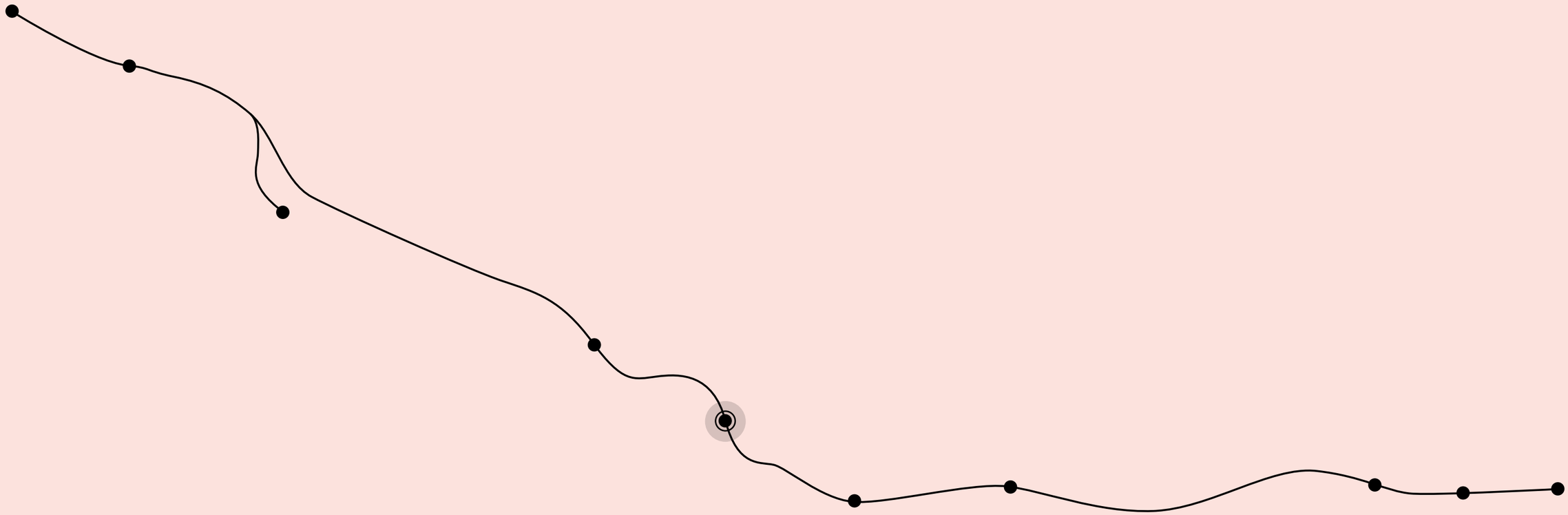
Appendix M

Site Specific Design Guidelines

Engineering Design &
Assurance Technical Partner

Associated Development

Appendix M
Site Specific Design Guidelines



Sydney Metro West

Sydney Olympic Park

SEP 2022 REV F

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Content

1

Introduction

1.1 Purpose of the document

The purpose of this document is to guide the design of the Sydney Olympic Park metro station precinct and provide a reference document for the assessment of design outcomes. The design parameters include built form, heritage, integration with the public domain and Sydney Metro station, movement and connectivity and legacy outcomes of the development. These have been prepared with reference to:

- GANSW Better Placed
- GANSW Implementing Good Design
- GANSW Evaluating Good Design
- GANSW Greener Places
- GANSW Greener Places Design Guide
- GANSW Draft Guide for Heritage
- NSW Local Character and Place Guideline

Together with the Sydney Metro West Station and Precinct Design Guidelines, these Site-specific Design Guidelines provide a consistent framework for design across the integrated station development and should be considered in conjunction with the Sydney Metro West Design Excellence Strategy (demonstrated below).

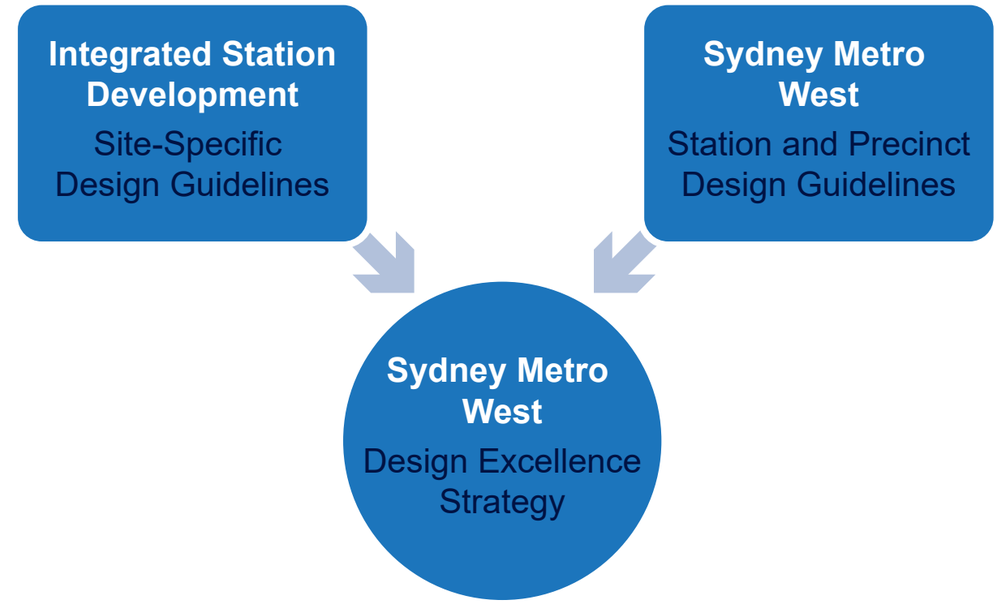


Figure 1: Sydney Metro West design excellence framework

1.2 Sydney Metro design objectives

The design outcomes for the Sydney Olympic Park metro station precinct are underpinned by the design objectives for all Sydney Metro projects.

Designs for the station, over station and adjacent station developments must deliver on the following.

Design Objective	
Ensuring an easy customer experience.	Sydney Metro places the customer first. Stations are welcoming and intuitive with simple, uncluttered spaces that ensure a comfortable, enjoyable and safe experience for a diverse range of customers.
Being part of a fully integrated transport system.	Sydney Metro is a transit-oriented project that prioritises clear and legible connections with other public and active transport modes within the wider metropolitan travel network that intersect with this new spine.
Being a catalyst for positive change.	Sydney Metro is a landmark opportunity to regenerate and invigorate the city with new stations and associated development that engage with their precincts, raise the urban quality and enhance the overall experience of the city.
Being responsive to distinct contexts and communities.	Sydney Metro's identity is stronger for the unique conditions of centres and communities through which it passes. This local character is to be embraced through internationally benchmarked high quality station architecture and public domain that is well integrated with the valuable inherited urban fabric of existing places.
Delivering an enduring and sustainable legacy for Sydney	Sydney Metro is a positive legacy for future genera-tions. A high standard of design across the corridor, stations and station precincts, that sets a new benchmark, is vital to ensuring the longevity of the Metro system, its enduring contribution to civic life and an ability to adapt to a changing city over time.

