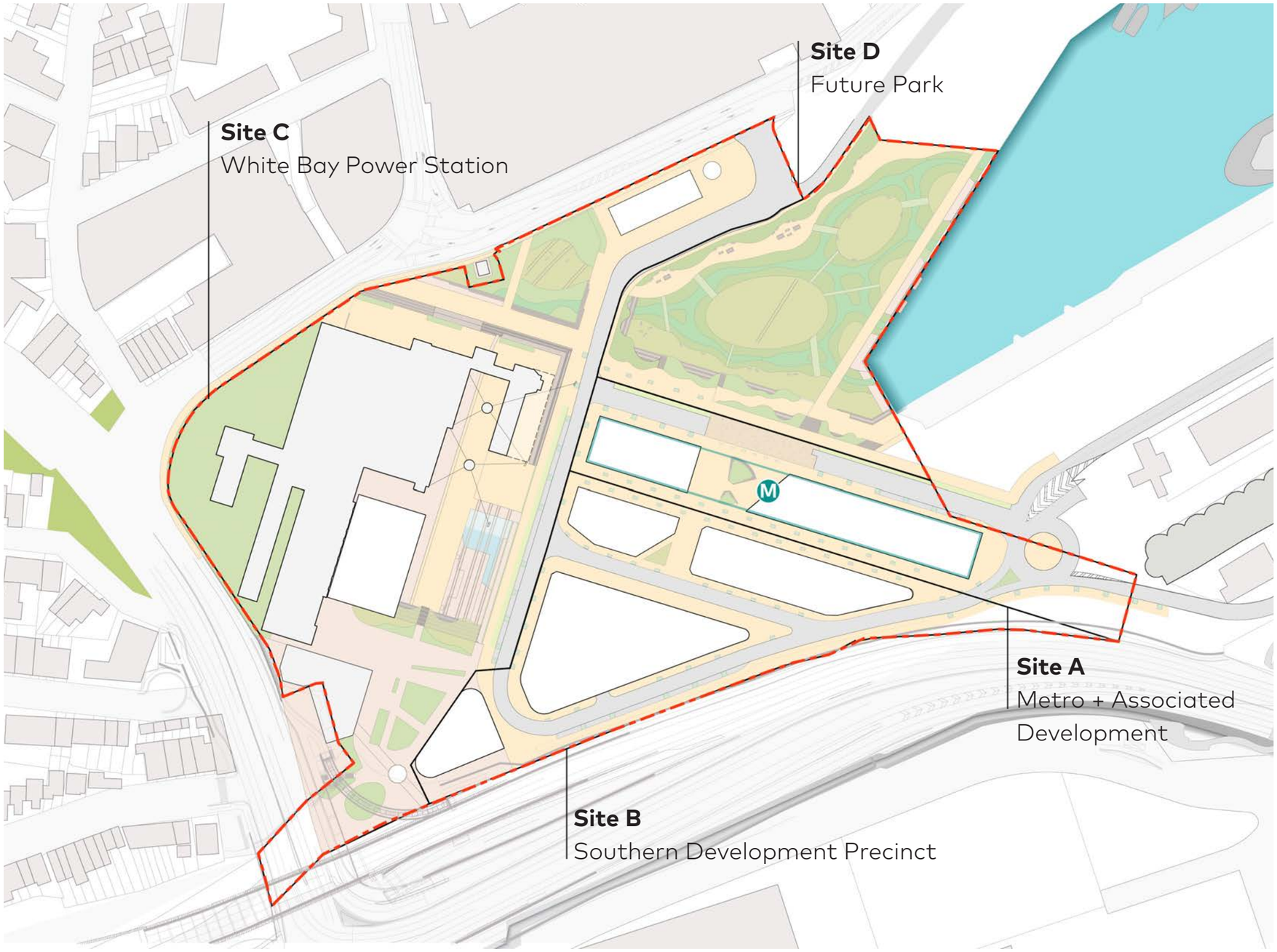


Figure 166: Key Sites

Land Use Zoning

The proposal for rezoning has been developed based on Bays West Place Strategy and Bays West Master Plan. The rezoning of White Bay Power Station (and Metro) Sub-precinct will include four zones and include:

- Special Use – SP1: Area encompassing the White Bay Power Station and open space curtilage immediately surrounding.
- Public Recreation - RE1: Area encompassing the open space northeast of the Power Station and north of the Sydney Metro West station box and including foreshore along White Bay.
- Commercial Core – E2: Area encompassing the Sydney Metro West station box and commercial core.
- Mixed Use – MU1: Area encompassing the southern development parcels.

Figure 167: Zoning

Appendices

Planning Control Maps

Height of Buildings

The height of buildings for White Bay Power Station (and Metro) Sub-precinct include:

- The Bays Metro Station and Associated Development are 36m (8 storeys).
- Development south of the Bays Metro Station is 20m (4 storeys).
- Southern development parcels are 36-104m (8-25 storeys).
- Boiler House is 36m (8 storeys).
- Development along Robert Street is 20m (4 storeys).
- Future Park zoning is 6m.

Figure 168: Height of Building

Floor Space Ratios

The Floor Space Ratios for White Bay Power Station (and Metro) Sub-precinct include:

- The Bays Metro Station and Associated Development is 1.5:1.
- Development south of the Bays Metro Station is 1.17:1.
- Southern development parcel is 4.4:1.

Figure 169: Floor Space Ratio

Planning Control Maps

Heritage Items

The following heritage items are within the White Bay Power Station heritage listing boundary:

- White Bay Power Station
- Northern Penstock
- Southern Penstock

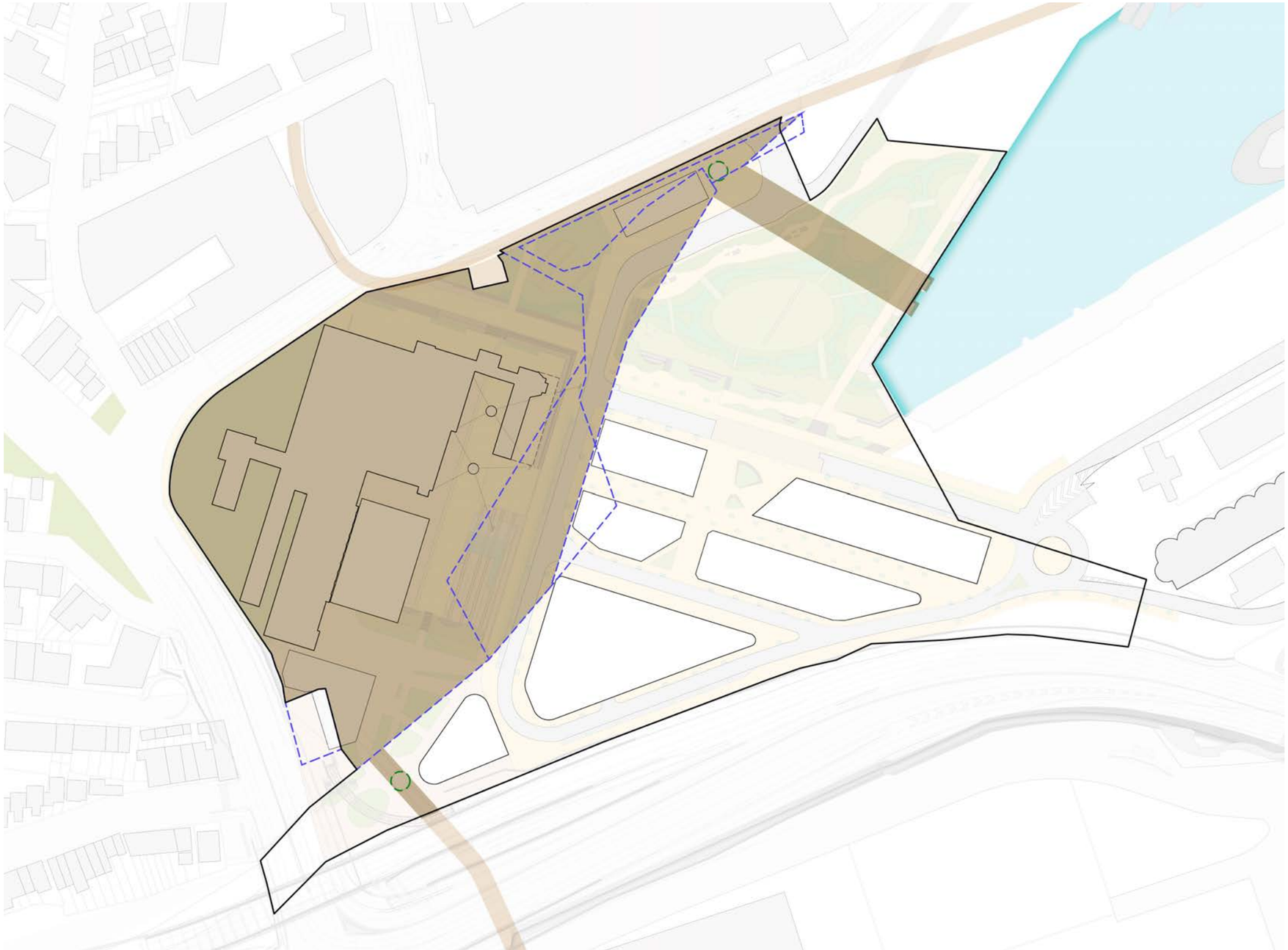


Figure 170: Heritage

Proposed Solar Access to Public Open Space.

The minimum proportions of the public plaza spaces that are to achieve a minimum 2 hours of sunlight between 9am and 3pm on the winter solstice (June 21) are:

- Metro Station Plaza 100%
- White Bay Power Station Plaza 60%
- Southern Entry Plaza 100%

The minimum proportions of the public park space that are to achieve a minimum 4 hours of sunlight between 9am and 3pm on the winter solstice (June 21) are:

- Future Park 95%

Figure 171: Solar Analysis

Appendices

Proof of Concept

The Proof of Concept demonstrates one way in which built form can be configured and designed to meet the intent and aspiration outlined in this Report and the accompanying Design Guide.

The following pages contain detailed information that demonstrates how the Concept Master Plan can achieve the vision and design principles of the Urban Design Framework and conform to the objectives and controls of the Design Guide. This includes:

- Typical floor plans for lower and upper levels
- Building entrance plans
- ADG assessment for solar access and cross ventilation
- Yields
- Site sections
- Site elevations

Metro Station and associated development
are indicative and subject to design development

Proof of Concept

The following yields represent just one of many permutations of what may be developed under the proposed permissible FSR and are not representative of any development outcomes that may be achieved through a design excellence process.

Proof of Concept Yields Overall

Totals

250 Dwellings
500 Residents
5,412 Workers

Residential GFA = 23,923m2
Commercial GFA = 78,047m2
Retail GFA = 4,296m2
Community GFA = 3,000m2

Total = 109,266m2 GFA

1.1:1 Gross FSR on a 93,000m2 site
More than 50% as public open space

Assumptions

80% GBA to GFA (average across all buildings and uses)
95m2 GFA per dwelling
2.0 persons per dwelling

15m2 GFA commercial per job
35m2 GFA retail/community per job

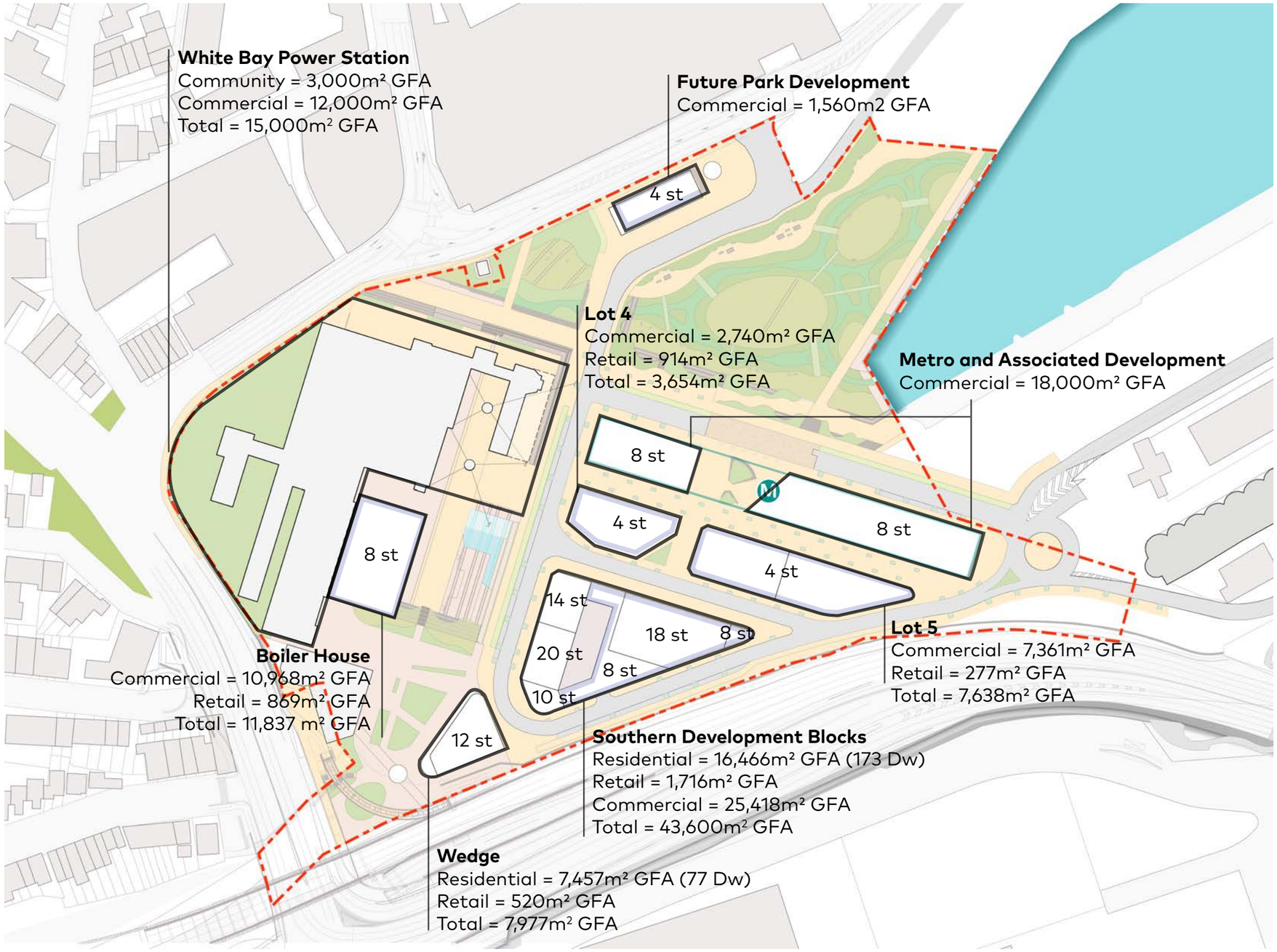


Figure 172: Yields Overall

Building Heights and Separation within the Envelopes

The Master Plan demonstrates that the anticipated yields with and without design excellence provisions, sit comfortably within the building envelopes prescribed by the Master Plan and Urban Design Framework. This allows for modulation within these envelopes for additional form diversity aligned with the principles and objectives of the Design Guide.

- The permissible building envelopes represent a total volume of 708,000m3
- The base permissible FSR scheme at a total of 503,000m3 would realise 71% of the volume of the building envelopes
- The FSR achievable with design excellence bonuses up to 15% would total approximately 580,000m3 and realise 82% of the volume of the building envelopes.

*excludes WBPS internal areas

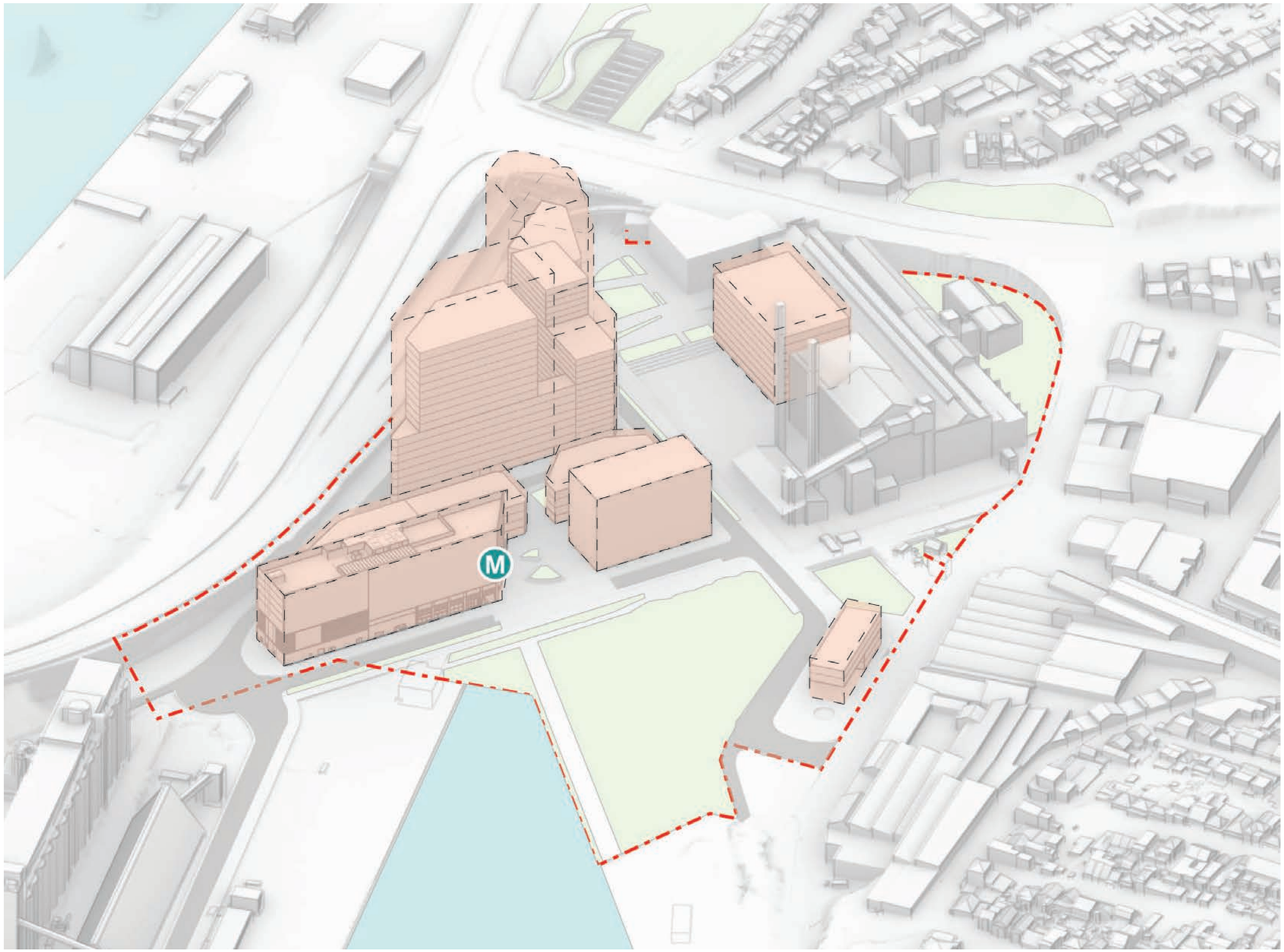


Figure 173: Building Heights and Separation within the Envelopes

Building Envelopes

Appendices

Proof of Concept

Ground Floor Overall

Figure 174: Ground Floor Overall

Metro Associated Development, Lot 4 and 5

Typical Ground Floor

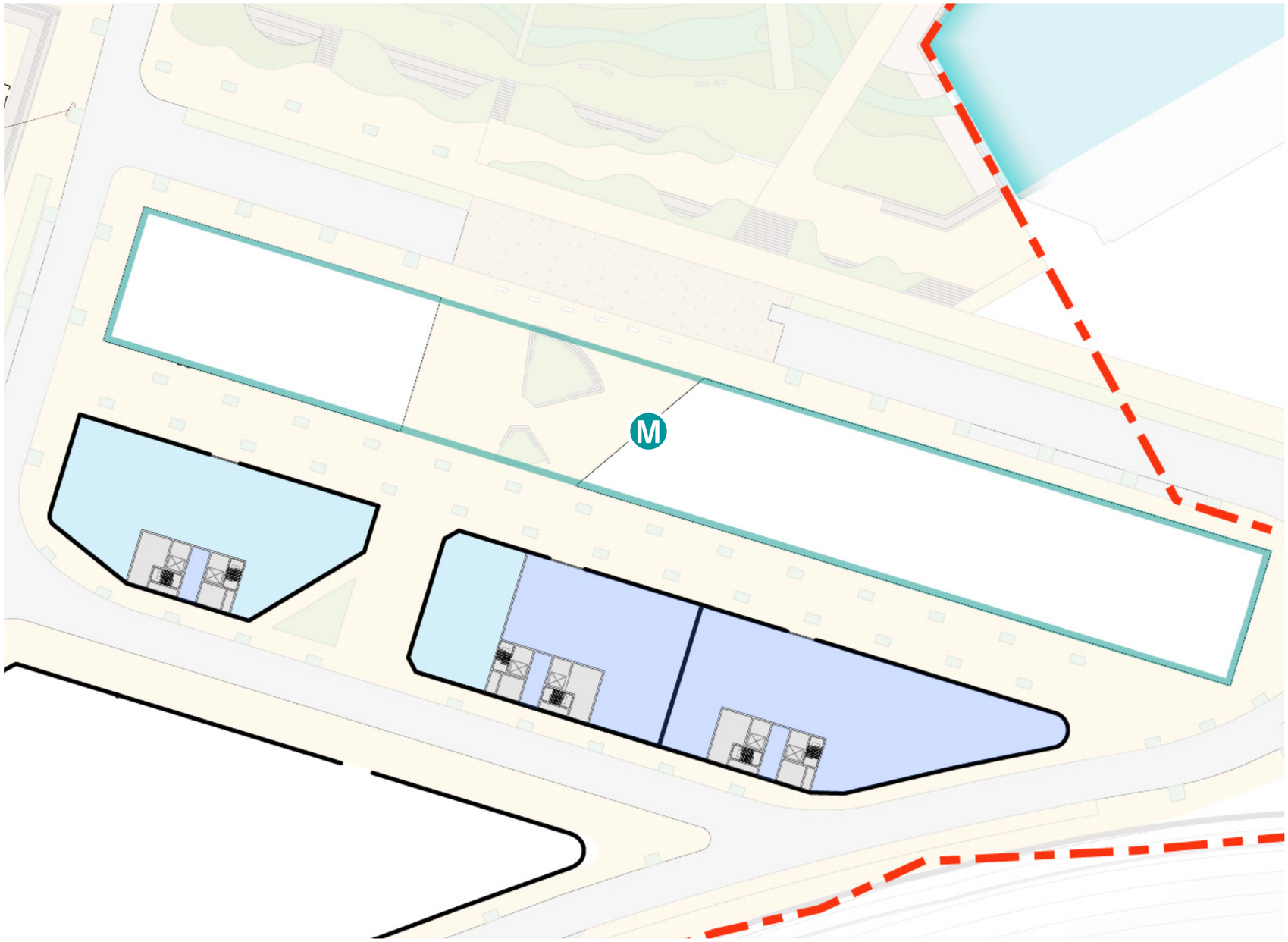


Figure 175: Ground Floor

Commercial Retail Circulation/Service/Waste

Appendices

Proof of Concept

Metro Associated Development, Lot 4 and 5

Typical Ground Floor
Building Entries

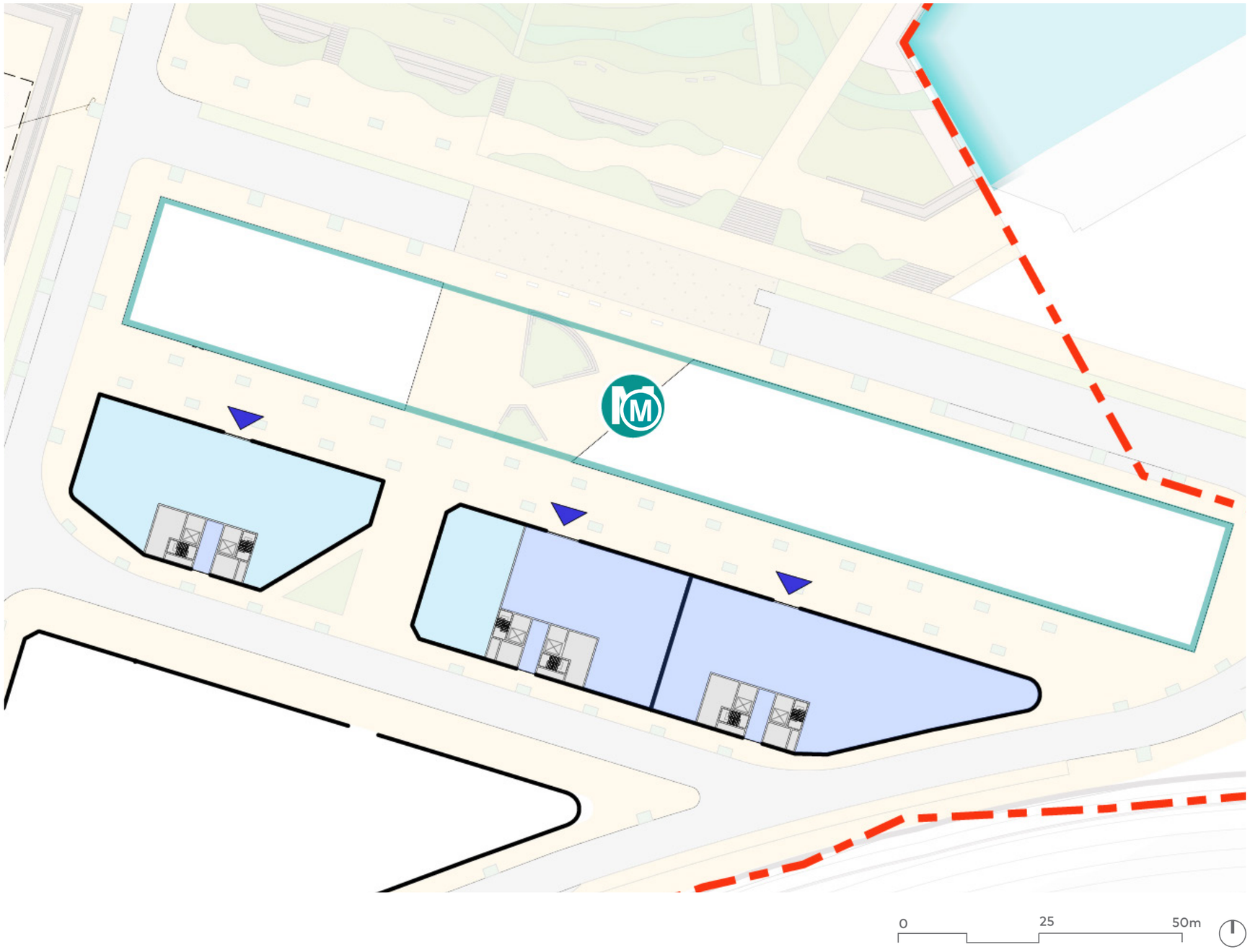


Figure 176: Ground Floor and entries

Metro Associated Development, Lot 4 and 5

Typical Level

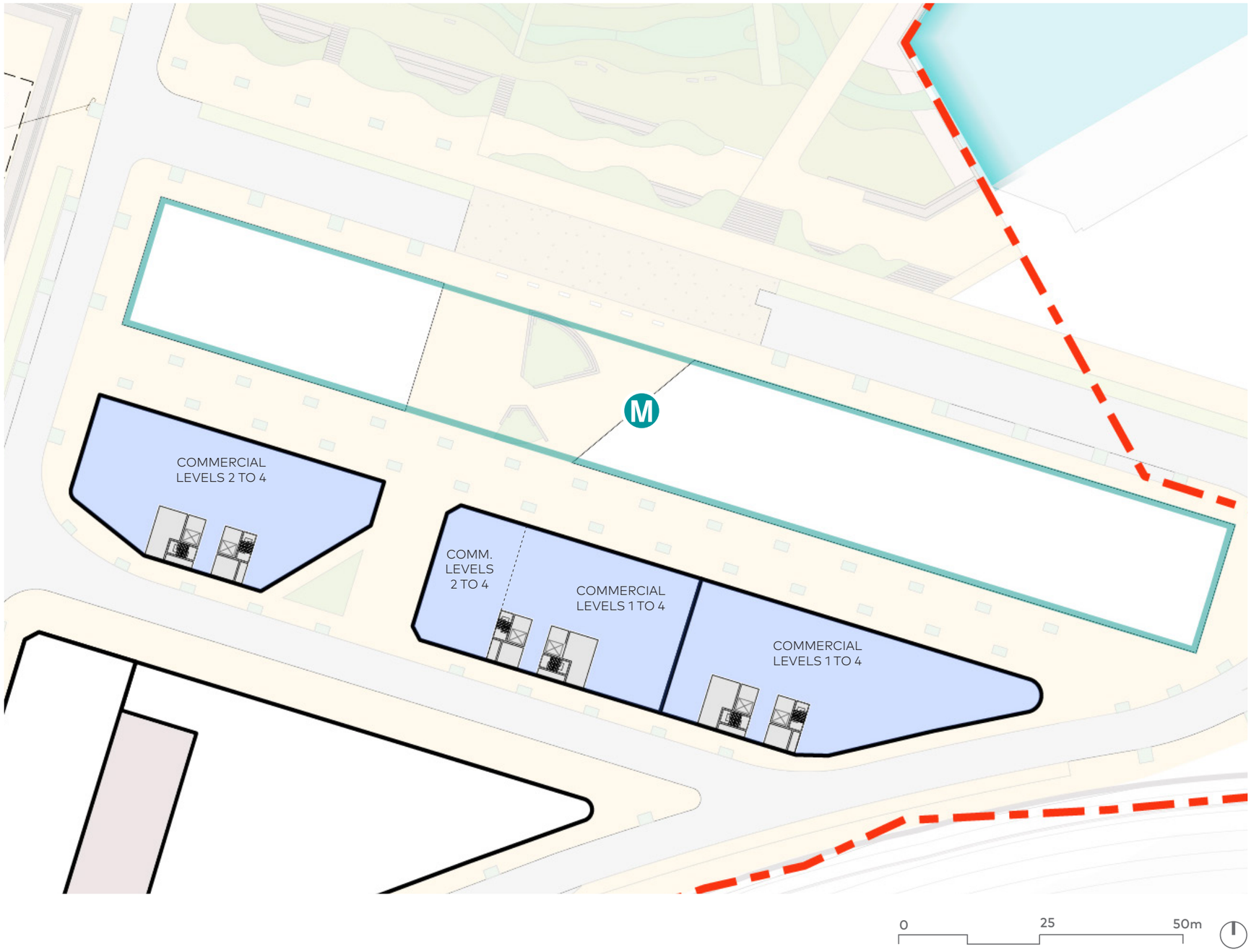


Figure 177: Typical Level

Commercial

Circulation/Service/Waste

Appendices

Proof of Concept

Yields

Metro Station and Associated Development
Commercial GFA = 18,000m2
Commercial Jobs = 1,200