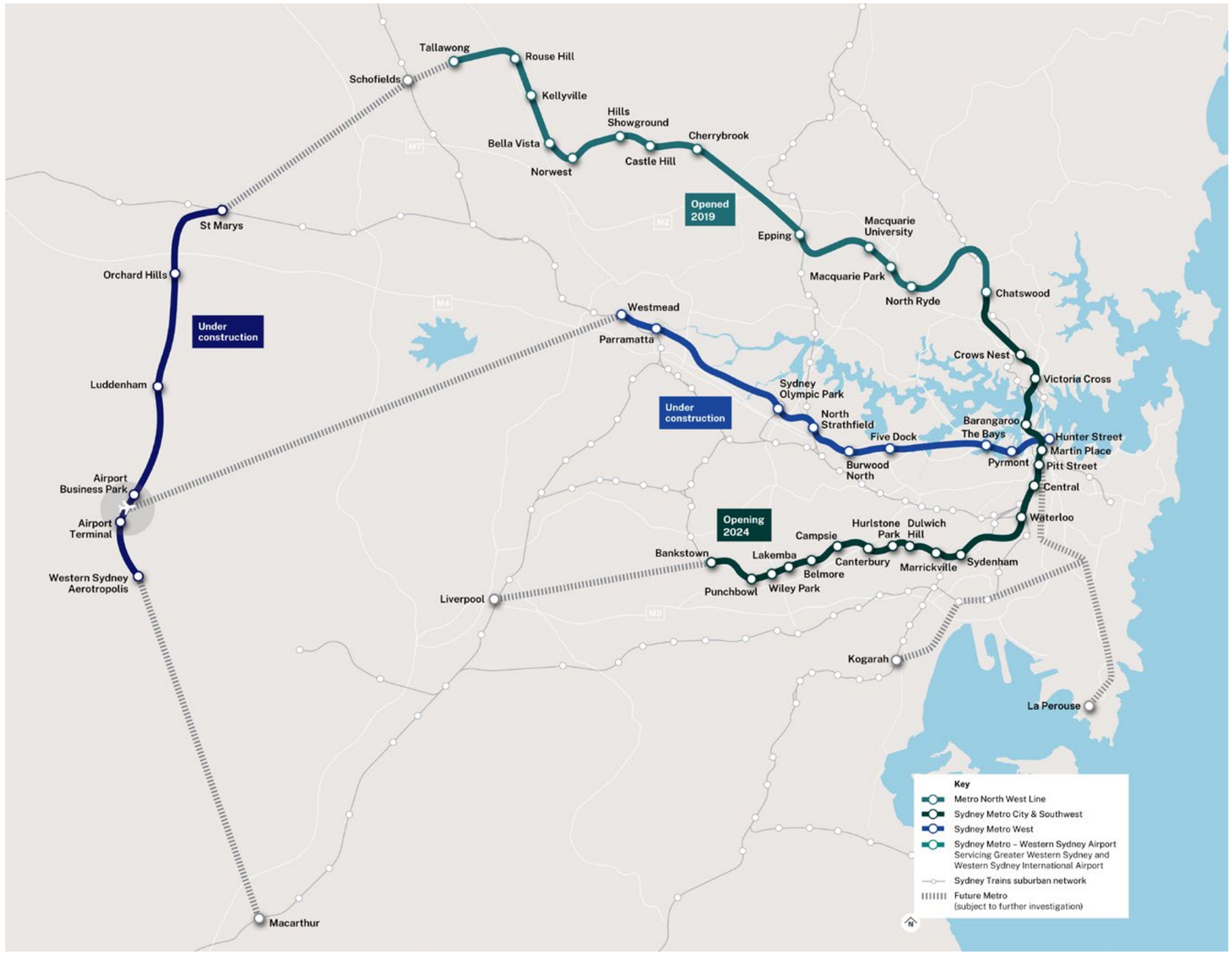


Figure 2: Sydney Metro network

1.3 Sydney Metro West design guidelines

The Sydney Metro West Station and Precinct design guidelines form part of the EIS for the Sydney Metro West Stage 3 CSSI application and establish design standards to guide the interface outcomes between stations and their surrounding locality.

The design guidelines make reference to precinct wide design elements such as heritage, environment and sustainability.

The Station and Precinct design guidelines provide the following key design drivers and urban design strategies for the Sydney Olympic Park station precinct. As a component of the Stage 3 CSSI application, these drivers and strategies are to inform the design response for the Sydney Olympic Park site.

Place and design principles

- Support the creation of a new town centre and reinforce Sydney Olympic Park as a premier destination for major events in line with the principles outlined in the Sydney Olympic Park 2030 masterplan.
- Deliver a station and public domain designed to support day to day activities and flexibility to accommodate major events and periodic large crowds.
- Facilitate east-west access from Olympic Boulevard to the station and town centre to accommodate event crowds.
- Enhance permeability with new pedestrian links and connections to places within the wider station precinct supported by active street frontages, and new open spaces.

Ensure the station provides easy, safe and intuitive interchange with other modes of transport, during day to day operation and events.

Urban Design Strategies - Summary	
Land Use and Function	• Support an intense mixed use precinct with retail, commercial offices, hospitality, residential, education, community uses, and entertainment and live music venues. • Support a diverse range of businesses and uses to create a vibrant day and night-time economy and activate the public domain. • Maximise active frontages along streets and laneways with retail and dining to support a vibrant town centre. • Encourage multiple tenancies with high activity and seating overlooking Central Urban Park and through site links. • Allow for fine grain retail uses along the new through site links.
Places and Spaces	• Design Central Urban Park, a centrally located publicly accessible green space, as the focal point for the town centre, to support a range of informal active and passive recreation activities with places to meet, sit, pause and engage. • Design a prominent metro station entry fronting the station plaza as a local focal point. • Provide generous soft landscaping, tree planting, areas with seating and create a sense of arrival. • Provide a direct and safe publicly accessible pedestrian link, Central Spine Promenade, from Figtree Drive to Herb Elliot Avenue to create a direct pedestrian connection through the town centre connecting the bus interchange with the metro station, station plaza, Central Urban Park and onwards to the wider Sydney Olympic Park precinct.
Access and Connectivity	• Provide the site layout and hierarchy of connected public open spaces, streets, laneways and links to form the new town centre precinct structure. • Design all new streets to accommodate low volumes of vehicles moving at a lower speed. • Ensure public spaces are accessible to all, safe and open 24 hours a day. • Provide fully accessible pedestrian connections to the bus interchange.

2

Site overview

2.1 Location

The site is located between the Parramatta CBD and Central Sydney CBD, approximately 13km to the east of Sydney CBD and 11km to the west of Parramatta CBD.

Nearby strategic centres include Burwood and Rhodes and town centres at Auburn and Strathfield. Parramatta is the nearest metropolitan centre containing major infrastructure, commercial and residential development while Strathfield and Burwood are rapidly growing centres also in the vicinity of the site.

The development site is located within Sydney Olympic Park and is situated within the City of Parramatta Local Government Area (LGA). The site is in the Central Precinct of Sydney Olympic Park and defined as Site 47 in the SOPA Master Plan (Interim Metro Review).

Metro Site Boundary

Site 47 Boundary

Figure 3: Location Plan

2.2 Existing and future public transport

The proposed Sydney Olympic Park metro station is located south of the existing Sydney Trains station in the heart of the growing Sydney Olympic Park Central Precinct. The station is located to the east of Olympic Boulevard between Herb Elliott Avenue and Figtree Drive. The station is required to operate efficiently during two 'modes', providing large scale-spaces for crowd marshalling during major events of over 25,000 people as well as creating a human-scaled experience for day-to-day users.

During day-to-day use, Dawn Fraser Avenue and Herb Elliot Avenue are the existing main pedestrian streets of the locality. SOPA's planned renewal of the Central Precinct will create new pedestrian priority streets with a finer grain street network and convert these existing streets to vehicular transport routes. A new street parallel and to the south of Herb Elliot Avenue will become the primary east-west pedestrian spine of the Central Precinct in the future. Olympic Boulevard is the major north-south pedestrian spine primarily used during events.

A future bus interchange, adjacent to the development site on Figtree Drive, is proposed to connect the wider precinct with the wider Sydney Region, through the future Metro station.

- Bus Route
- Bus Stop
- Train Route
- Sydney Olympic Park Train Station

Existing

- Proposed Metro Station
- Proposed Bus Route
- Future Bus Interchange
- Future Light Rail Stop
- Site 47 Boundary

Proposed

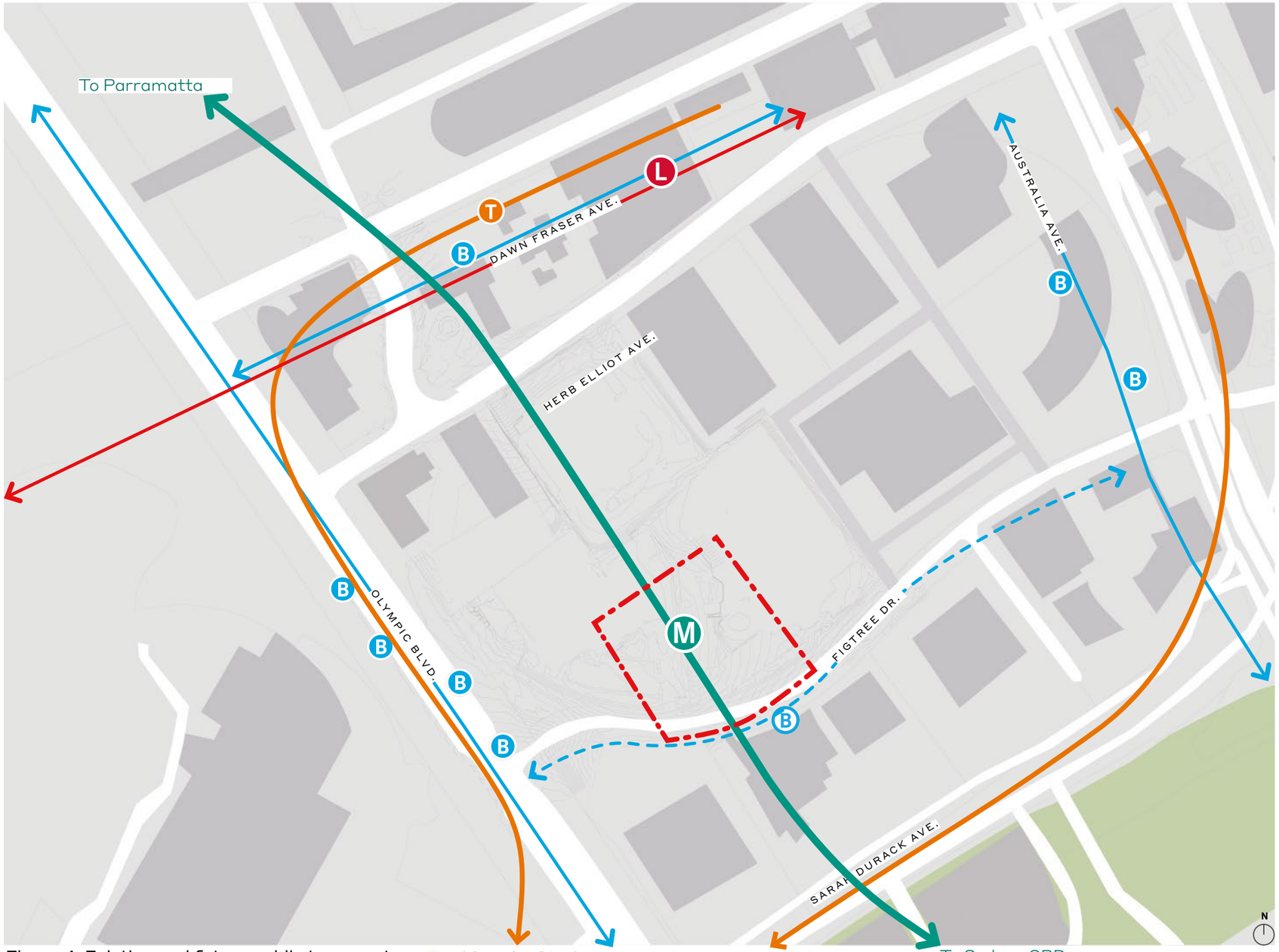


Figure 4: Existing and future public transport

2.3 Pedestrian movement and cycling routes

Existing pedestrian movement is mostly along Olympic Boulevard, Dawn Fraser Avenue and Australian Avenue. Additionally, Sydney Olympic Park has been widely known as a cycling centre given its vast cycling routes and great connections.

Future amendments to the SOP Master Plan will further develop pedestrian movement, making it a priority in the Central Precinct, and build upon cycling legacy by further extending the existing cycling network.

Proposed Pedestrian Crossing
Metro Station Entry
Proposed Metro Station
Existing Bicycle Route
Proposed Walking Route
Future Central Pedestrian Area
Site 47 Boundary

Figure 5: Pedestrian movement and cycling routes

2.4 Precinct Vision

The construction of Sydney Metro West represents an exciting opportunity to incorporate global best practice for place-making and environmentally sustainable development, and to apply innovative thinking to create new city icons. The delivery of integrated station and precinct development enables Sydney Metro to be more than just a transport project, but also a defining city building opportunity that revitalises precincts and communities, helping to leave a lasting legacy and shaping Sydney for generations to come. The proposed development will create a great place-based outcome that successfully integrates transport infrastructure, open space, ground plane retail, commercial and residential land uses.

The Sydney Olympic Park metro station will link new communities, support employment growth and diversity of housing supply.

The Sydney Olympic Park metro station precinct acknowledges growth opportunities within Sydney Olympic Park and seeks to establish parameters to attract more businesses and residents in a well-connected location reducing reliance on private transport modes whilst continuing to ensure Sydney Olympic Park can operate and function as a world class event and sporting precinct.