Total = 18,000m2 GFA
Total = 1,200 Jobs

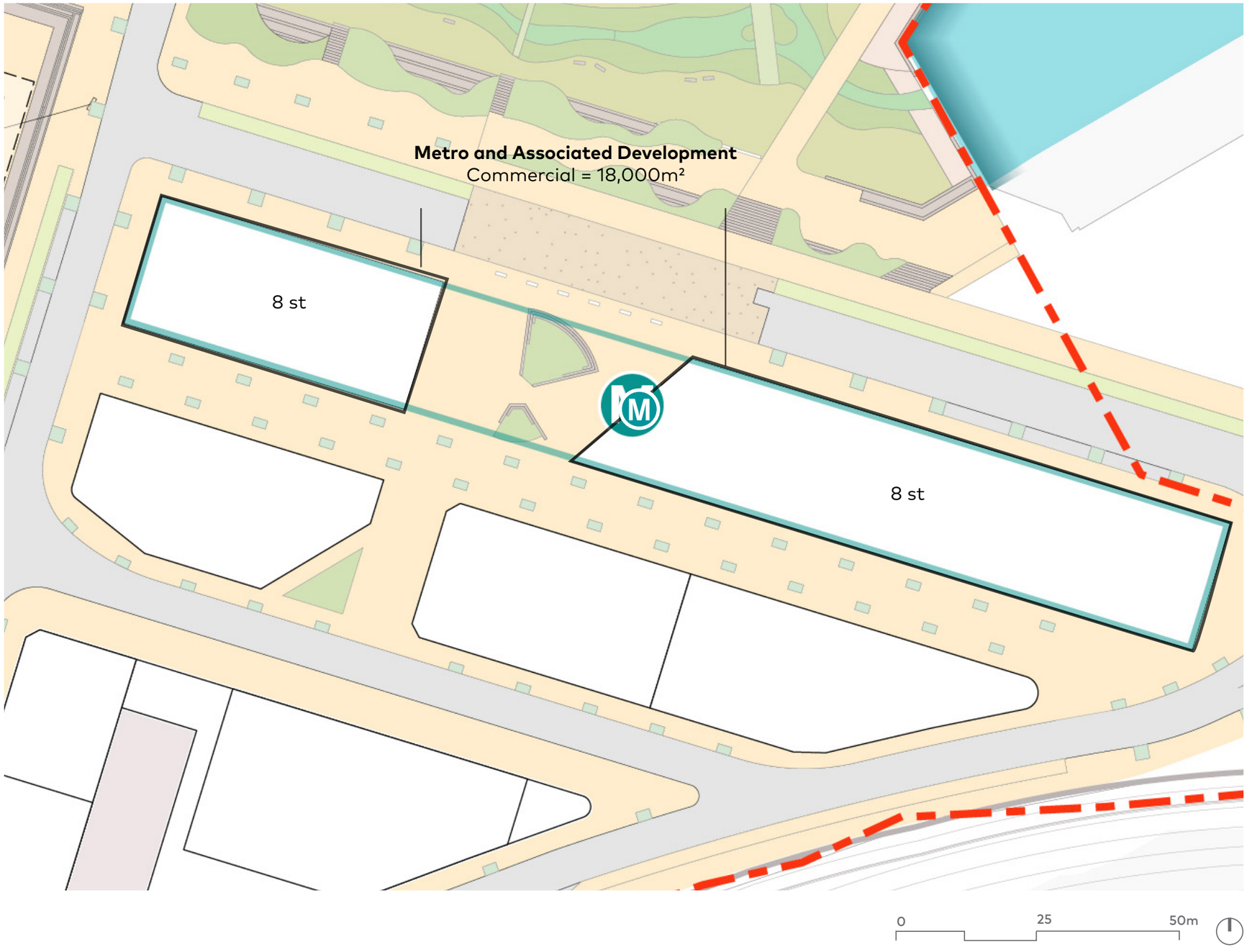


Figure 178: Metro Station and Associated Development Yields

Yields

Lot 4
Commercial GFA = 2,740m2
Commercial Jobs = 183

Retail GFA = 422m2
Retail Jobs = 26

Total = 3,654m2 GFA
Total = 209 Jobs

Lot 5
Commercial GFA = 7,361m2
Commercial Jobs = 491

Retail GFA = 277m2
Retail Jobs = 8

Total = 3,654m2 GFA
Total = 499 Jobs

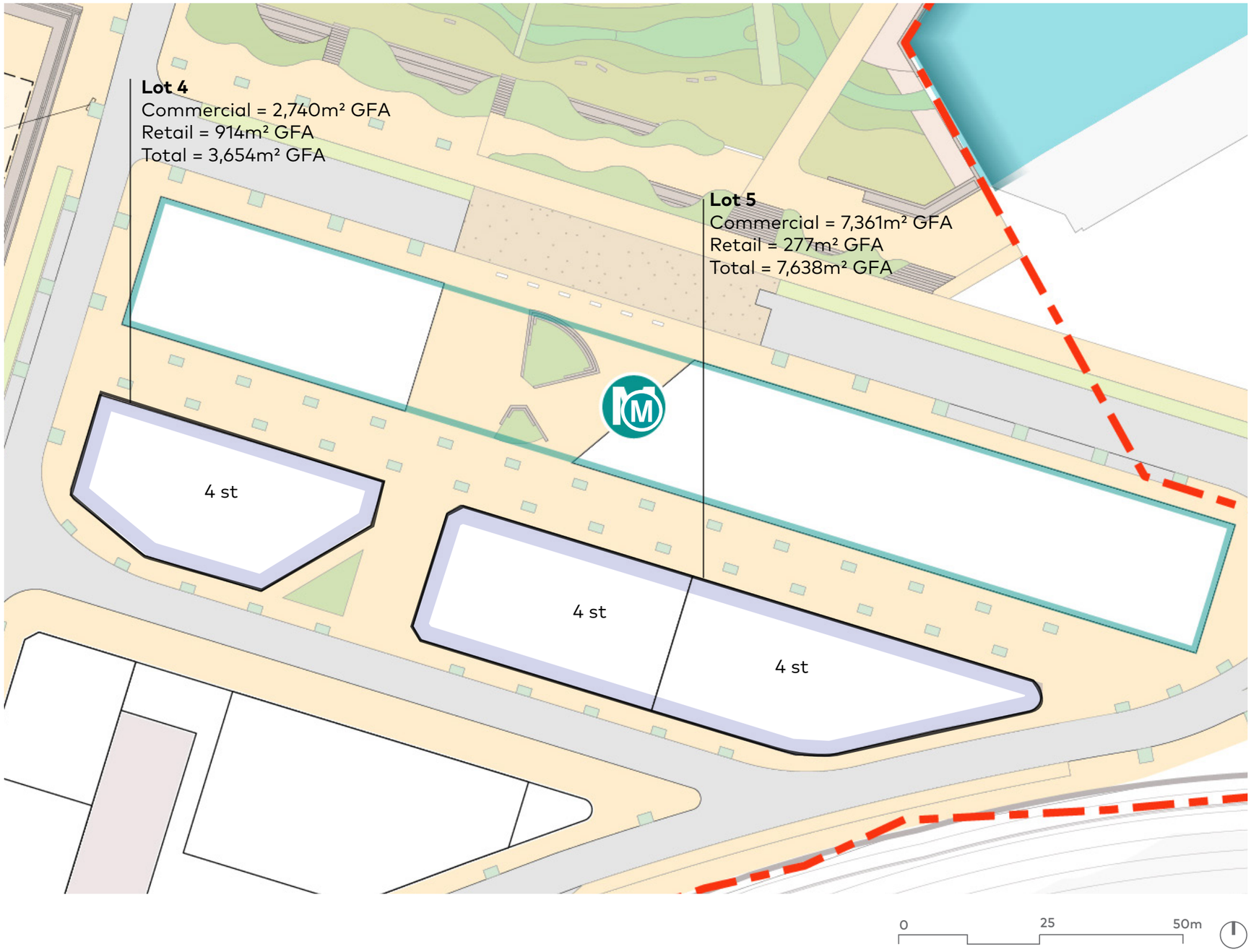


Figure 179: Lot 4 and 5 Yields

Appendices

Proof of Concept

Southern Development Parcel and Wedge Building

Typical Basement Level and Entry

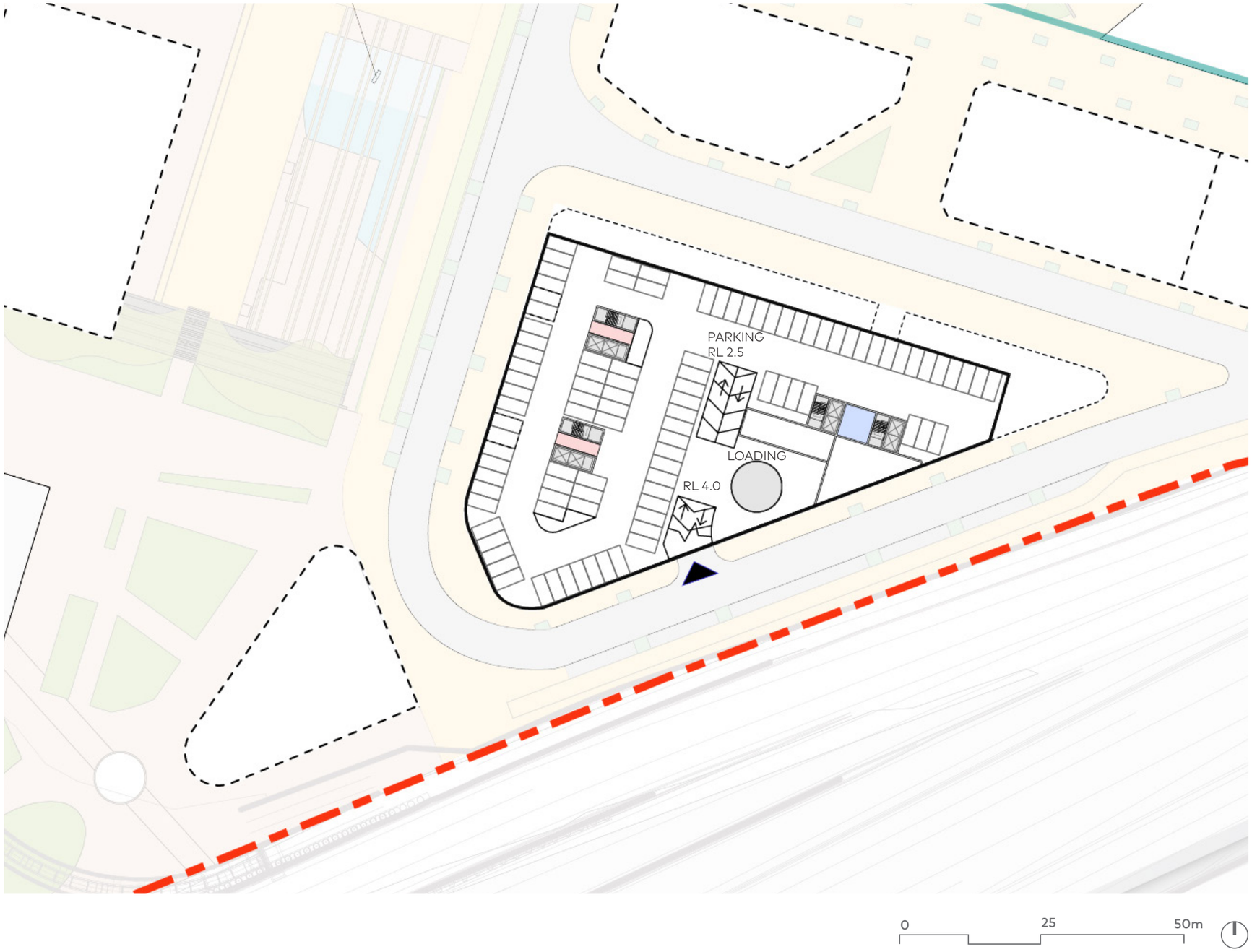


Figure 180: Typical Basement Level and Entry

Southern Development Parcel and Wedge Building

Typical Ground Level

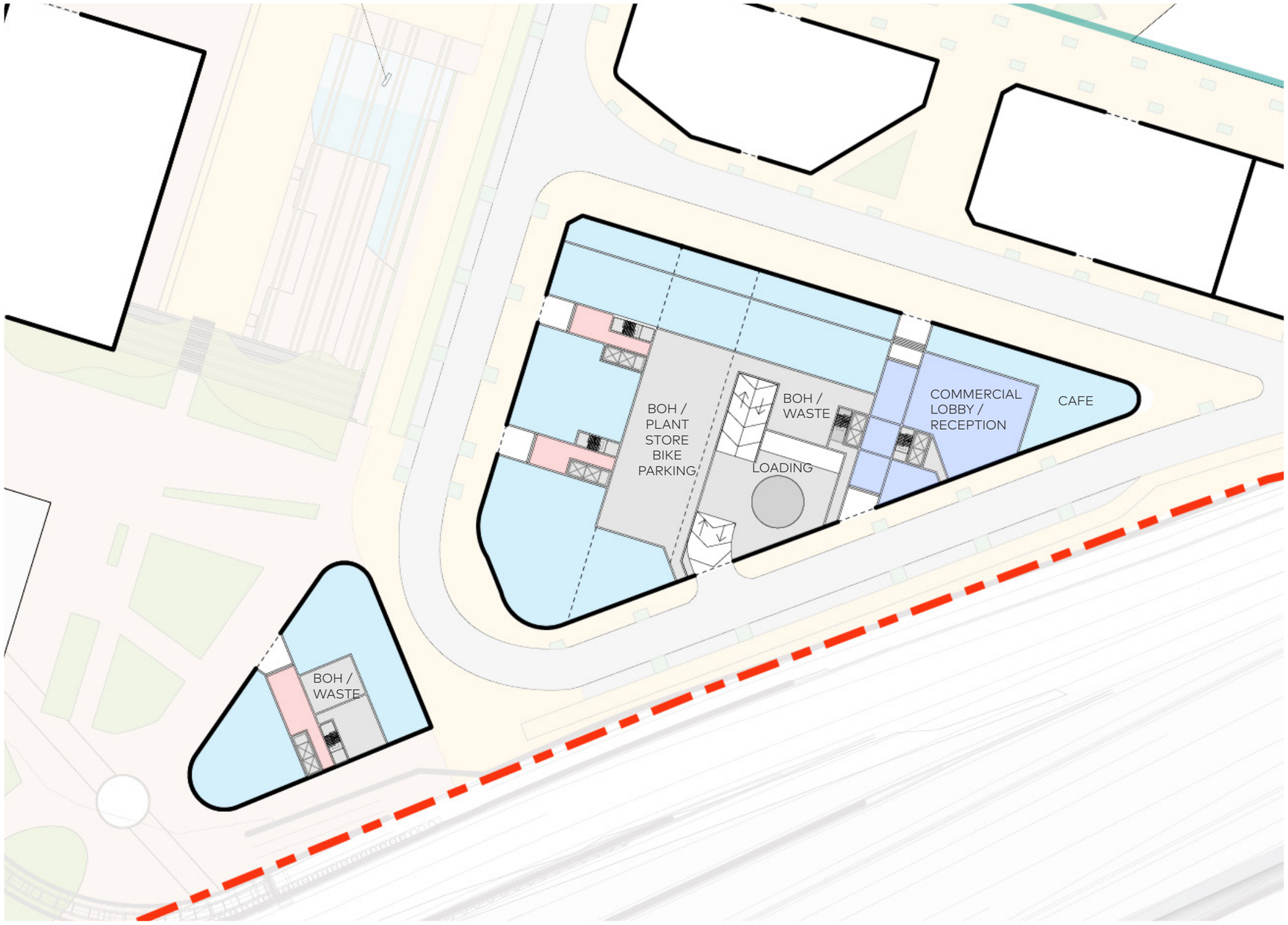


Figure 181: Typical Ground Level

Proof of Concept

Southern Development Parcel and Wedge Building

Typical Ground Level
Building Entries

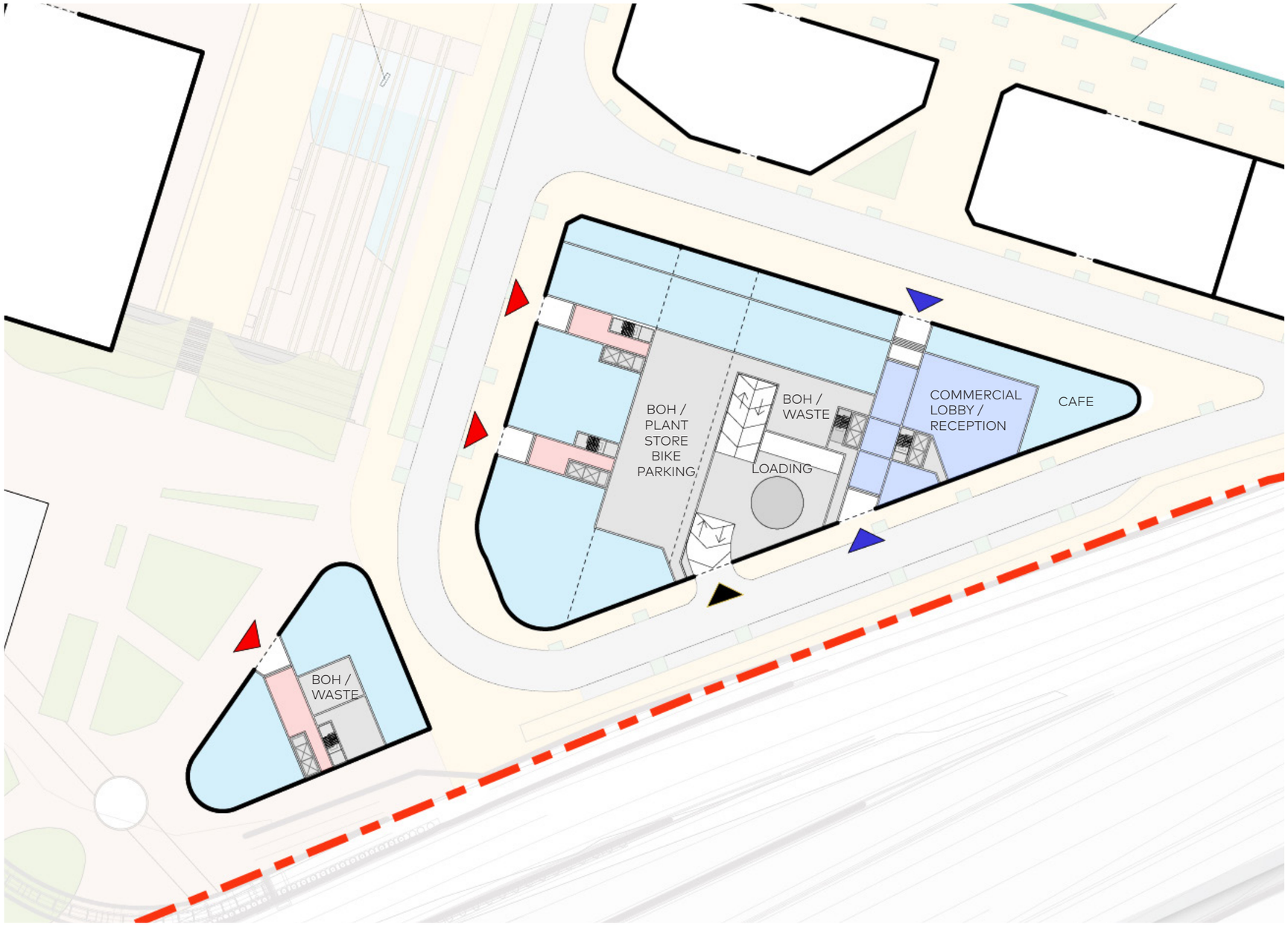


Figure 182: Typical Ground Level and Building Entries

Southern Development Parcel and Wedge Building

Typical Mid Level

Figure 183: Typical Mid Level

Appendices

Proof of Concept

Southern Development Parcel and Wedge Building

Typical Mid Level
Solar and Ventilation Analysis

Figure 184: Typical Mid Level and Solar and Analysis

Circulation/Service/Waste
> 2 hours of Sunlight
> 2 hours of Sunlight above level 8

Southern Development Parcel and Wedge Building

Typical Mid Level
Solar and Ventilation Analysis

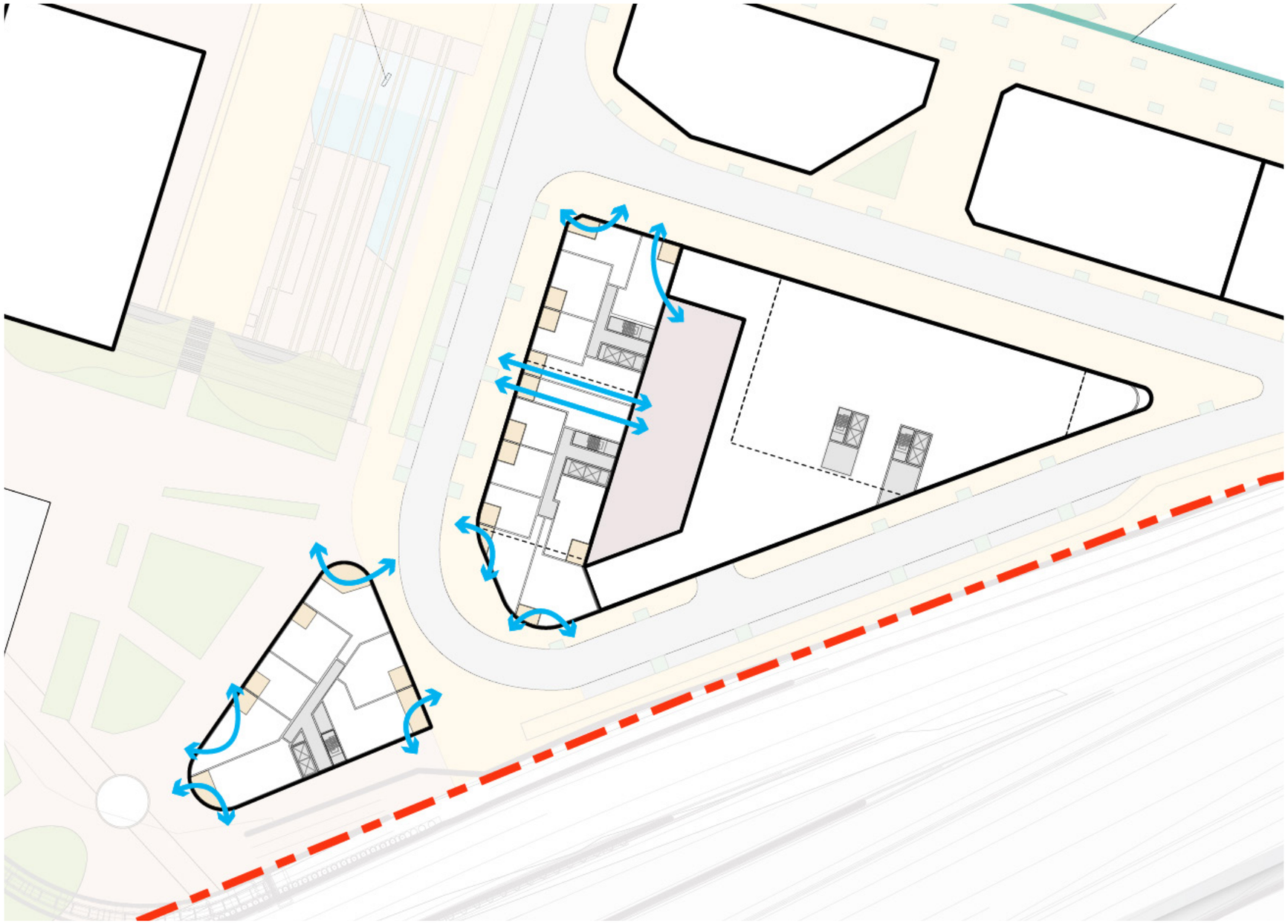


Figure 185: Typical Mid Level and Ventilation Analysis

Circulation/Service/Waste

Ventilation

Appendices

Proof of Concept

Southern Development Parcel and Wedge Building

Typical Upper Level

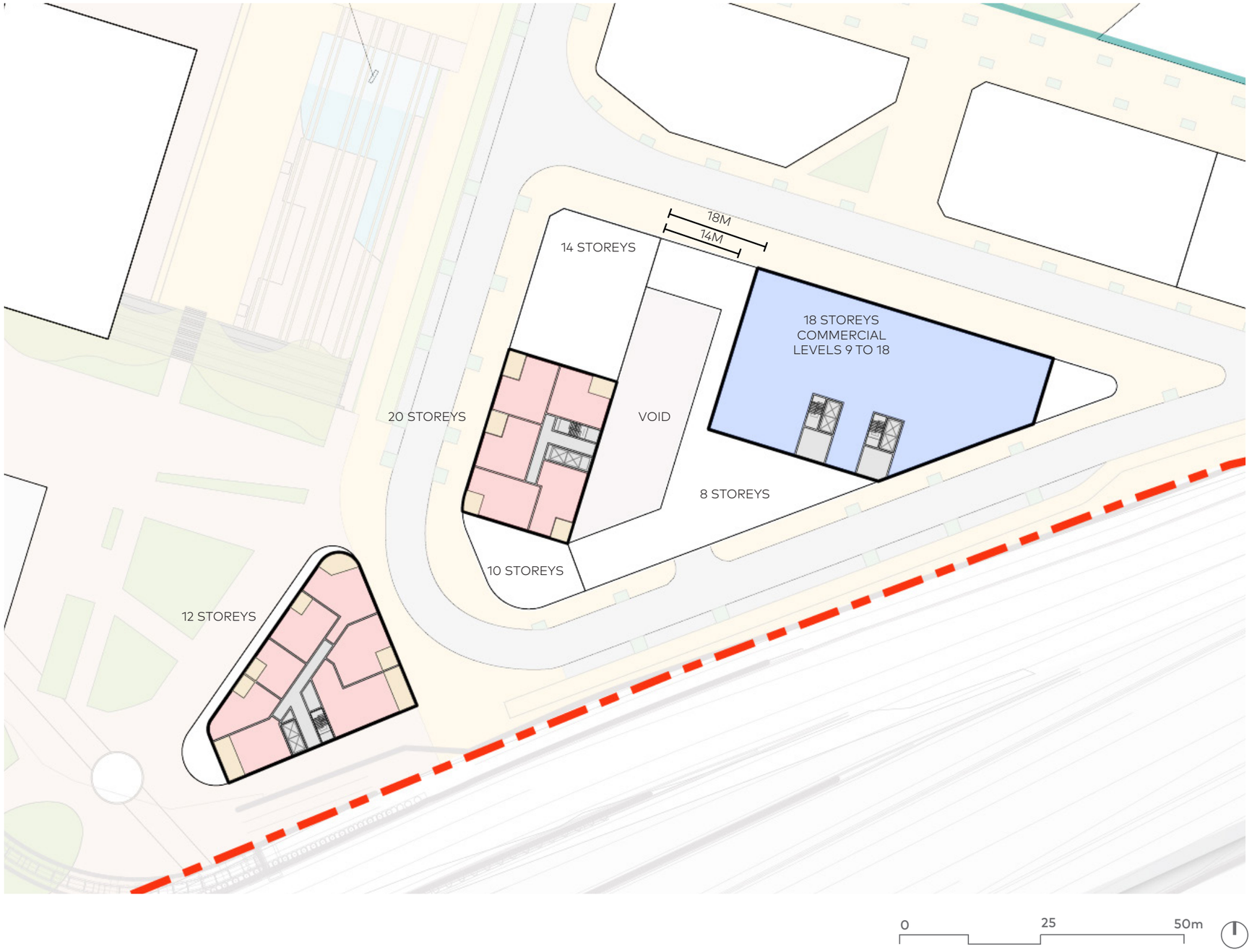


Figure 186: Typical Upper Level

Southern Development Parcel and Wedge Building

Typical Upper Level
Solar and Ventilation Analysis

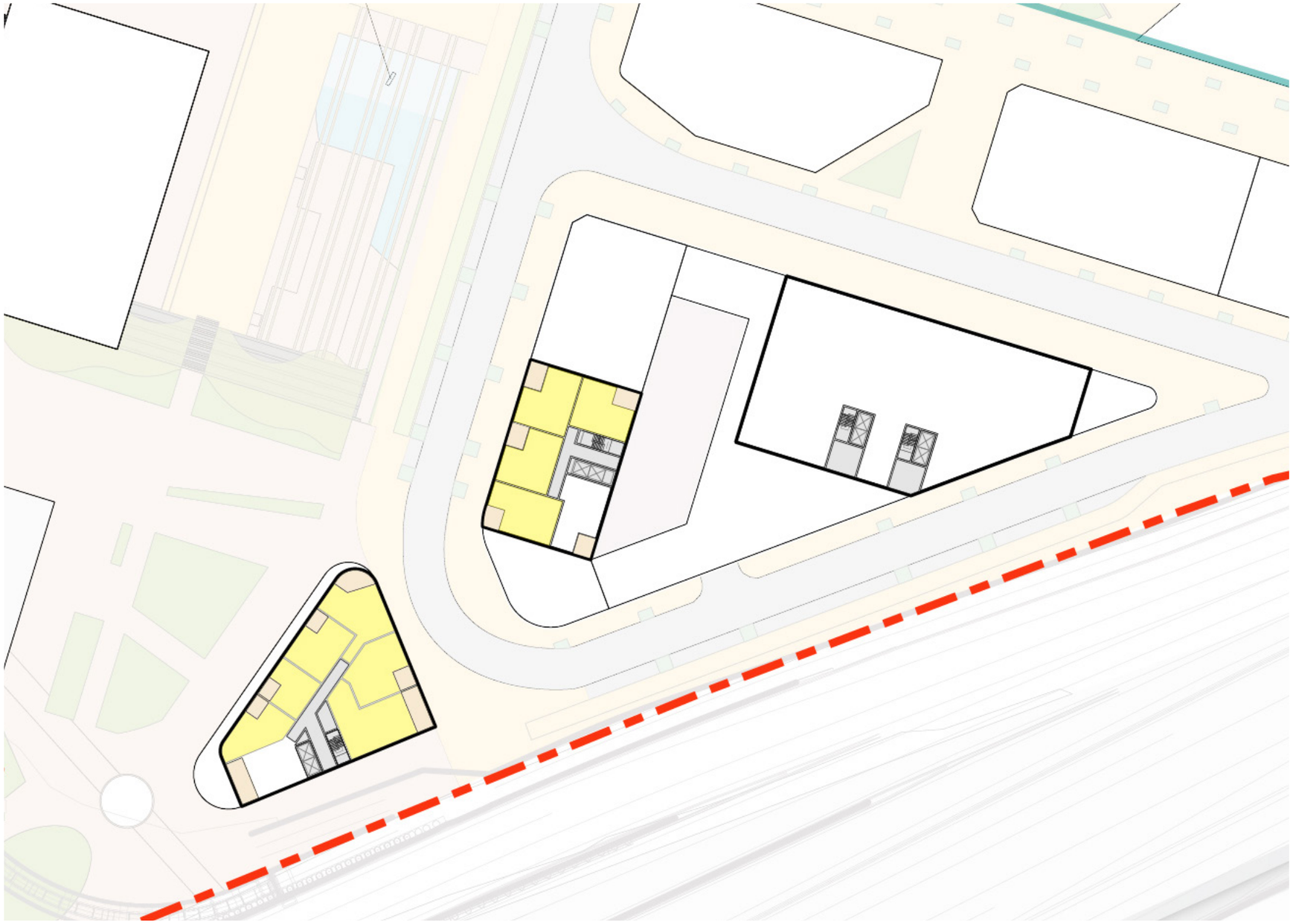


Figure 187: Typical Upper Level and Solar Analysis

Circulation/Service/Waste

> 2 hours of Sunlight

Appendices

Proof of Concept

Southern Development Parcel and Wedge Building

Typical Upper Level
Solar and Ventilation Analysis

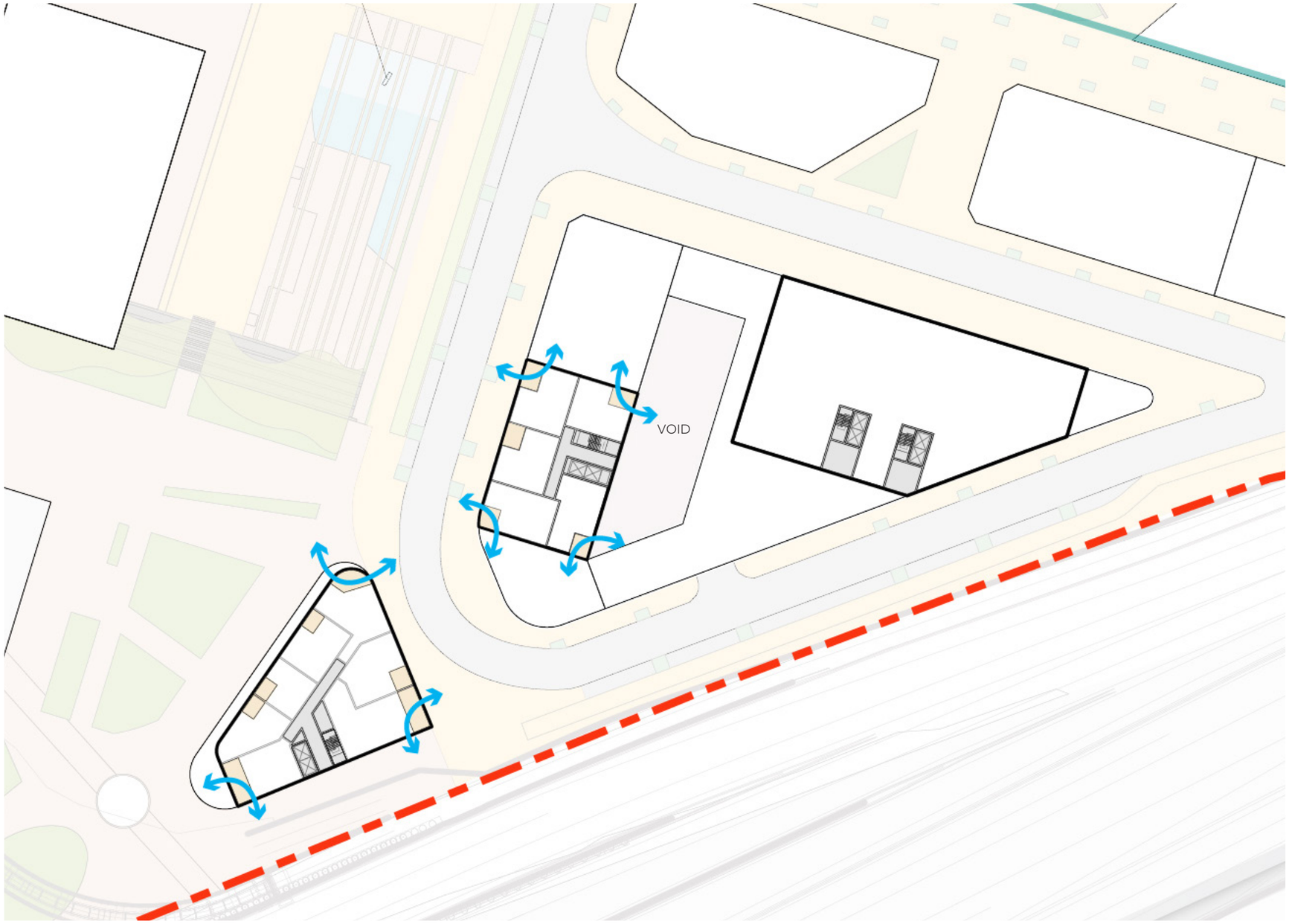


Figure 188: Typical Upper Level and Ventilation Analysis

Yields

Southern Development Parcel

Residential GFA = 16,466m2
Dwellings = 173
Residents = 346

Commercial GFA = 25,418m2
Commercial Jobs = 1,695

Retail GFA = 1,716m2
Retail Jobs = 49

Total = 43,600m2 GFA
Total = 1,744 Jobs

Total "Basement" GBA = 5,060m2

Wedge

Residential GFA = 7,457m2
Dwellings = 77
Residents = 154

Retail GFA = 520m2
Retail Jobs = 15

Total = 7,977m2 GFA
Total = 15 Jobs

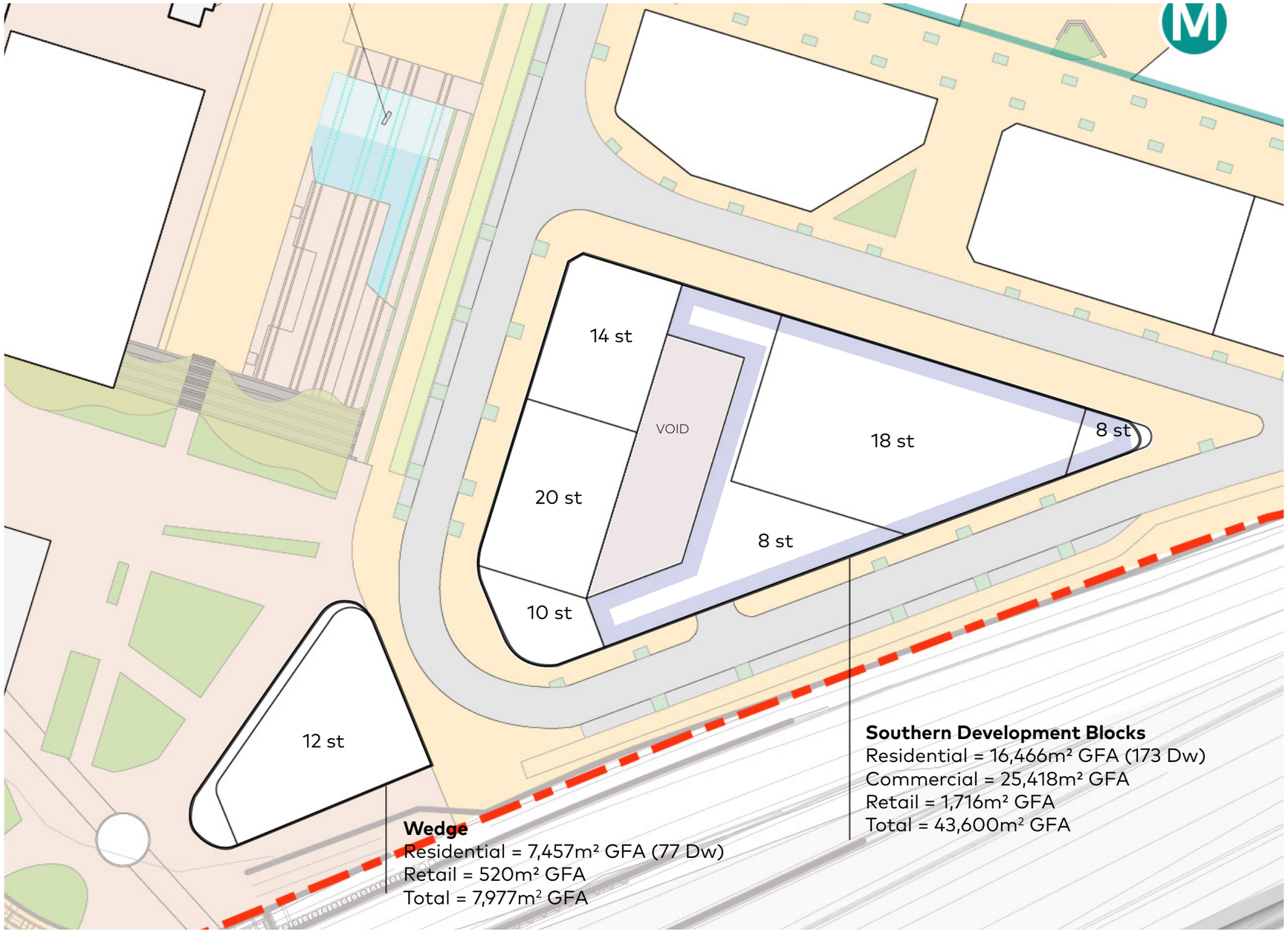


Figure 189: Southern Development Yields

Proof of Concept

Boiler House
Typical Ground Level

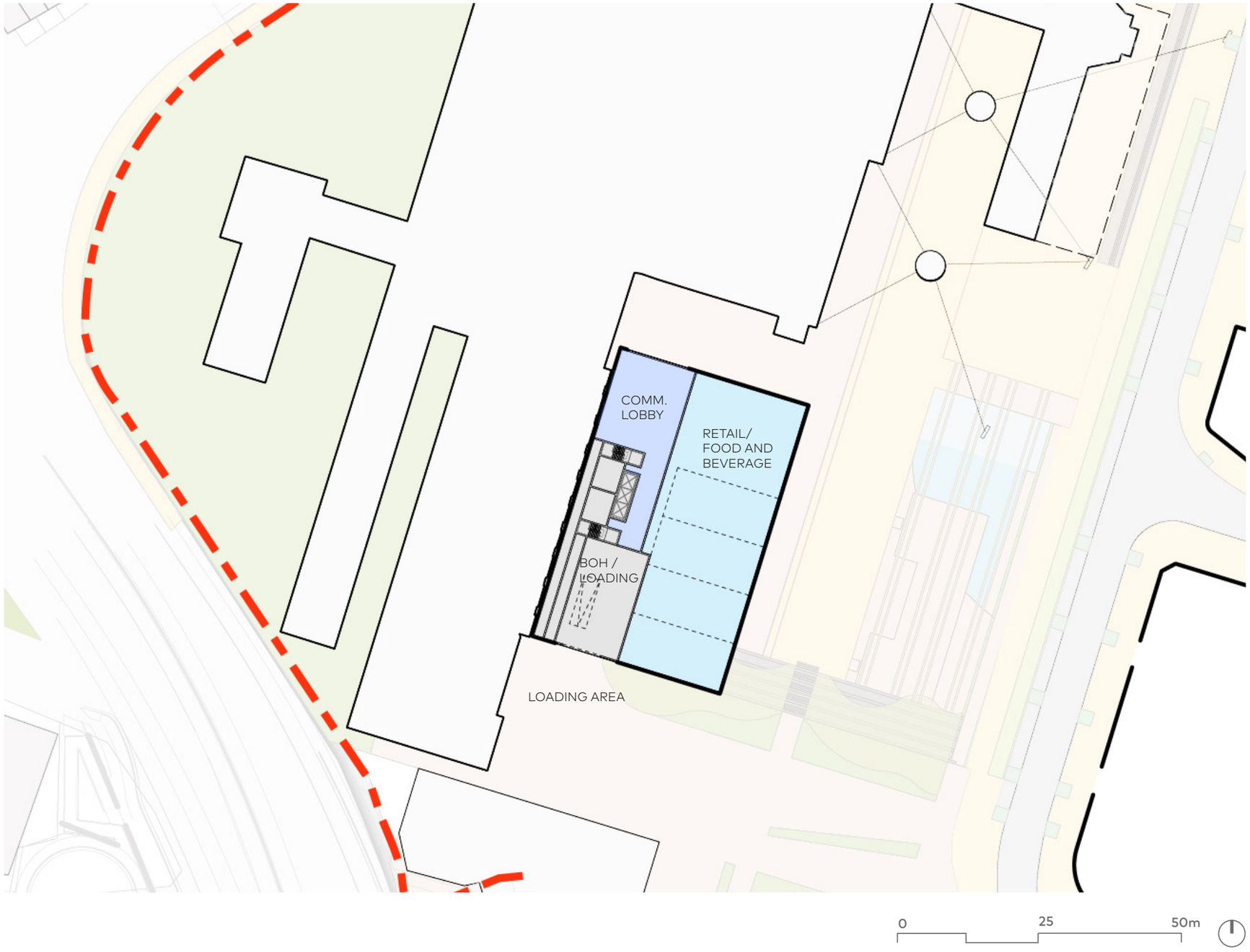


Figure 190: Typical Ground Level

Commercial Retail Circulation/Service/Waste

Boiler House
Typical Ground Level
Building Entries

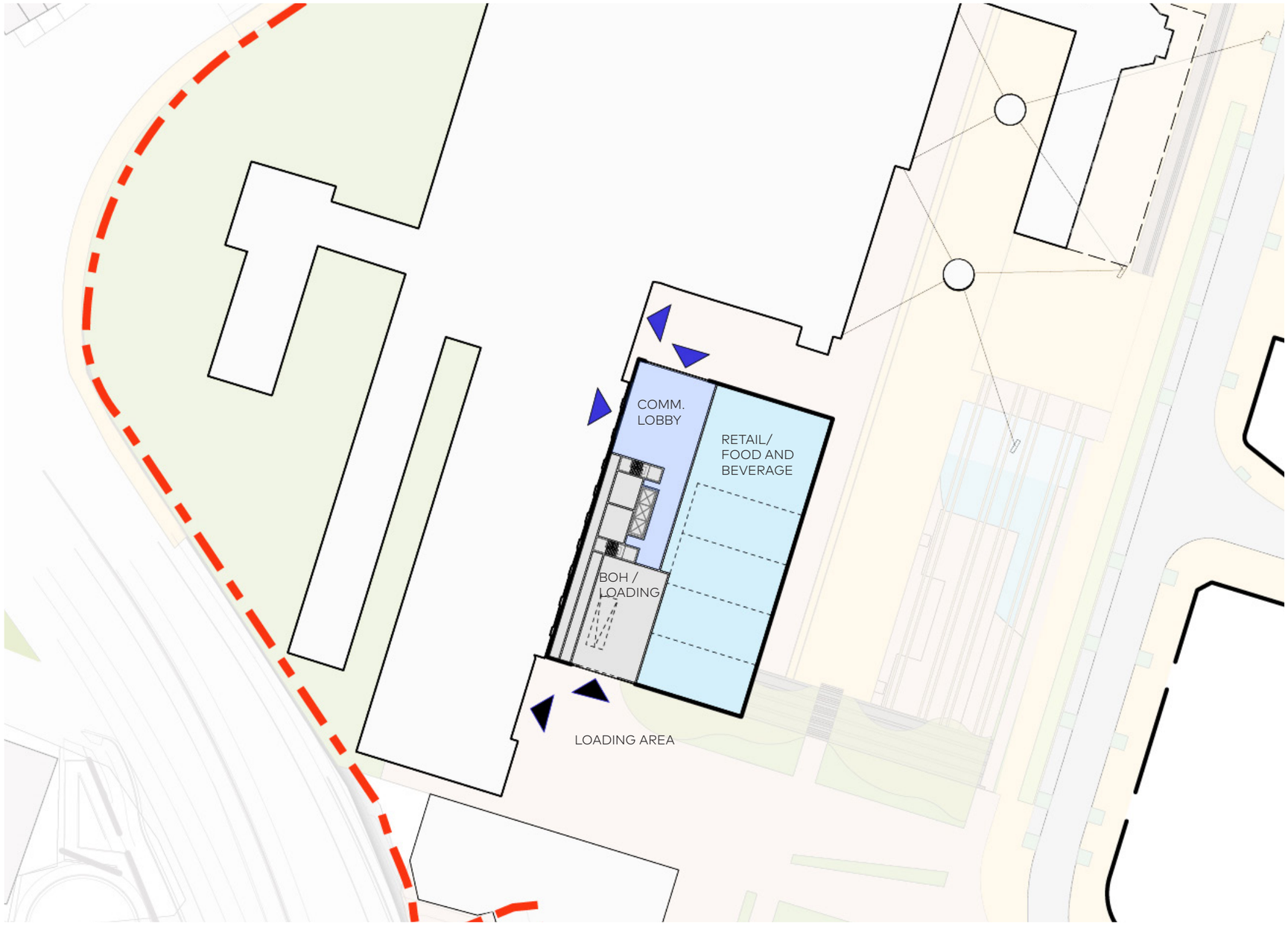


Figure 191: Typical Ground Level and Building Entries