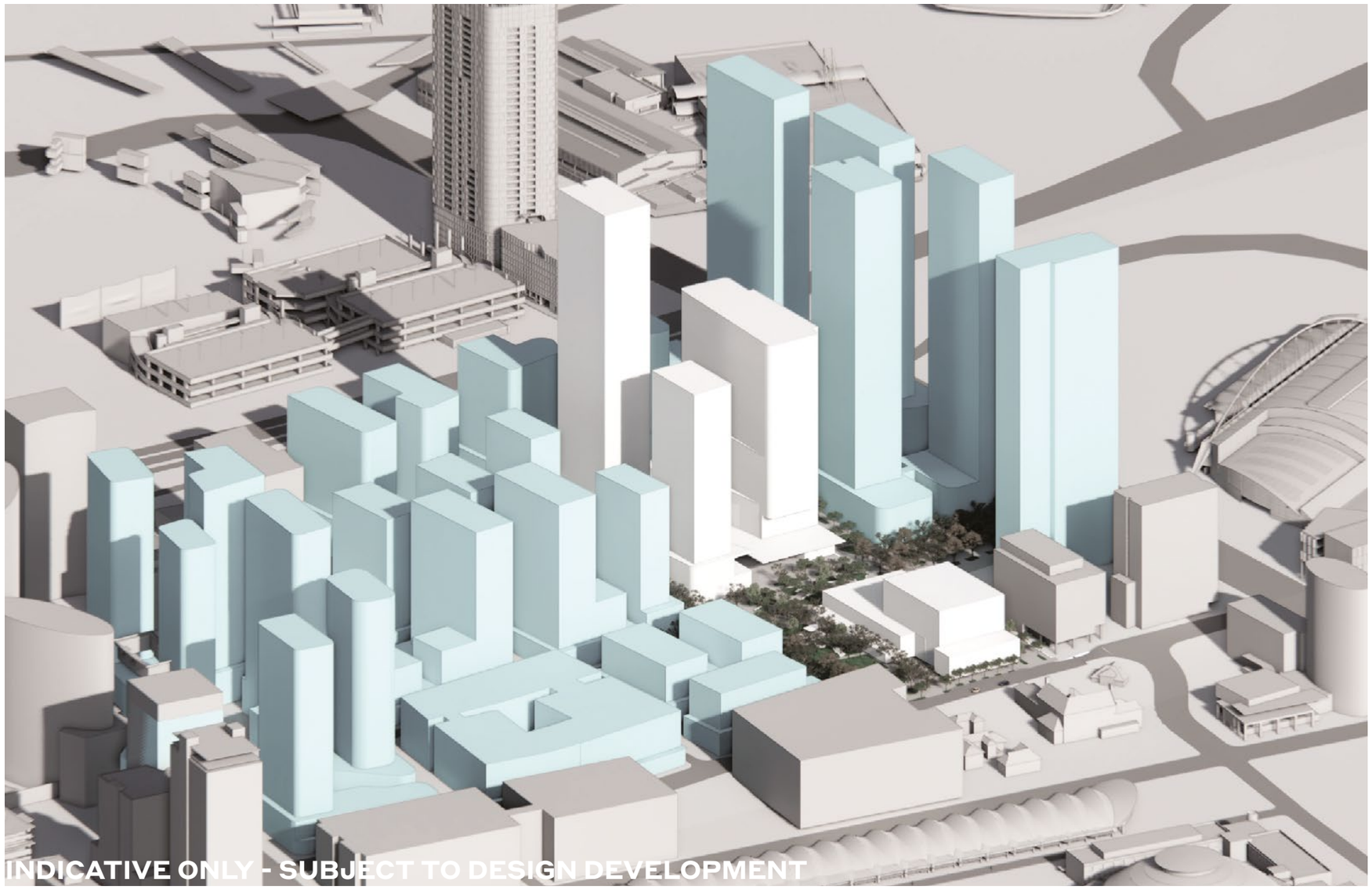


Figure 6: Aerial View - Sydney Olympic Park

2.5 Overview of the proposal

The proposed development on the subject site comprises of three buildings with their podiums. Building 1 podium is formed by station entries and station services buildings, and therefore part of SSI scope

Building 1 is a 16 storey (21 with podium levels) envelope located directly above the station services building.

Building 2 and 3 are residential buildings with adjoining 4 storeys podiums. Building 2 envelope is set to 27 Storeys while Building 3 is maximised to achieve 45 Storeys.

Site Area	11,407 m^2
Residential GFA	32,790 m^2
Retail GFA	1,760 m^2
Commercial GFA	32,820 m^2
SSI GFA*	630 m^2
Total GFA	**68,000 m^2**
Parking	358
FSR*	**5.96:1**

Indicative Residential Buildings

Indicative Non-Residential Buildings

Sydney Olympic Park SSI Scope

Existing Buildings

*NOTE:

GFA and FSR calculations include floor space attributed to the station which will be subject to a separate planning approval under CSSI Stage 3 Application and may be subject to change