Proof of Concept

Boiler House
Typical Level

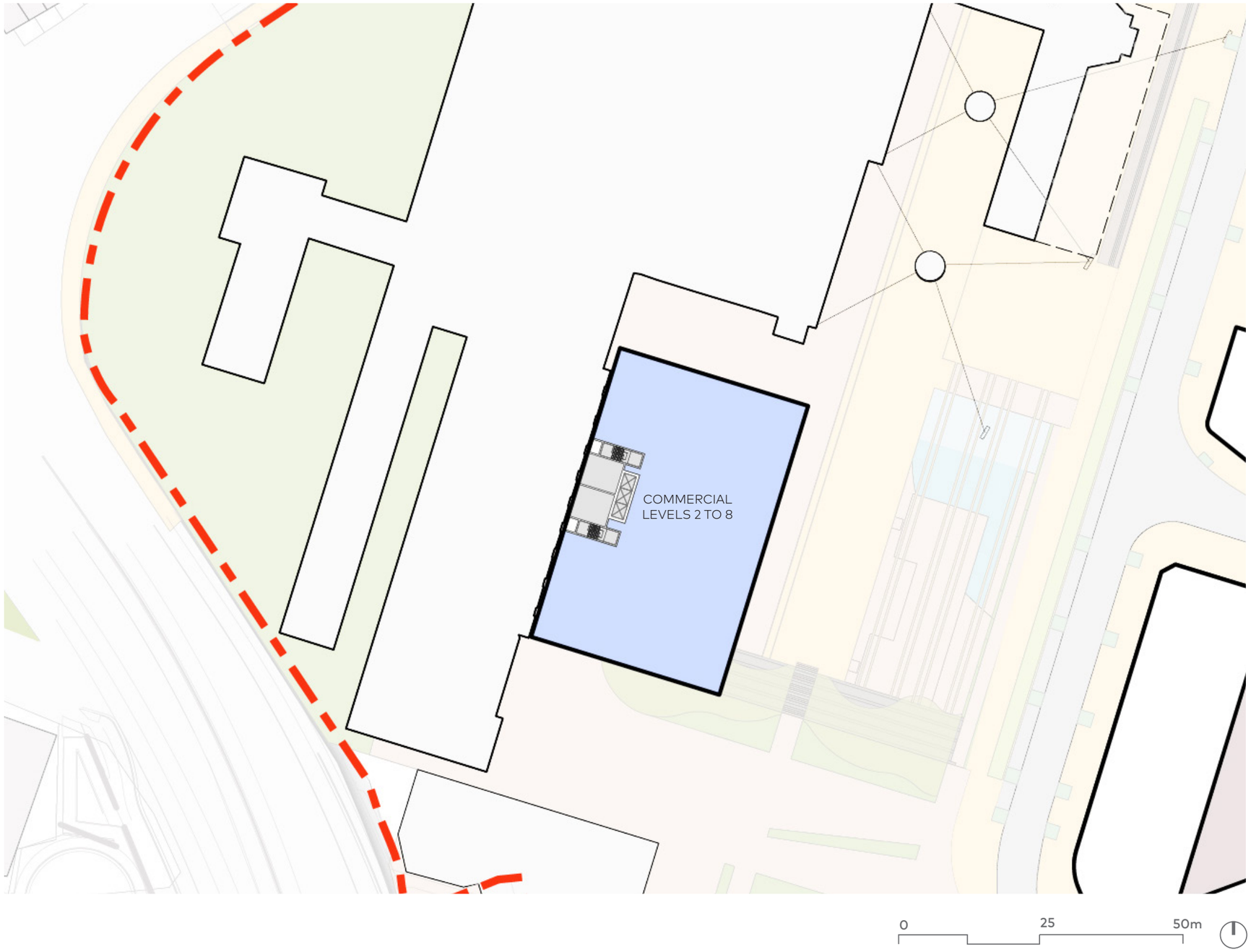


Figure 192: Typical Level

Circulation/Service/Waste
Commercial

Yields

Boiler House

Commercial GFA = 10,968m2
Commercial Jobs = 731

Retail GFA = 869m2
Retail Jobs = 25

Total = 11,837m2 GFA
Total = 757 Jobs

Total "Basement" GBA = 240m2

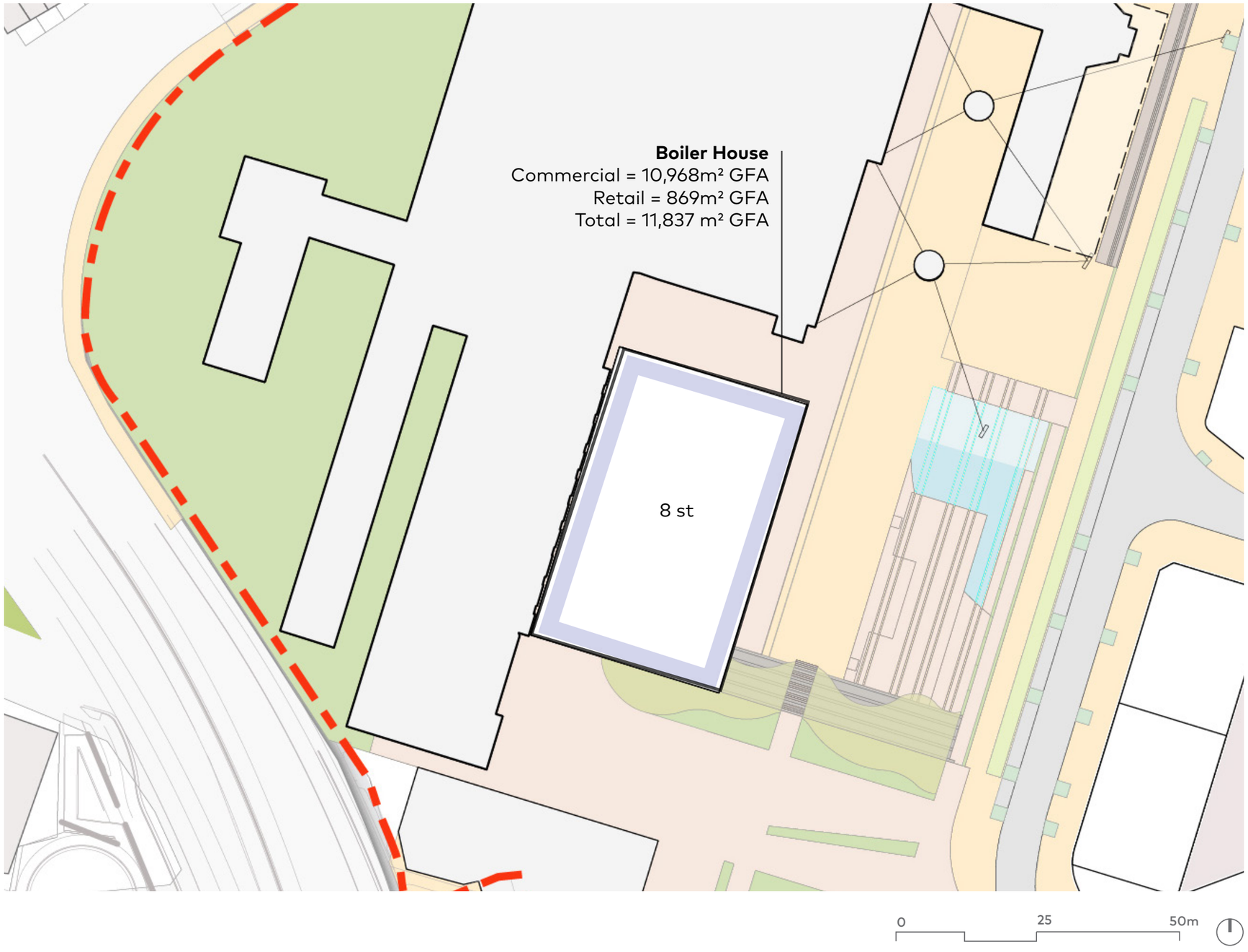


Figure 193: Boiler House Yields

Appendices

Proof of Concept

Future Park Development

Typical Ground Floor

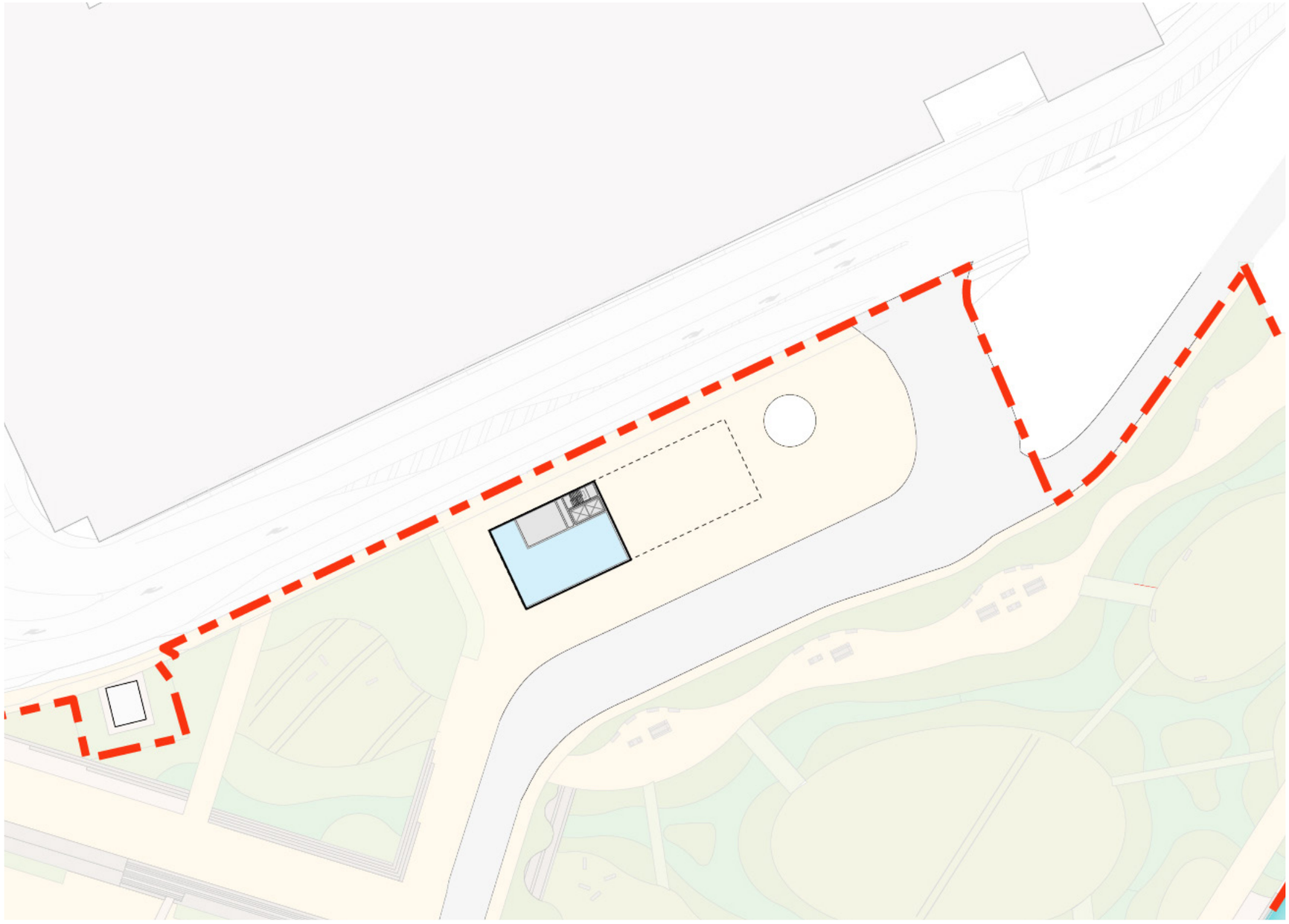


Figure 194: Typical Ground Floor

Retail

Circulation/Service/Waste

Future Park Development

Typical Ground Floor
Building Entries

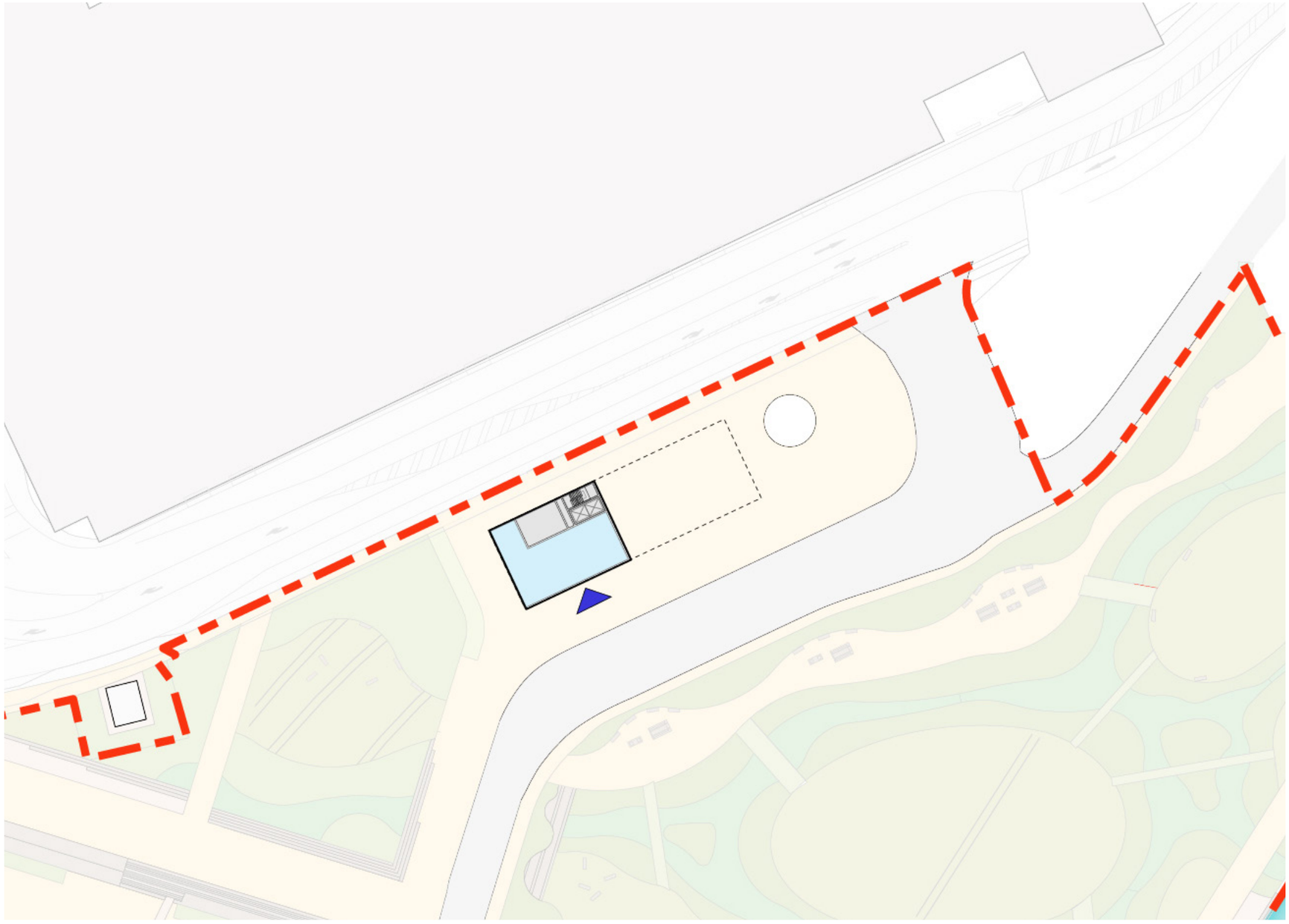


Figure 195: Typical Ground Floor and Building Entries

Retail
Circulation/Service/Waste
Commercial Entry

Proof of Concept

Future Park Development

Typical Level

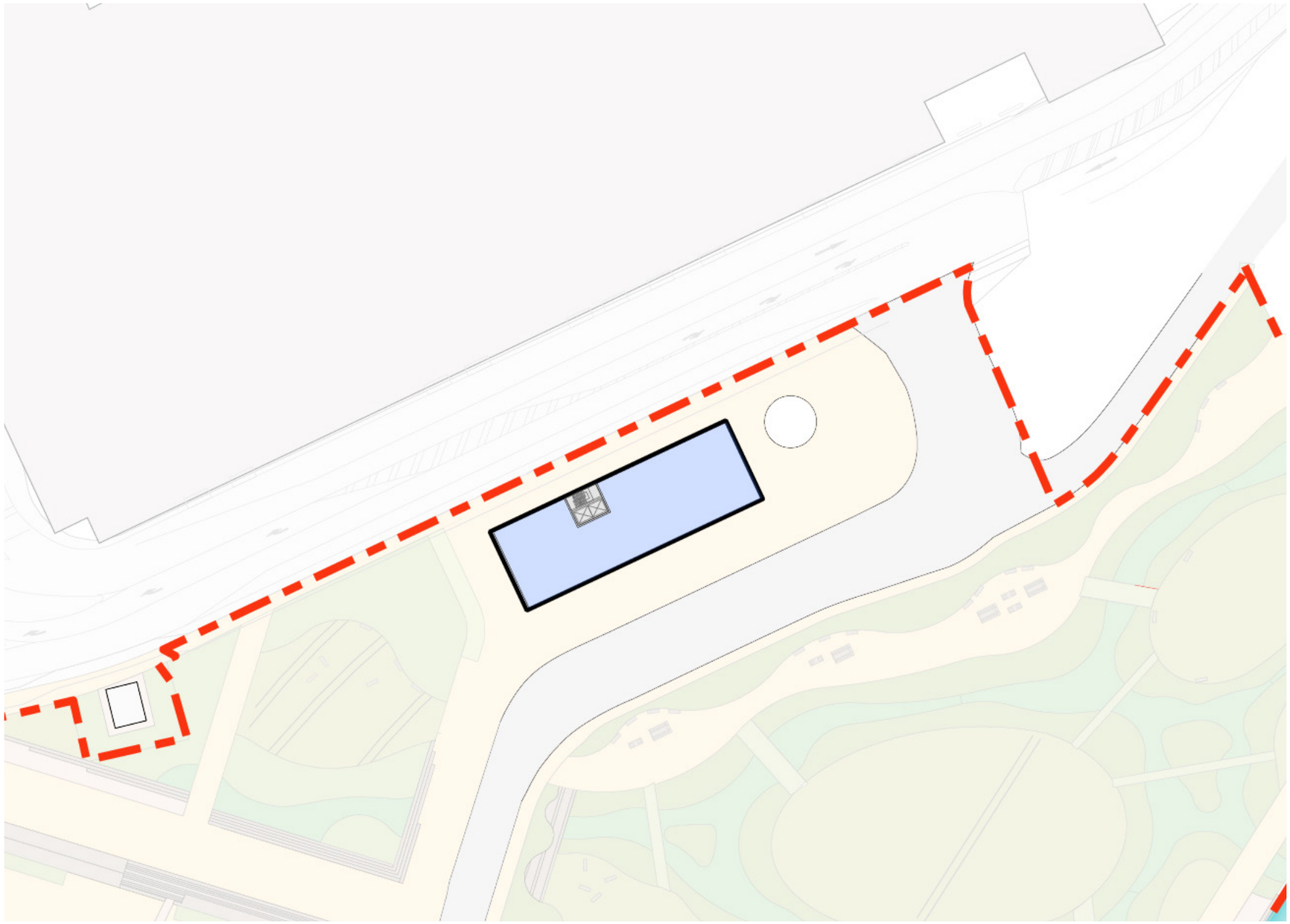


Figure 196: Typical Level

Commercial

Circulation/Service/Waste

Yields

Future Park Development

Commercial GFA = 1,560m2
Commercial Jobs = 104

Total = 1,560m2 GFA
Total = 104 Jobs

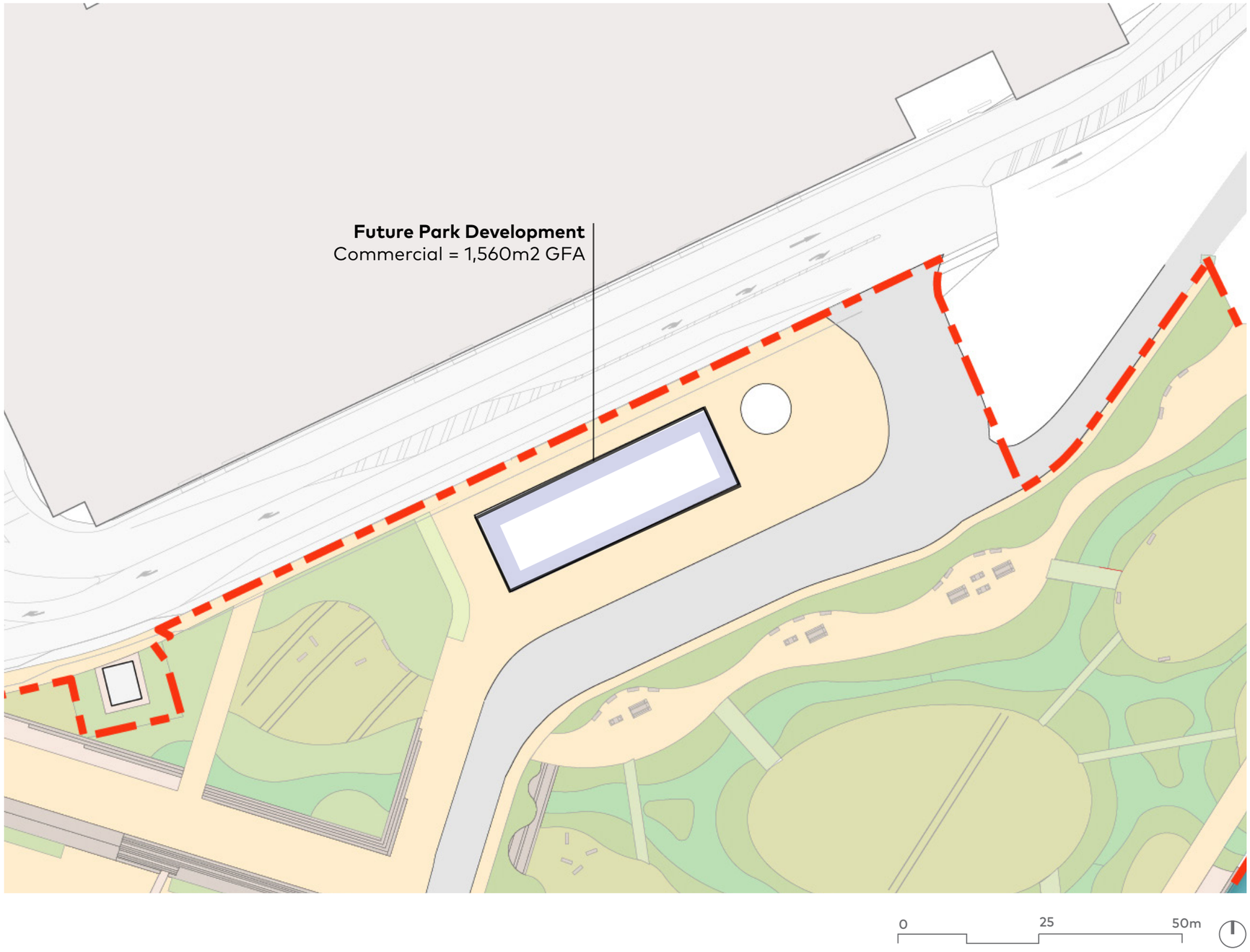


Figure 197: Future Park Development Yields

Appendices

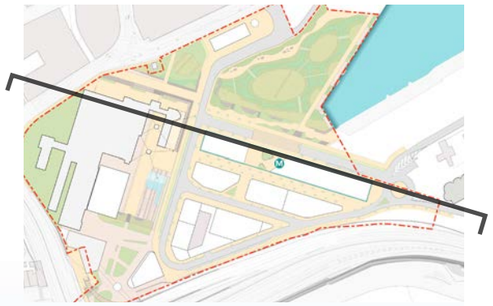
Proof of Concept

Metro Station and associated development
are indicative and subject to design development

Appendices

Proof of Concept

Site Sections



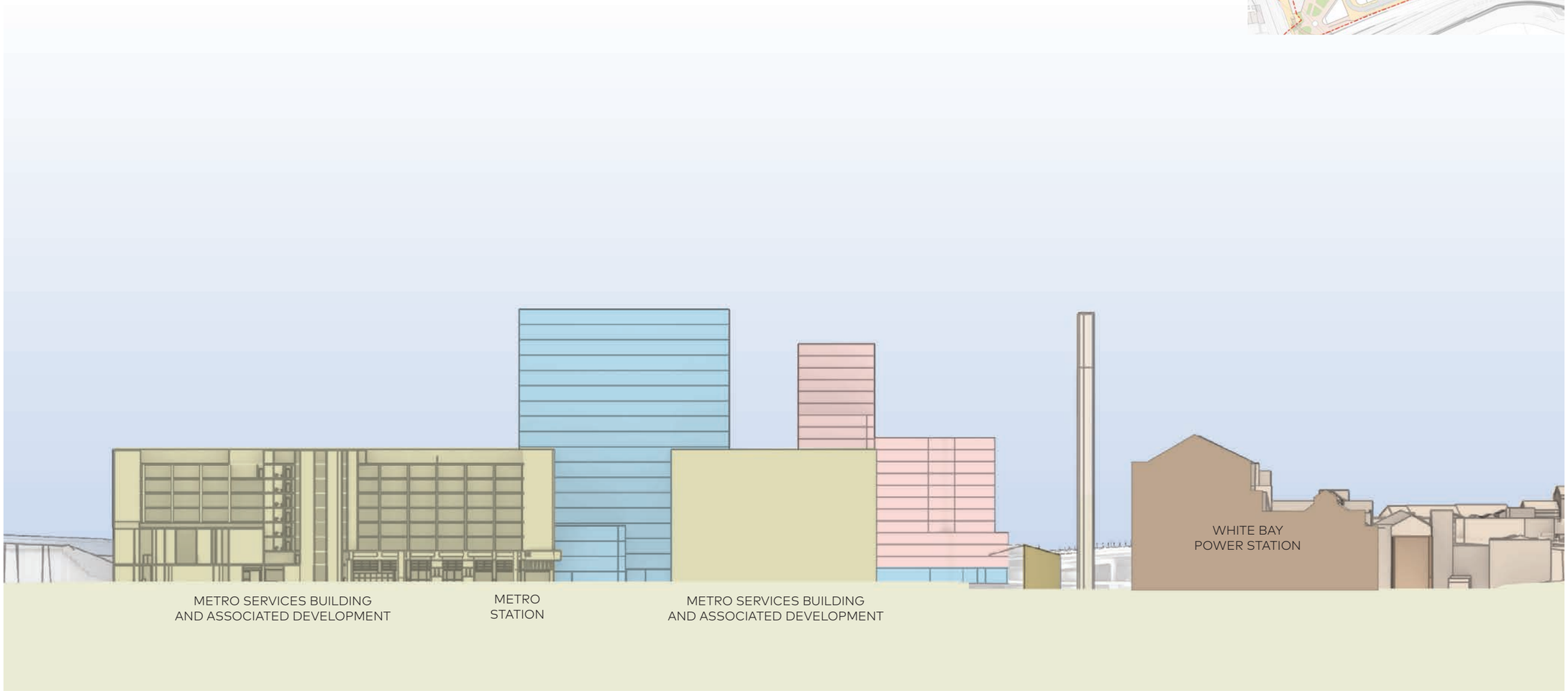
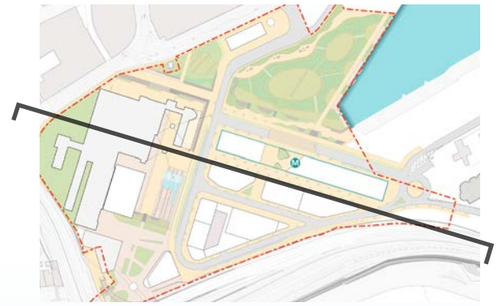


Figure 198: Section looking south through Metro, associated development and White Bay Power Station

Site Sections



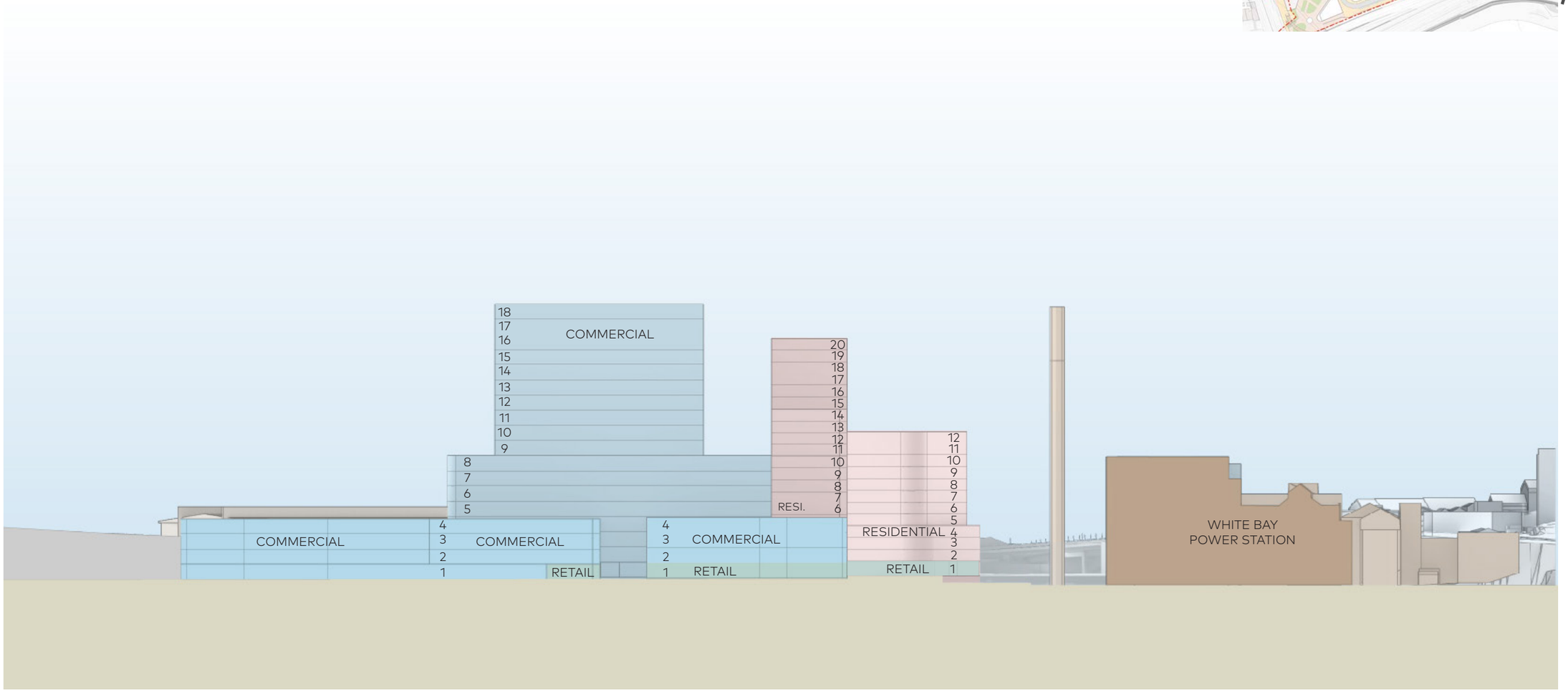
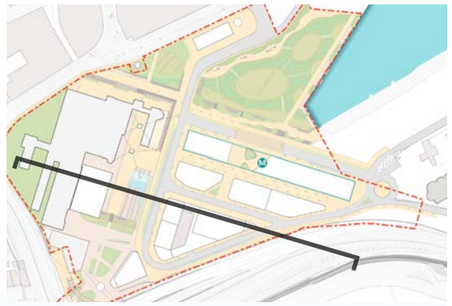


Figure 199: Section looking south through development south of Metro station and White Bay Power Station

Proof of Concept



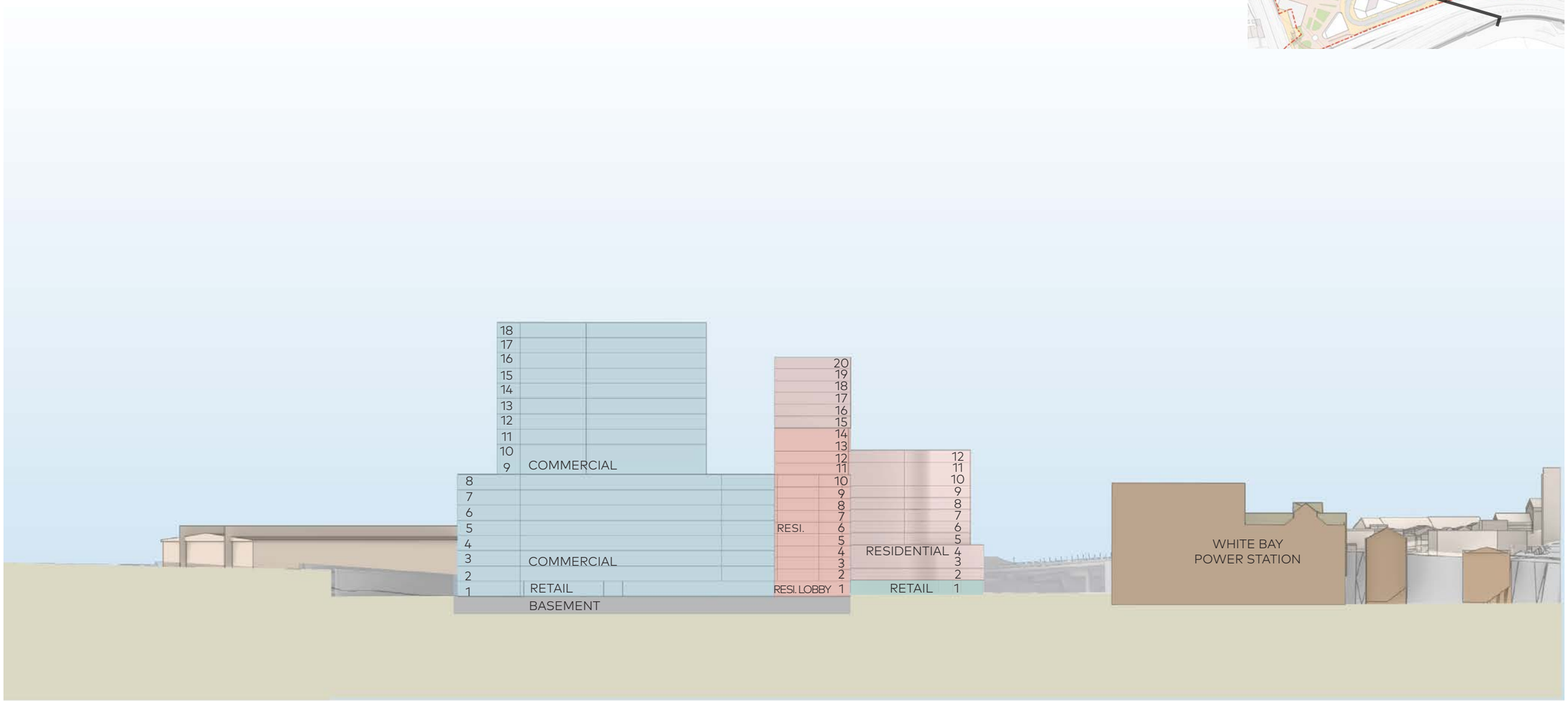
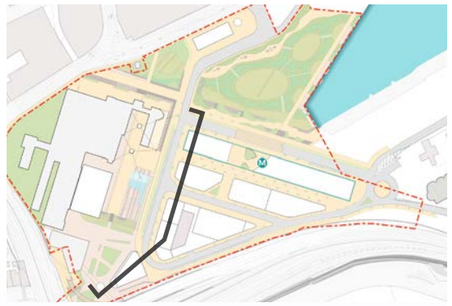


Figure 200: Section looking south through Southern Development Parcel, Boiler House and White Bay Power Station

Site Elevations



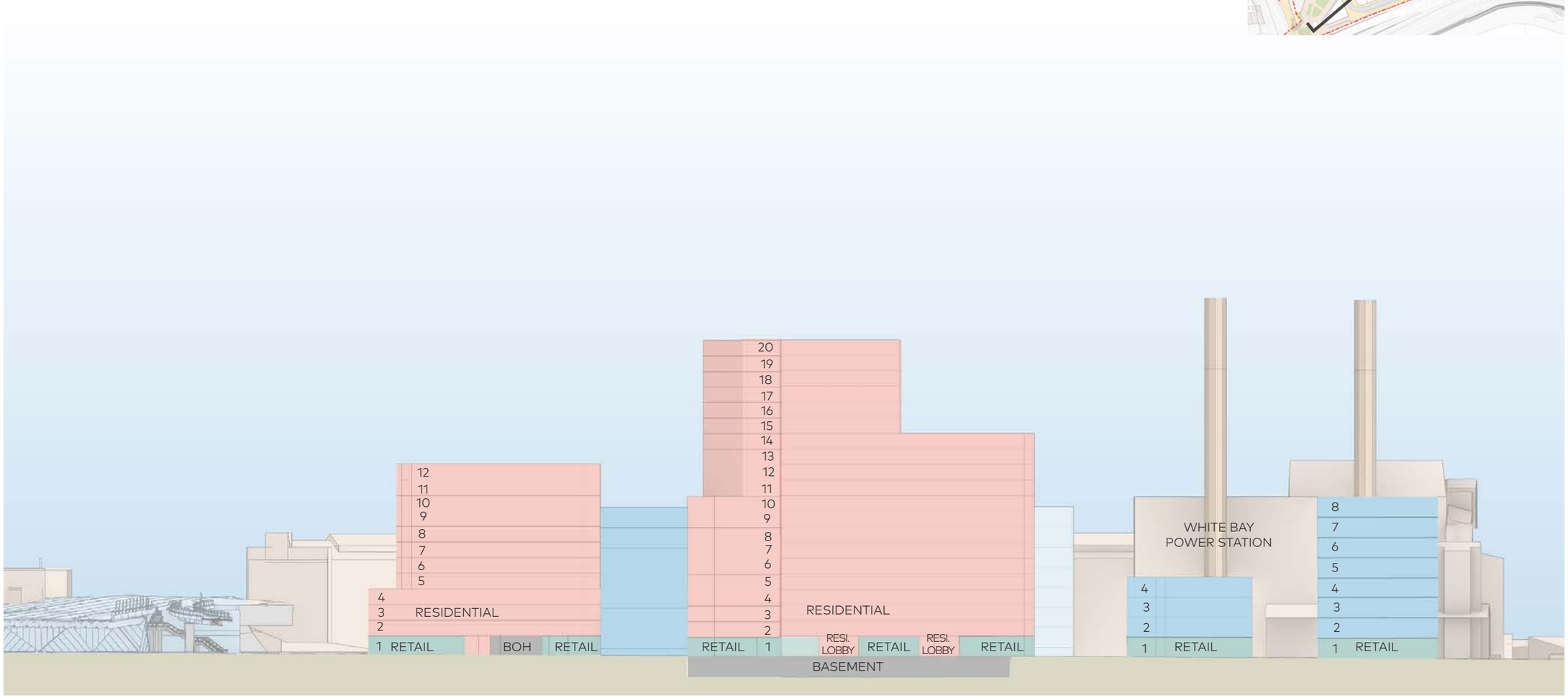
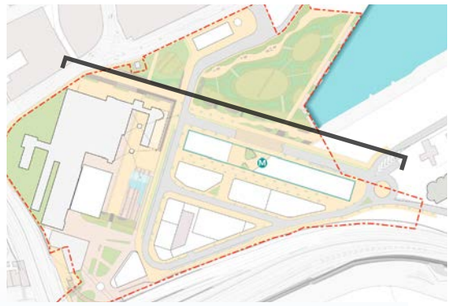


Figure 201: Section looking west through southern development and Metro Associated Development

Proof of Concept



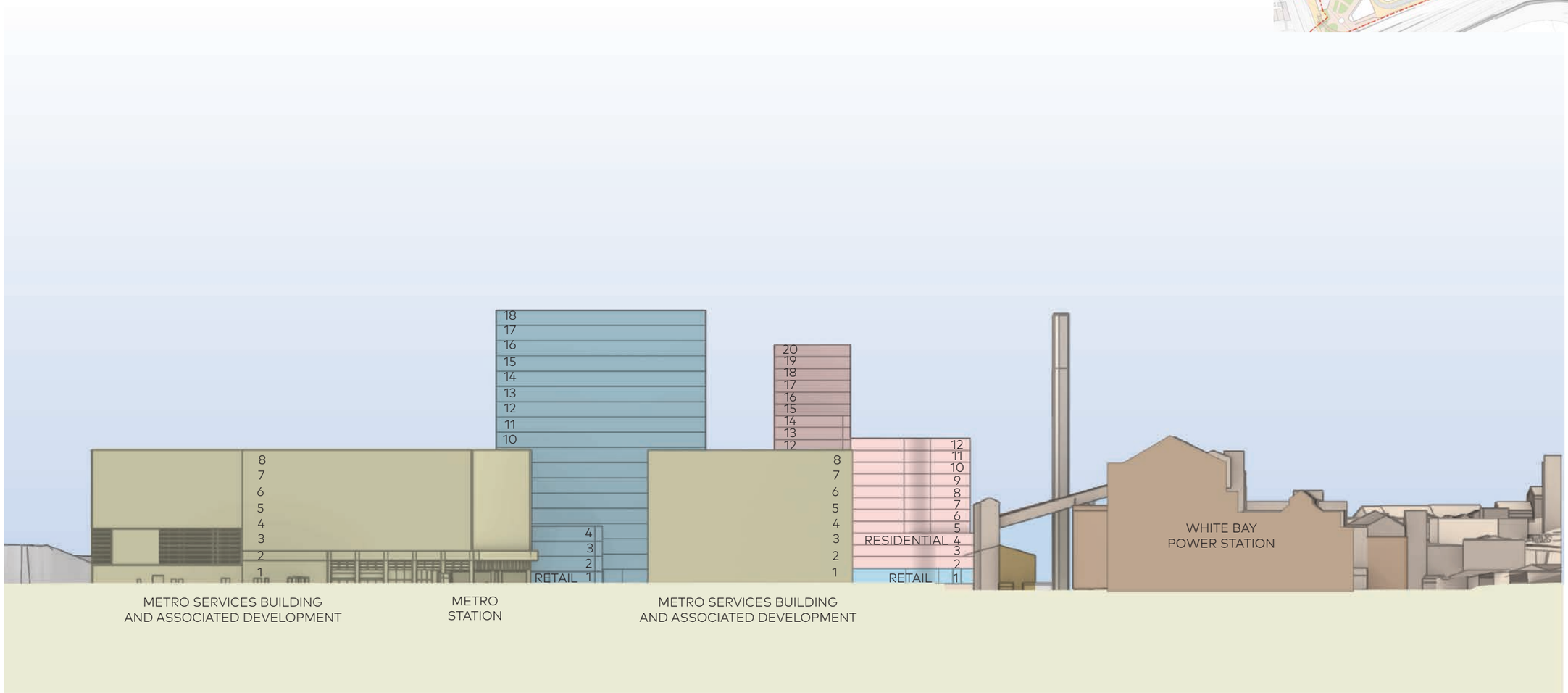


Figure 202: Elevation looking south

Site Elevations

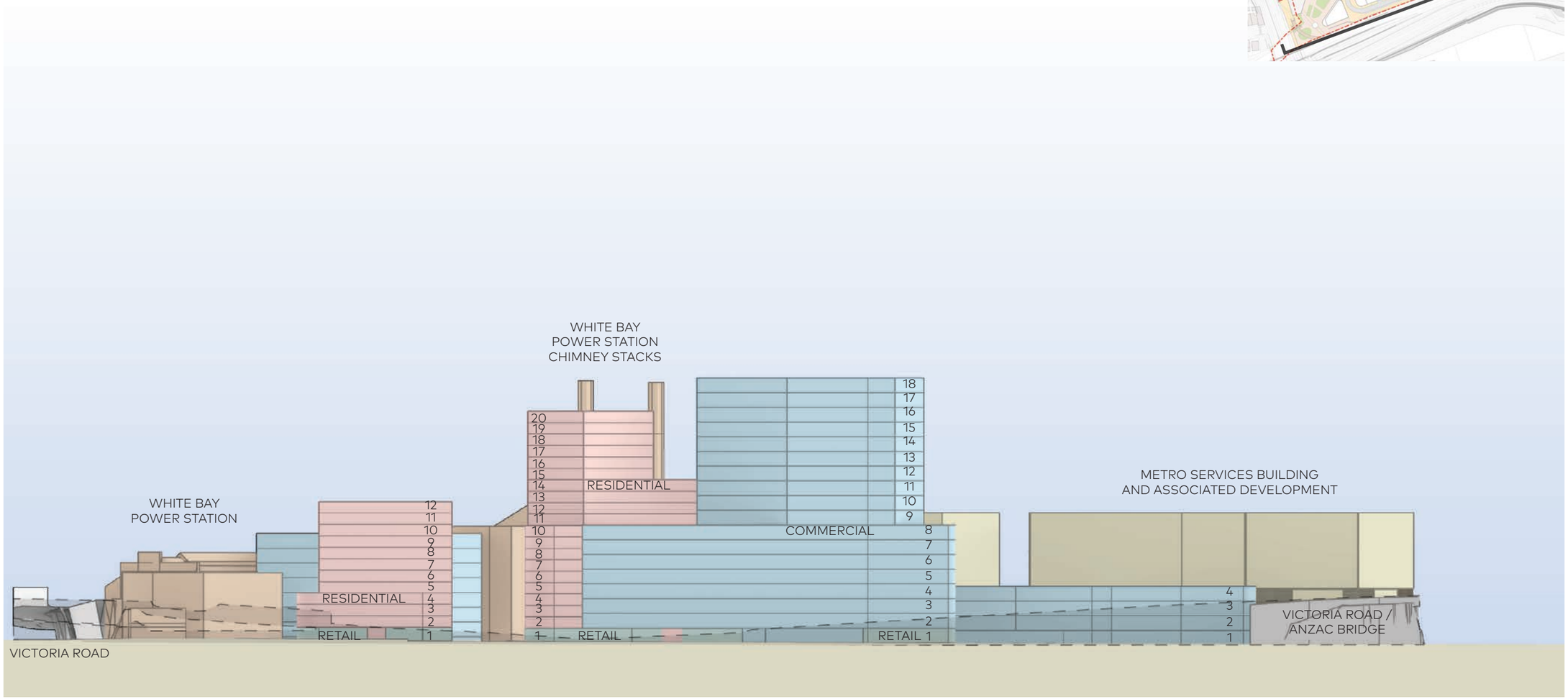
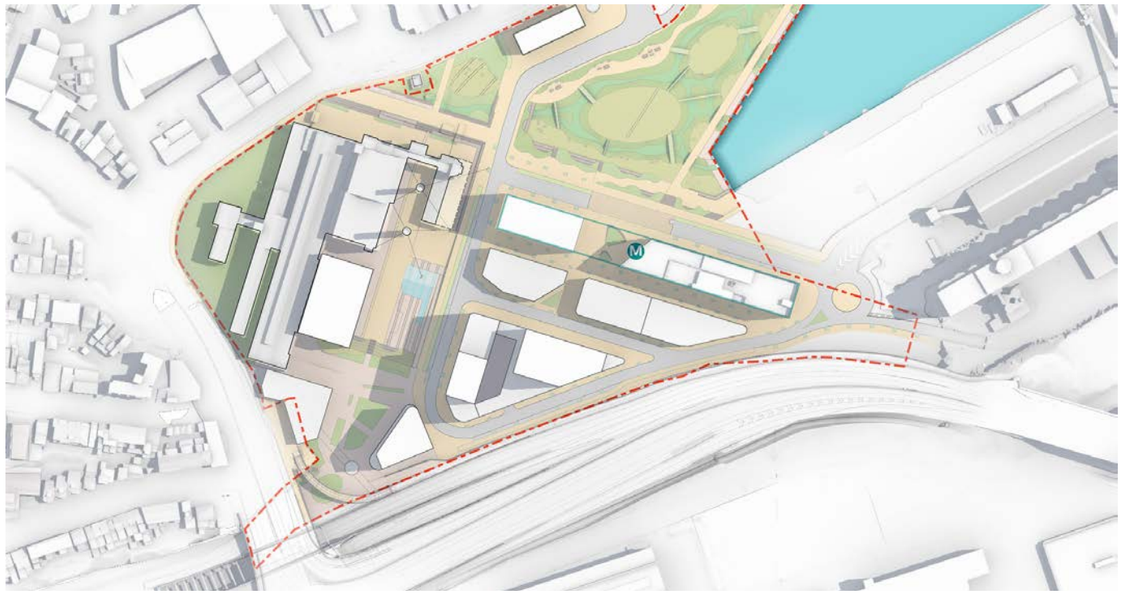


Figure 203: Elevation along the Anzac Bridge/Victoria Road Interface

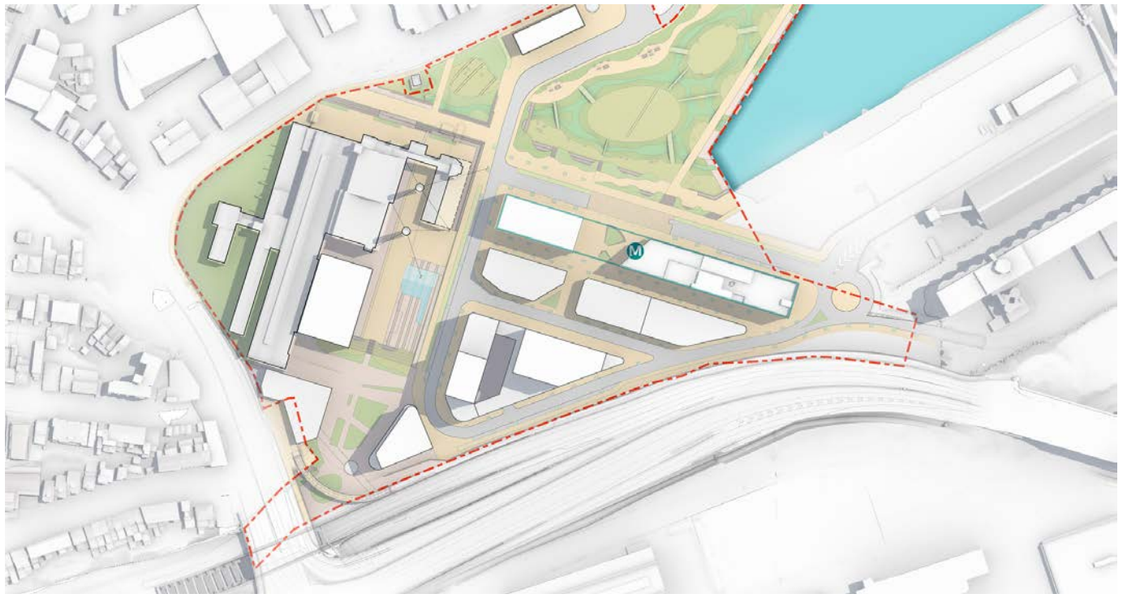
View looking east along the local bus street towards Anzac Bridge.
Development is indicative and subject to design development.