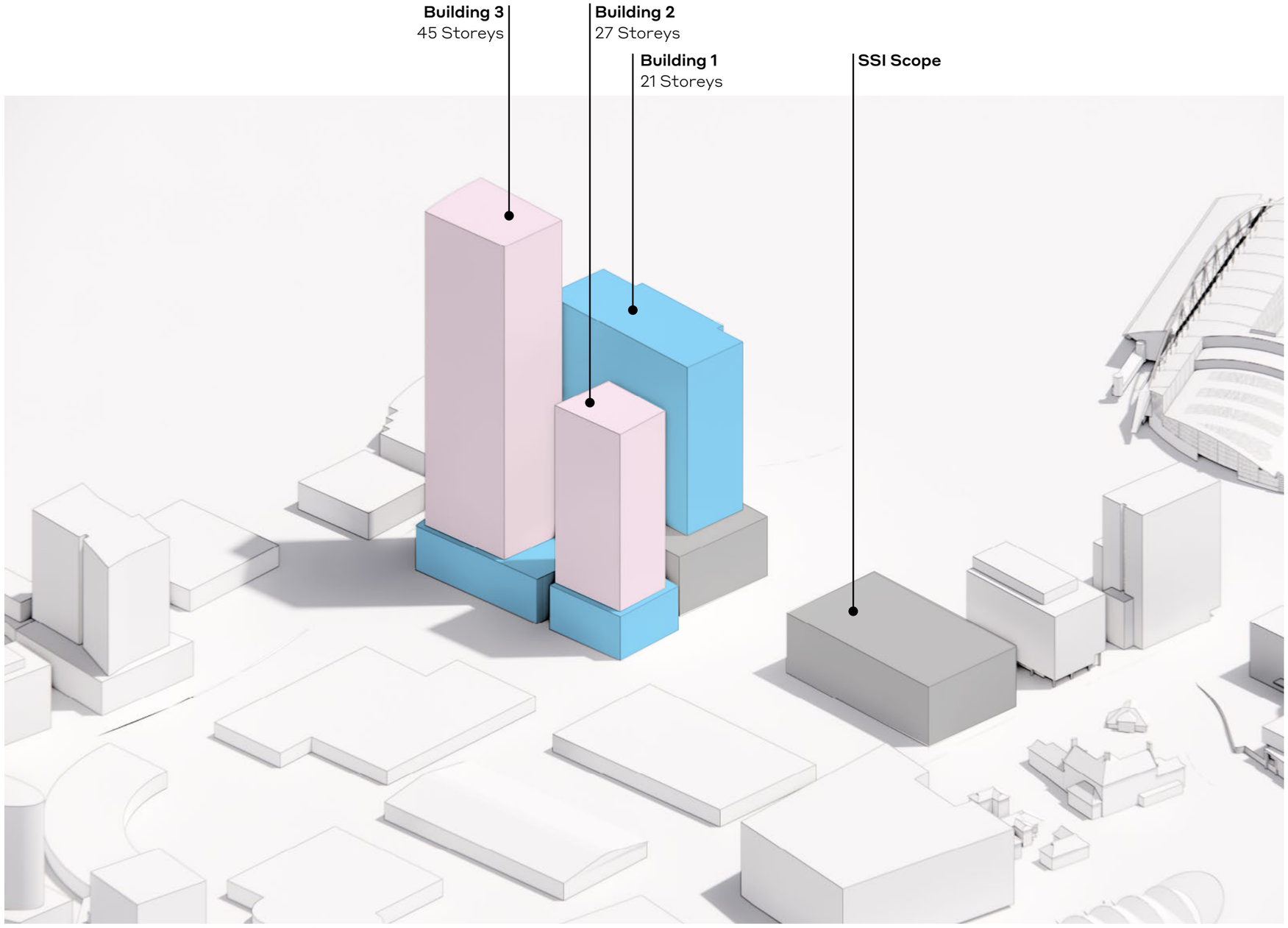


Figure 7: 3D Axonometric overview of proposal

3

Design guidelines

3.1 Land use and function

Building uses

Objectives:

1. Identify uses that support and contribute to the delivery of unique, attractive and vibrant urban centres that provide a sense of connection and identity for local communities and visitors.
2. Activate the public domain of station precincts to integrate stations and supporting infrastructure with existing and desired future urban settings.
3. Create a diverse residential offering to cater for various demographics, people with different needs leading to diverse community. Including a wide range of residential amenities and diverse open spaces catering to active and engaged community.
4. Provide a multi-functional, fine-grain commercial offering within the building podium catering for needs of the future community.
5. Maximise active frontages along streets and laneways with retail, dining and community activities to support a vibrant town centre.

Guidance:

1. Development should accommodate a diverse mix of uses demonstrated in figure 8, delivering an active precinct and engaged community.
2. Ensure the scale of development creates human scale environment building upon existing and desired future character.
3. Create a balanced but vibrant and activated mixed-use precinct reflecting the needs of the future town centre.
4. Uses that activate ground plane (retail, food and beverage) to be located at ground level resulting in active external and internal frontages.
5. Create activated public domain around the development by strategically located active uses in podium levels.
6. Commercial buildings are to be designed to achieve PCA Grade-A rating, offering contiguous and efficient commercial floor-plates.

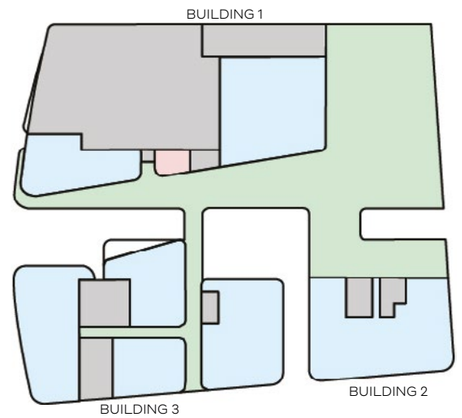


Figure 8: Building uses - Land Use and Function

NOTE: Building configurations shown are indicative only and subject to further design development

Active uses

Guidance:

1. Uses are to be strategically located to support public domain activation during the day, evening, and night.
2. Diversified uses to provide 24 hours passive surveillance to all public domain areas as well as buildings and station entries.
3. Provide a range of open space offerings from public to semi-private and private settings supporting activation during workdays and weekends, and during the day, evening and night.
4. Incorporate noise mitigation measures where necessary to manage potential noise impacts on residential buildings resulting from activities in the podium levels.
5. Built form to be broken down creating a human-scaled environment.
6. Provide sufficient activation on the promenade and lane-ways at ground level.
7. Podiums to be connected to the promenade and lane-ways allowing for vertical activation, direct solar access to the ground plane, as well as 24 hour passive surveillance.