Shadow Analysis

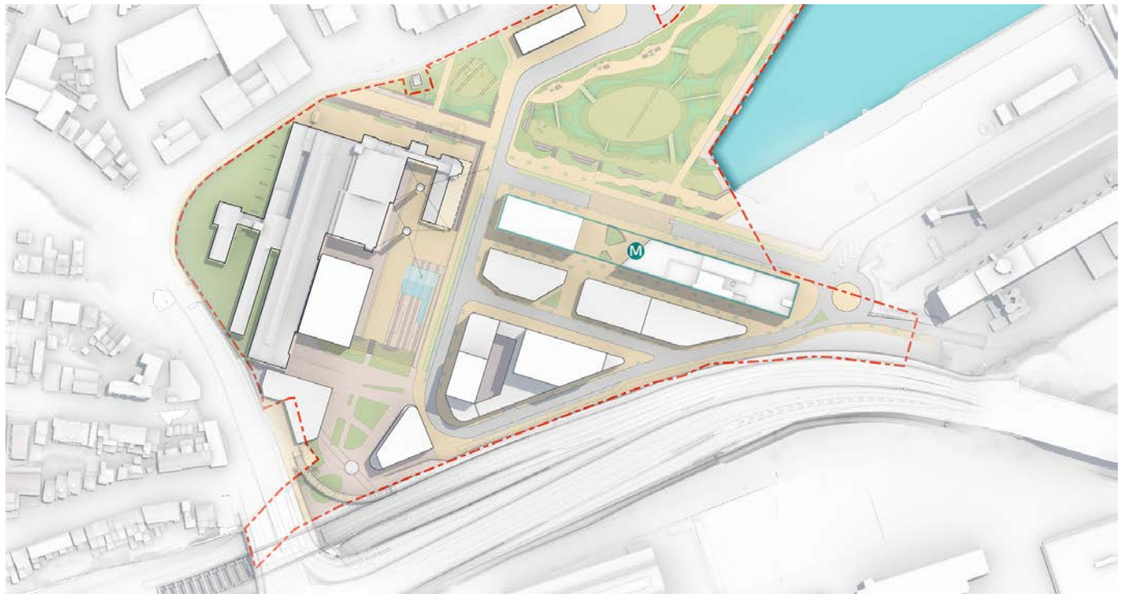
December 21nd



December 22nd - 9am

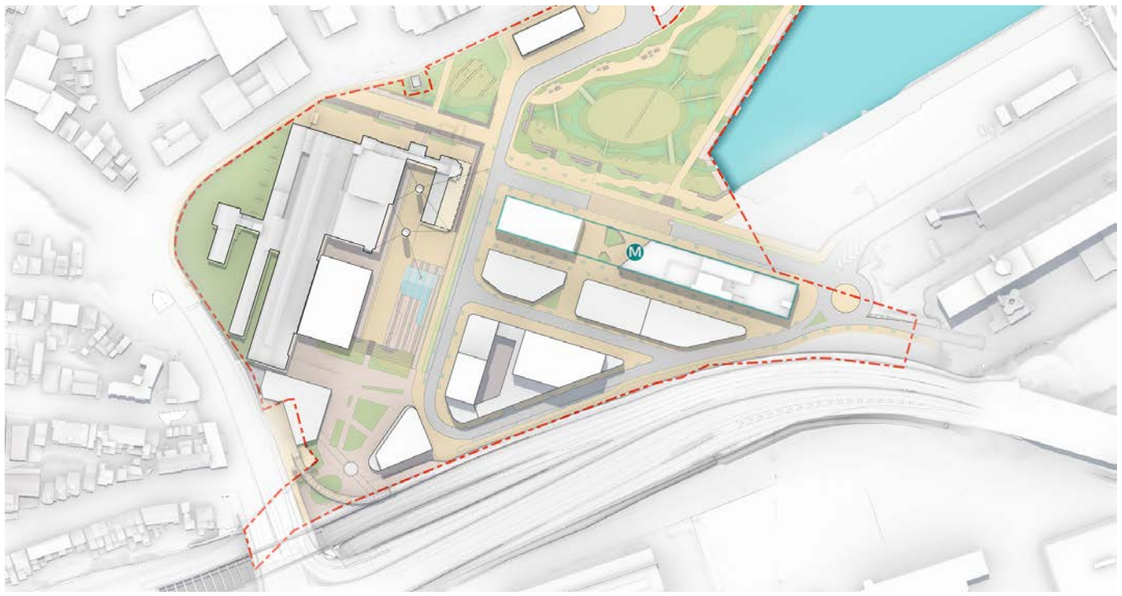


December 22nd - 10am

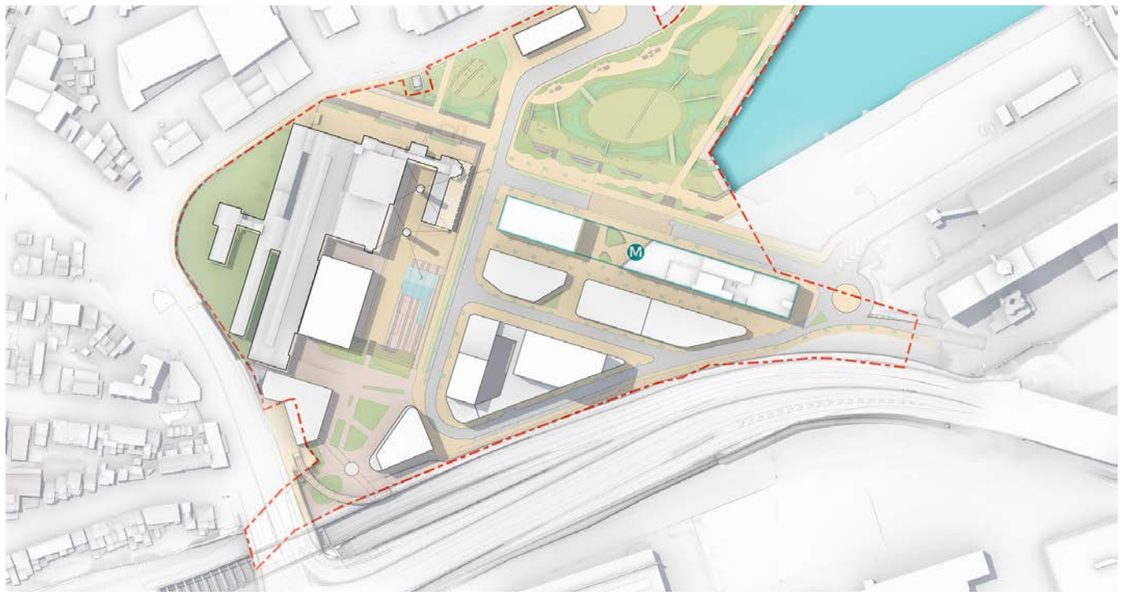


December 22nd - 11am

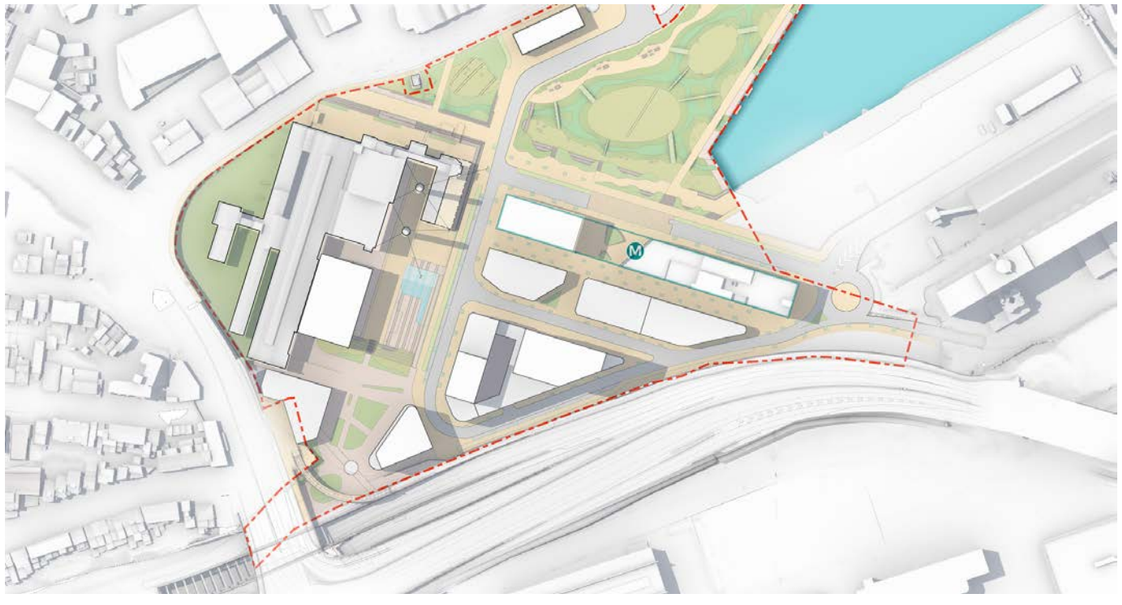
Shadow Analysis



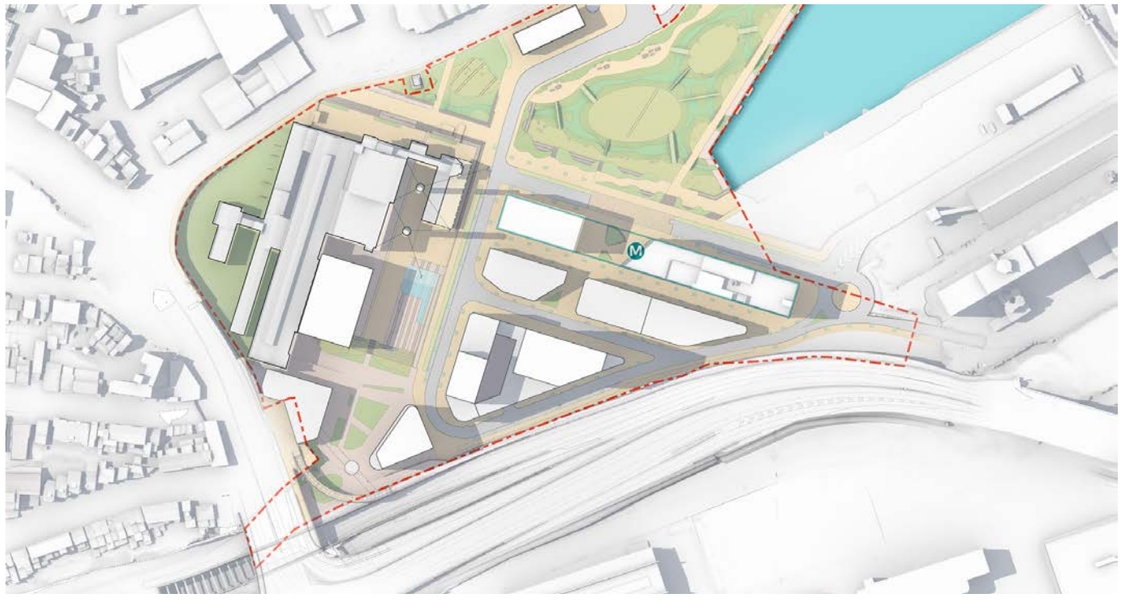
December 22nd - 12pm



December 22nd - 1pm

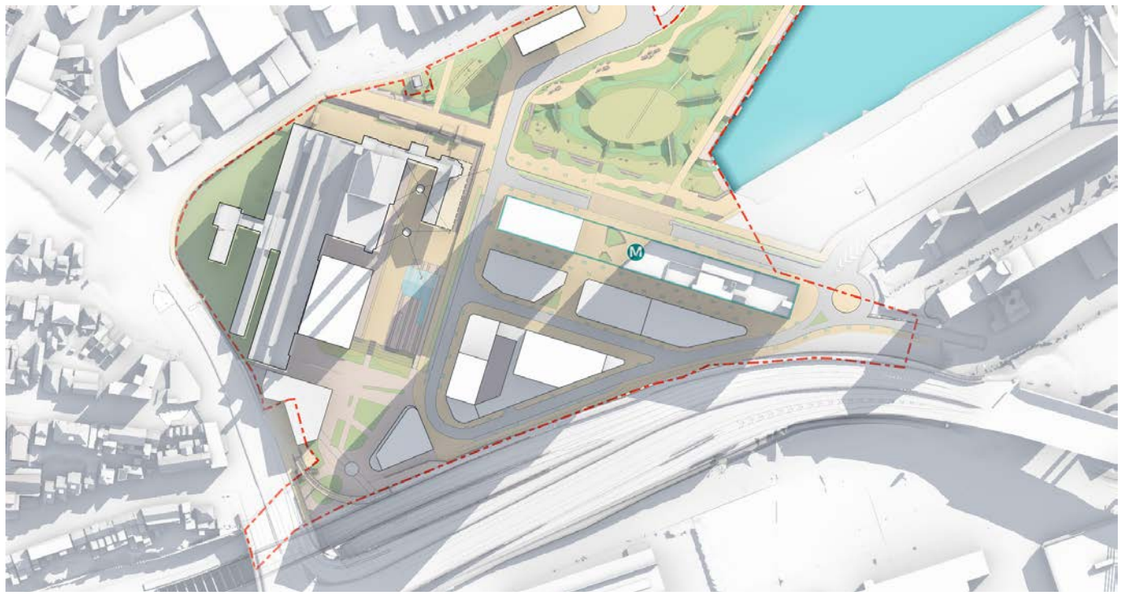


December 22nd - 2pm

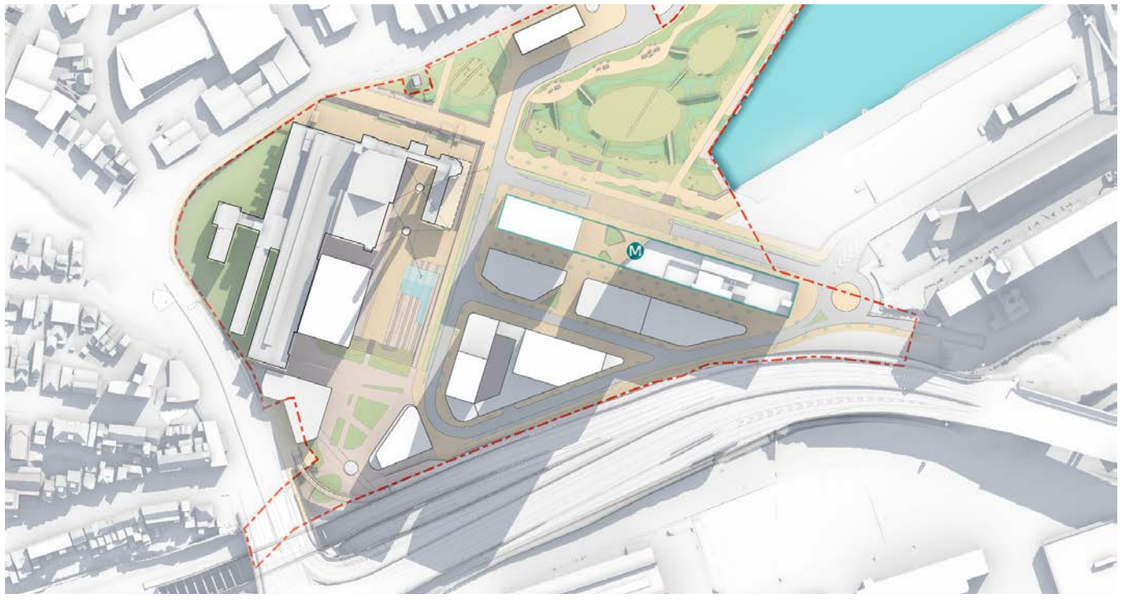


December 22nd - 3pm

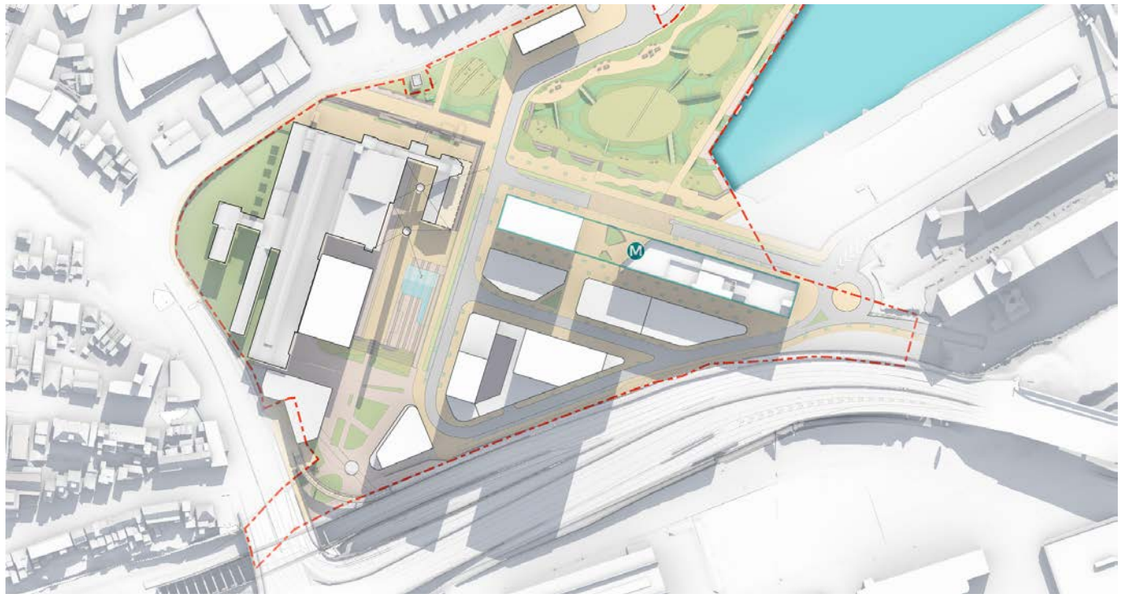
June 21st



June 21st - 9am

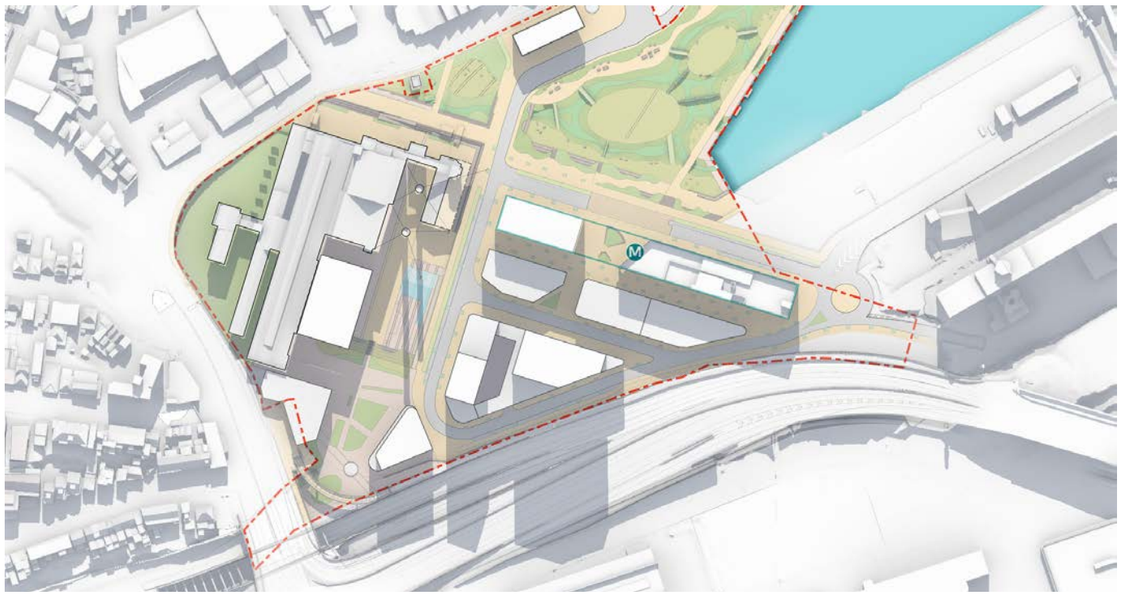


June 21st - 10am

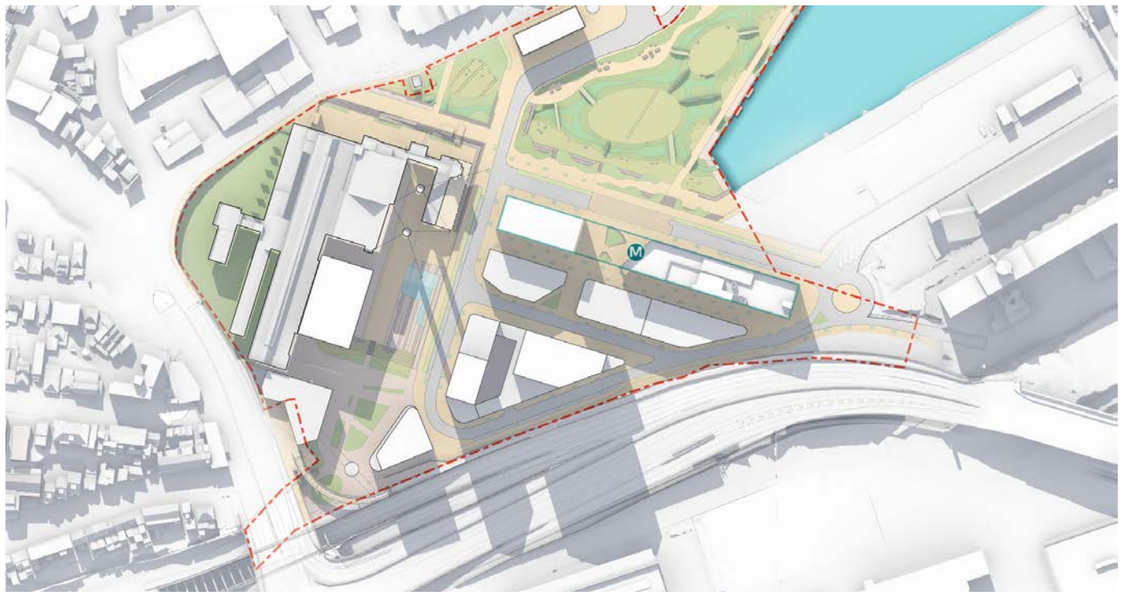


June 21st - 11am

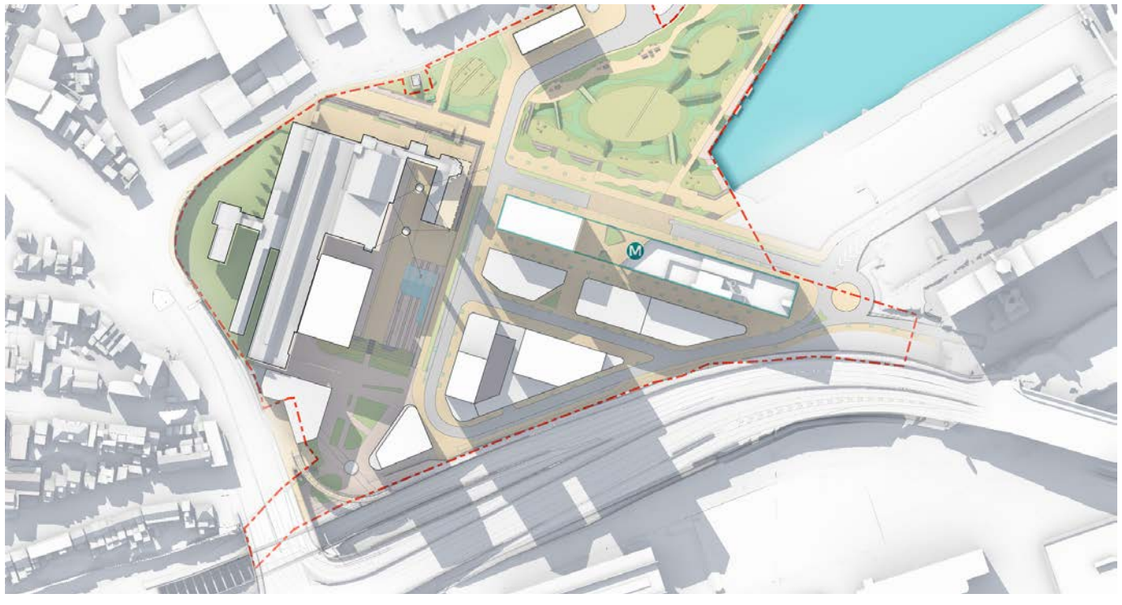
Shadow Analysis



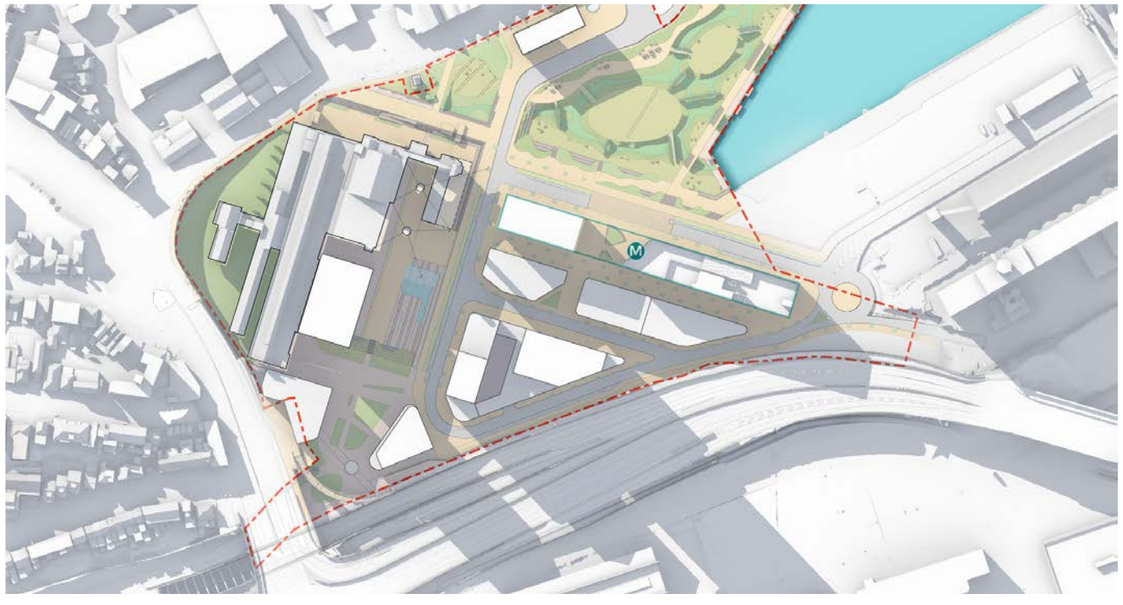
June 21st - 12pm