GROUND FLOOR PLAN - 1:1000

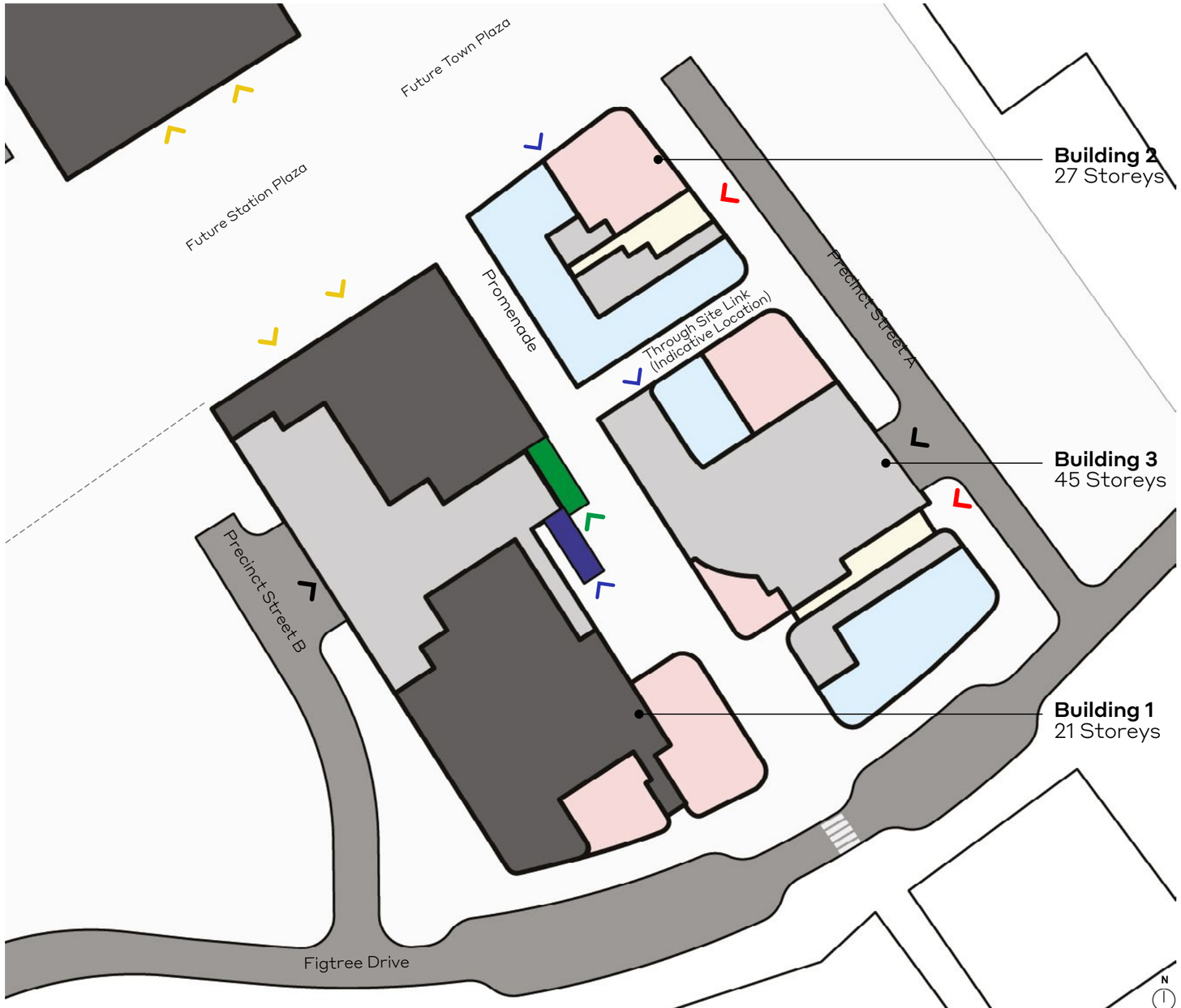


Figure 9: Active Uses

- Indicative Residential Lobby Uses
- Indicative Retail Uses
- Indicative Commercial Uses
- Indicative Development Services, Loading and Car-park Entry
- Sydney Olympic Park Metro Station SSI
- Site Boundary
- Residential Entry
- Non-Residential Entry
- Loading & Car-park Entry
- Metro Day to Day Entry
- Metro Events Entry

3.2 Places and spaces

Objectives:

1. Ensure the scale of development reflects existing and desired future character of Sydney Olympic Park.
2. Reflect and build on opportunities which recognise Aboriginal Country and responds to heritage context.
3. Create a safe and legible hierarchy of public spaces such as parks, plazas and pedestrian links for active and passive recreation.

Podium and street wall

Guidance:

1. Podium form and articulation should aim to re-establish architectural order within the immediate precinct, demonstrating heritage and contextual sensitivity, with scale and massing that relates well at the human scale.
2. The built form should follow podium setback and height requirements proposed by SOP Masterplan 2030 (Interim Metro Review) also demonstrated in Figures 10 and 11.
3. Provide a minimum 5m clearance from the kerb line at bus interchange on Figtree Drive to allow sufficient area for pedestrian movement (subject to further design coordination).
4. The built form should be broken down to create a human environment reflecting the scale of heritage Abattoir precinct.
5. Podiums to be designed to allow for direct sunlight access and passive surveillance to all public areas.
6. The southern station building is to be used as the podium for commercial development as well as station services. The heights and scale of the station building are part of separate SSI Applications. Coordination between the commercial and the station building is essential in achieving a good urban outcome.

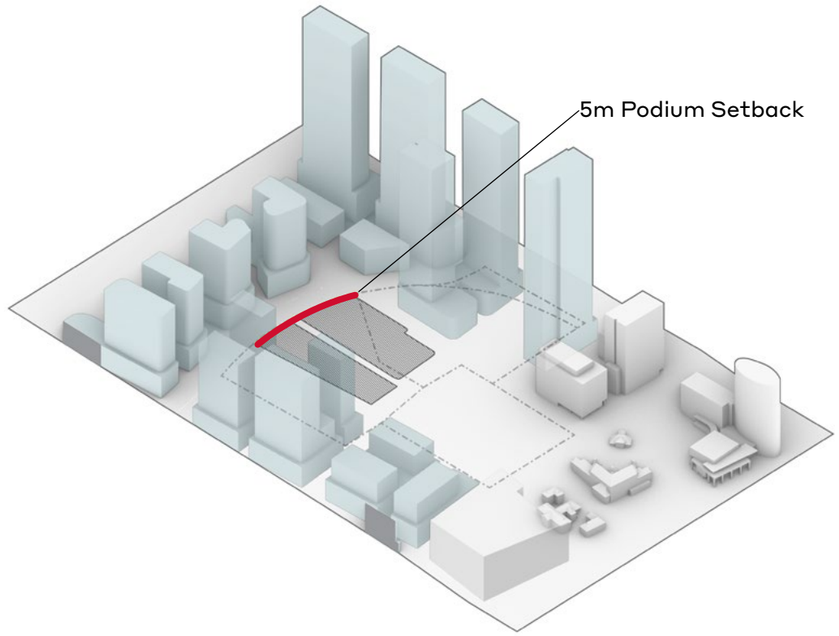


Figure 10: Podium setbacks

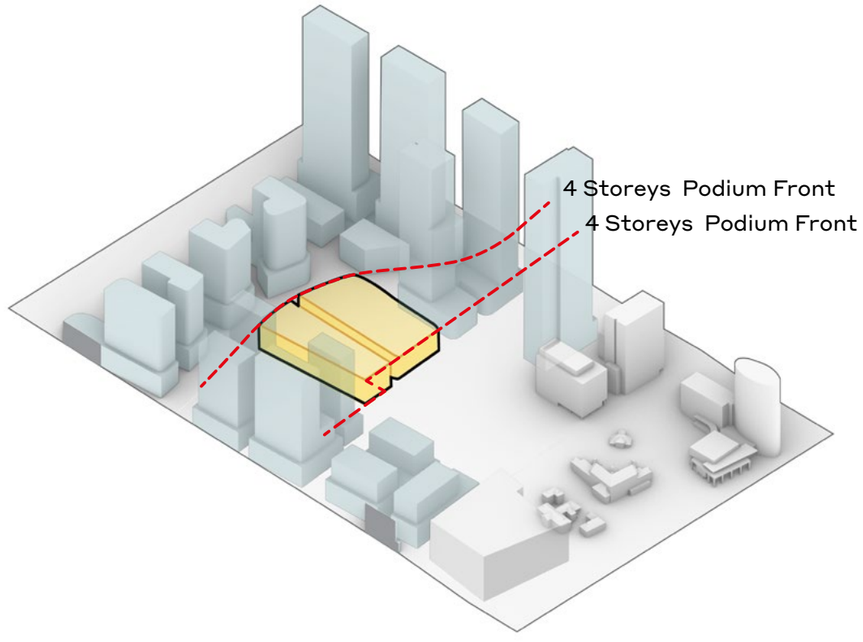


Figure 11: Street wall height

Towers

Guidance:

1. Provide exceptional and distinctive tower designs that responds to the evolving height, scale and character of the area.
2. Building setbacks are to follow requirements set in Figure 12. A minimum of 2.5m tower setback is to be provided at podium levels following that, a minimum building separation is achieved as noted in Figure 12.
3. Maximum building heights are (refer to Figure 13):
    a. Building 1 – 21 levels
    b. Building 2 – 27 levels
    c. Building 3 – 45 levels
4. Along Olympic Boulevard, buildings are to follow SOPA Masterplan's intention to create a high-rise corridor with gradually increasing building heights.
5. Commercial building façades are to be coordinated with the station design to achieve a good urban outcome.
6. Adequate building positioning and separation are to be provided (min 24m) to minimise overlooking issues and maximise privacy and outlook for adjacent residential buildings.
7. Further wind impact assessment is to be conducted to reach necessary public domain comfort levels. Comfort levels are determined by uses at the ground level.

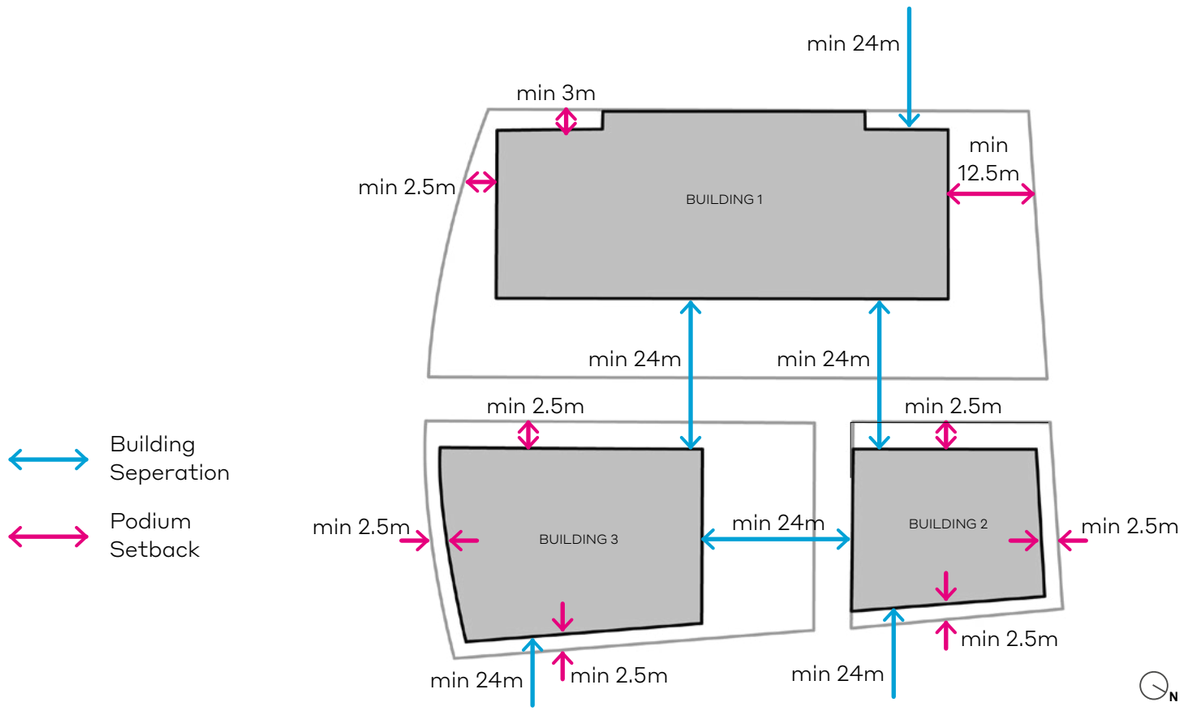


Figure 12: Tower setbacks

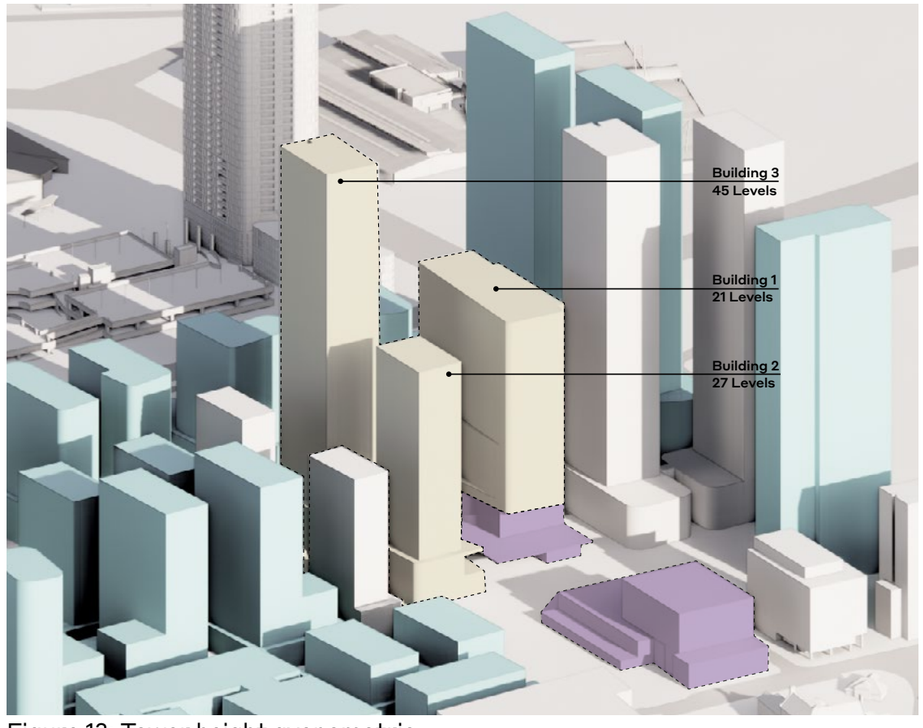


Figure 13: Tower height axonometric

Station interface

Guidance:

1. The station building is to be used as a podium for the commercial development located above. The use of roof top areas above the station as a semi-public/private open area is encouraged, for example to provide a forecourt for commercial buildings or additional open co-working / activity area for the adjacent residential development.
2. Ensure commercial lobby entries are coordinated with the station entries and are strategically located to maximise activation of the promenade.
3. Commercial façade, structures, and services are to be coordinated with station design. The main design objective is to achieve a good urban outcome, maximising activation on all façades and roofs.
4. Transfer structure is to be integrated with the top level of station services building to lower the podium and achieve a better urban outcome.
5. Development and station services to be coordinated allowing for sufficient separation distances to avoid cross-contamination of air intake and exhaust systems.