June 21st - 1pm



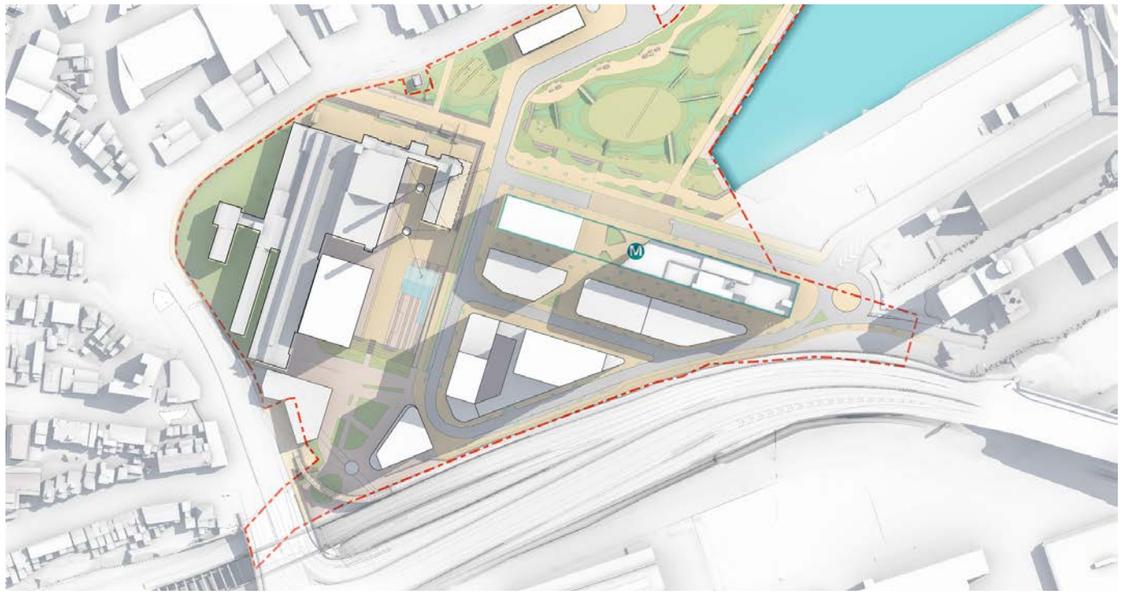
June 21st - 2pm



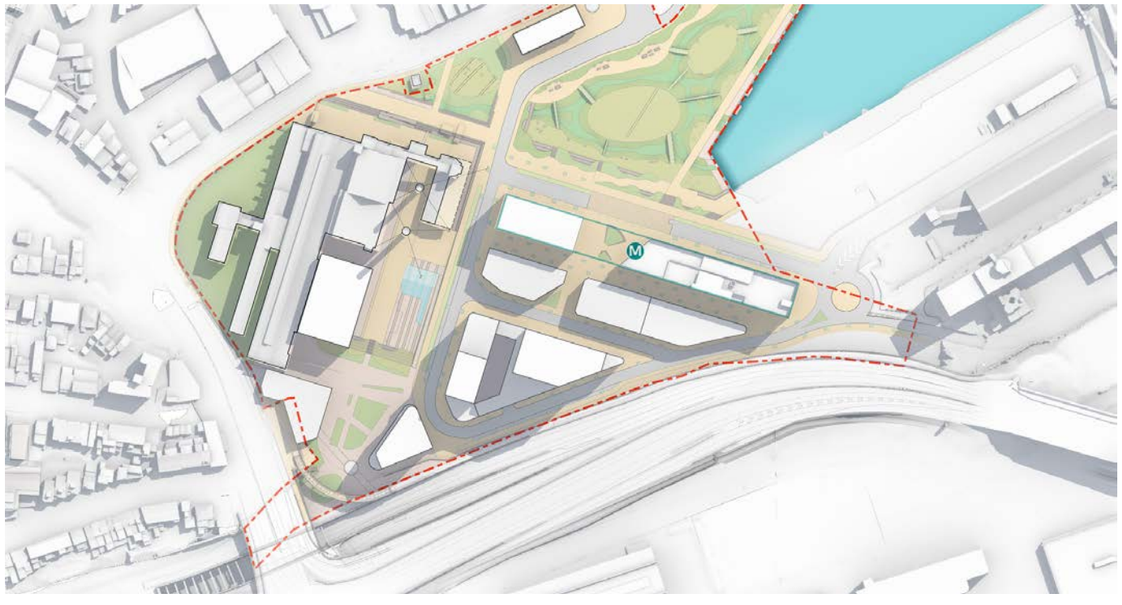
June 21st - 3pm

Shadow Analysis

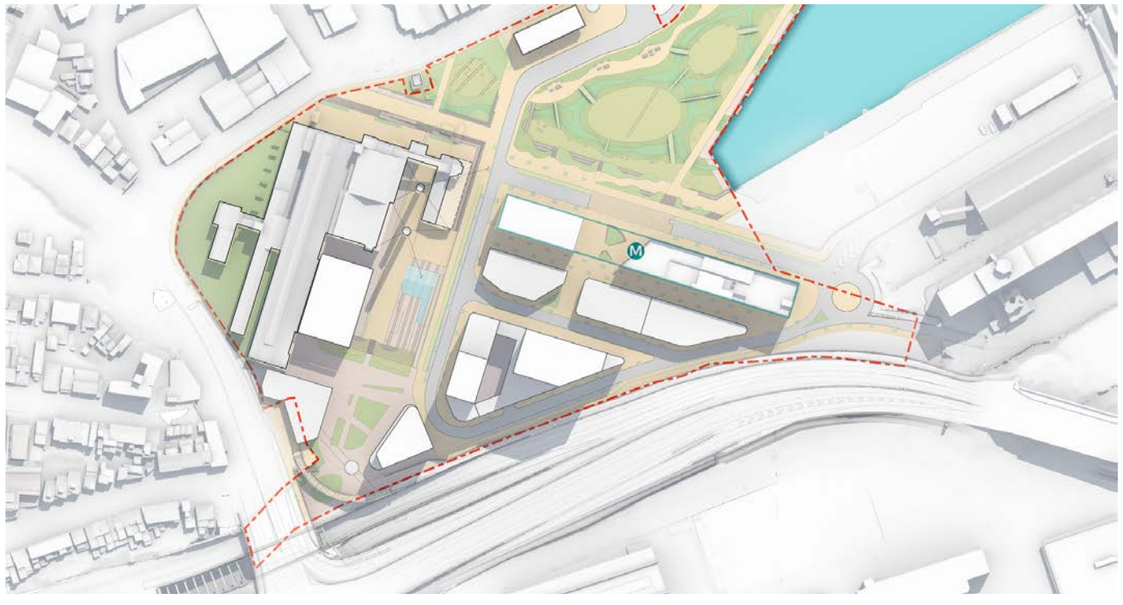
March 21st



March 21st - 9am



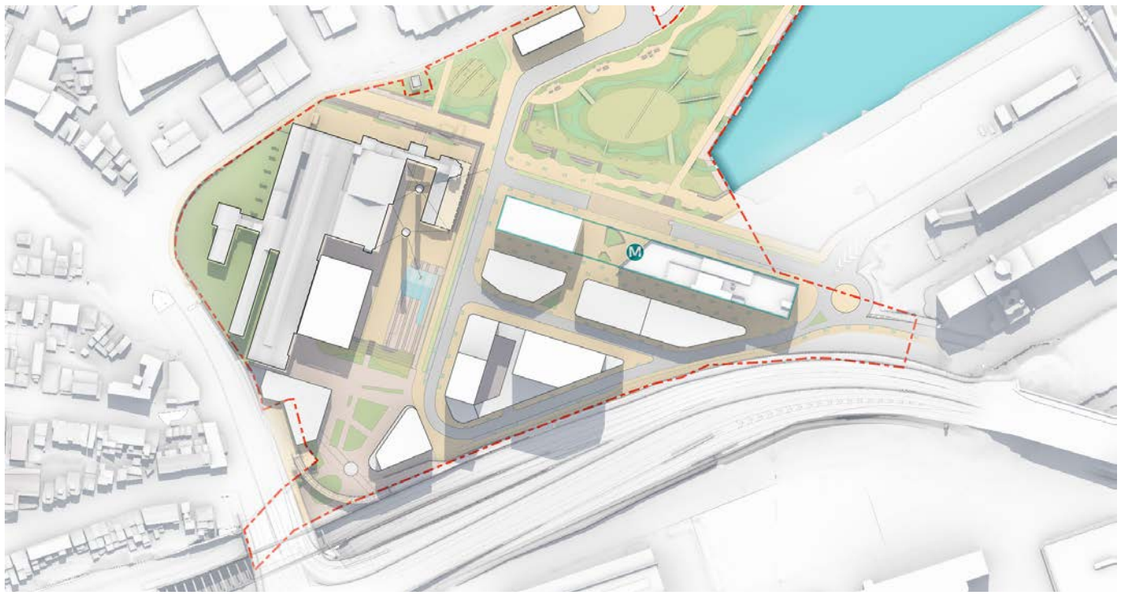
March 21st - 10am



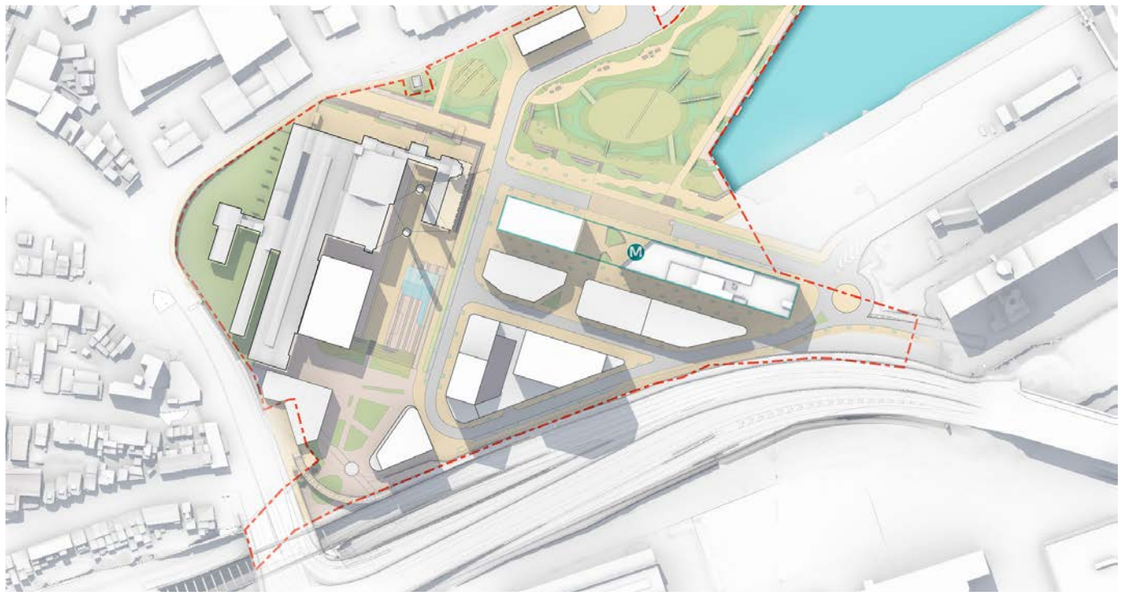
March 21st - 11am

Appendices

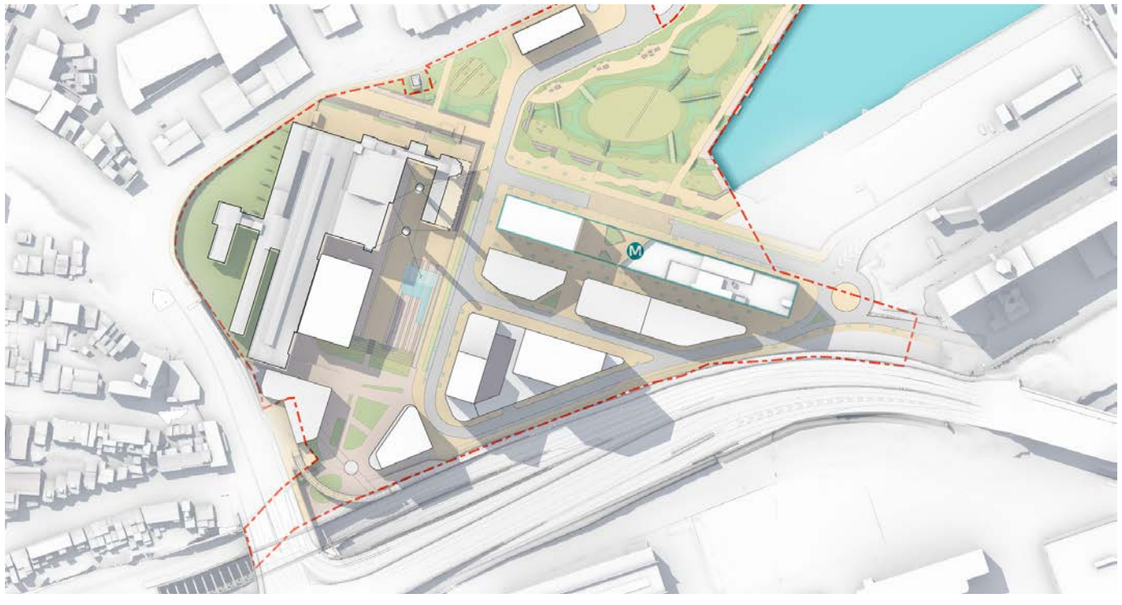
Shadow Analysis



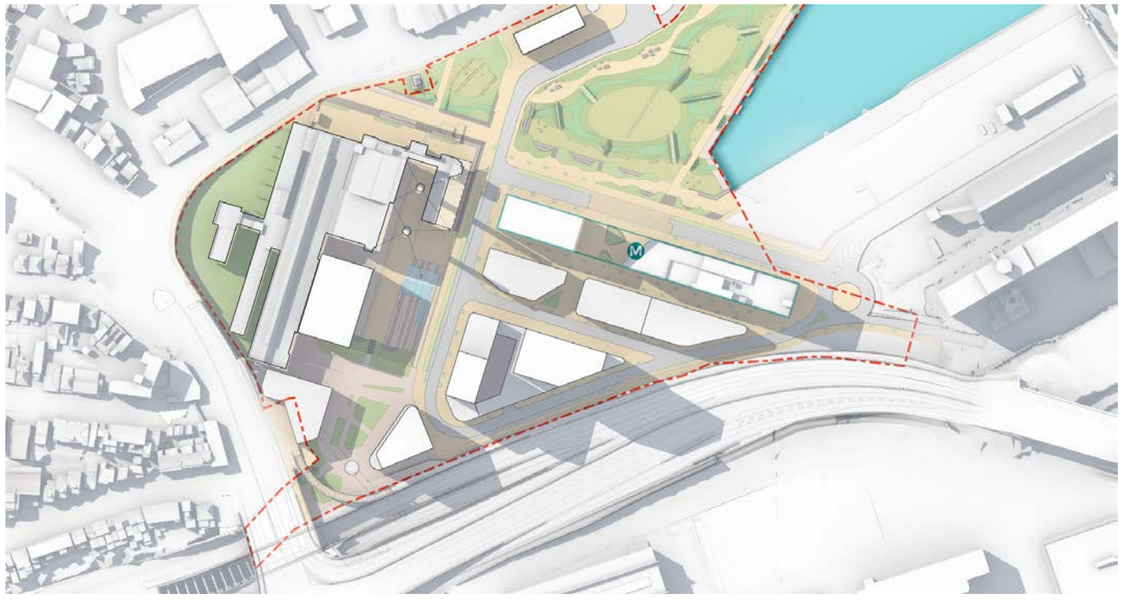
March 21st - 12pm



March 21st - 1pm



March 21st - 2pm



March 21st - 3pm

Solar Analysis

Minimum Proportion of Primary Open Space that receives 2 hours of sunlight between 9am and 3pm during the Winter Solstice for the plazas. Minimum 4 hours for the Future Park.

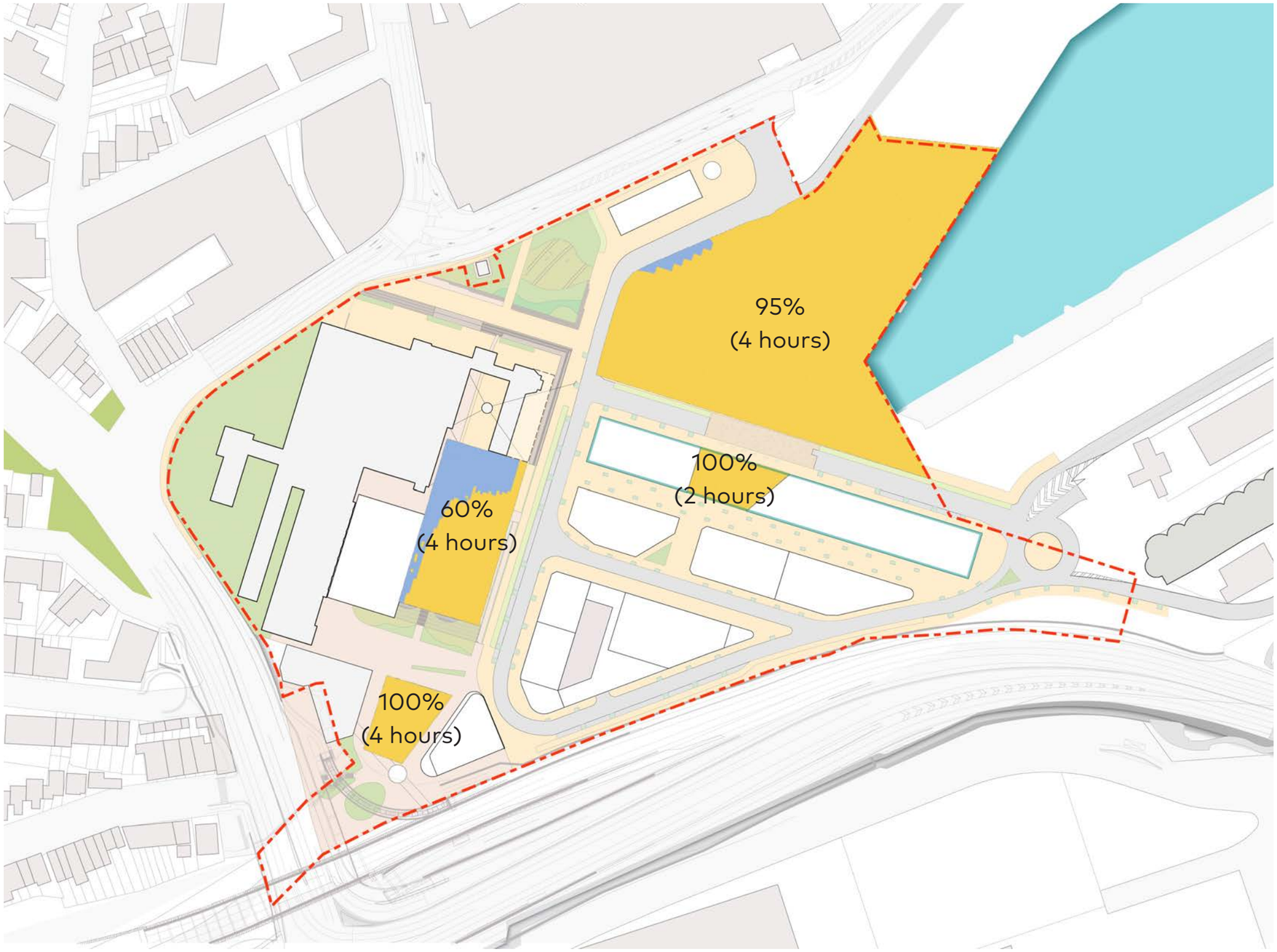


Figure 204: Solar Analysis