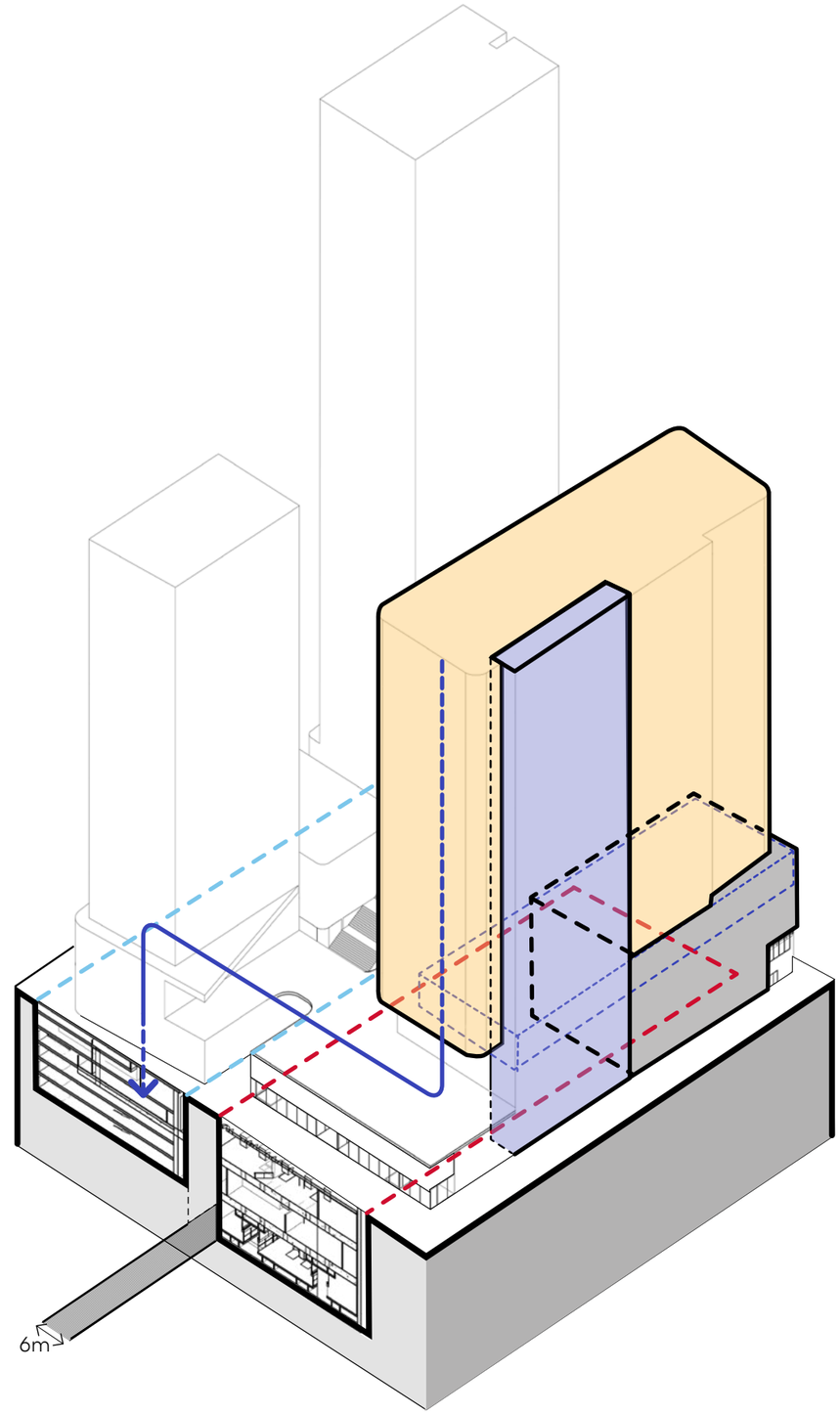


Figure 14: Station interface

Materials and finishes

Guidance:

1. Façade materials, colour, tone, and texture should demonstrate a historically strong connection to the nature, wetlands, and parklands of the Sydney Olympic Park area. Therefore, the use of natural materials such as brick, shale, or timber should be used is encouraged throughout.
2. Plants and other green elements on façades and in the podium, design are strongly encouraged building upon a strong connection to nature in the precinct.
3. The use of recycled materials, especially brick, is strongly encouraged to achieve proposed sustainability targets and reflect design with country principles.
4. Materials selection should contribute to sustainability targets, reducing carbon footprint and resulting in high-performing buildings.
5. Integration of PV panels in the façade elements is strongly encouraged to achieve sustainability targets.
6. At ground levels, strategically located landscaping elements and the use of resistant materials are strongly encouraged to deter vandalism and graffiti.

Figure 15: Materials and finishes

NOTE: Materials shown are indicative only, subject to detailed SSDA

Landscape interface

Guidance:

1. Provide a landscaping design that is suitable to the climatic conditions of the area, provides appropriate shade, habitat and biodiversity, minimises impervious surfaces and maximises the water quality of receiving waterways.
2. Landscape is considered essential part of the design in achieving good design outcome, connecting to country and achieving sustainability targets.
3. Landscaping to be integrated in all public areas around the site, in open areas in the podiums, on top of the podium and all private communal areas throughout.
4. Sufficient tree canopy area to be provided to assist in the urban heat island effect and ensure appropriate comfort levels throughout development, whilst not impacting safety and passive surveillance in the promenade and on elevated public areas.
5. Integration of landscaping elements in all residential facades is strongly encouraged, providing shading to the apartments, achieving sustainability targets, and connecting to design with country principles.

KEY:

SSD Public Domain Scope
1 Station Boulevard (Miluni West End)
2 Station Plaza (Miluni Metro)
3 Station entrance
4 Town centre Plaza (Miluni East)
5 Open lawn
6 Potential shared zone
7 Slow street
8 Pedestrian Laneway

Figure 16: Landscape Extents

Ground Floor Plan

3.3 Access and connectivity

Objectives:

1. Prioritise walking and other modes of active transport in the design of stations, interchanges and associated developments.
2. Integrate walkable urban environments with the Green Grid to contribute to safe, permeable and well-connected station precincts.
3. Manage the design of streets in accordance with Movement and Place principles.
4. Enable easy connections with other transport services.
5. Provide culturally safe spaces and connections.

Pedestrian movement

Objectives:

1. Prioritise pedestrian movement across the metro precinct. Precinct Street A is to be designed as a shared way with vehicle traffic limited only to access to the development basement car-park.
2. Prioritise pedestrian movement patterns in the precinct, access to station day-to-day entries, and commercial development, to determine the exact location of the proposed laneway.
3. Include active uses at ground level to encourage pedestrian uses of shared ways, laneways, and the promenade, providing sufficient levels of passive surveillance.
4. Basement car-park entries to be strategically located to reduce vehicle movement through Precinct Street A, prioritising pedestrian movement in the precinct, minimising collision potential and disruption to active uses at ground level.
5. Enable easy connection between different traffic services (Bus interchange and Metro station)
6. Complex integration between station services and commercial services at ground level resulted in vehicles reversing in loading bays at Precinct Street B. Special care is to be taken in achieving landscape design that discourages pedestrians to use the Station side of Precinct Street B to avoid potential safety concerns with reversing vehicles.
7. Provide intuitive wayfinding and pedestrian movement to the commercial and residential entries with convenient walking connections to the main transport points.
8. Residential entries to be separated from Metro entries to achieve required levels of privacy and ensure sufficient pedestrian flows, achieving intuitive wayfinding and providing the address for residential developments.
9. The use of bridge links is encouraged to provide a connection between semi-public and private open spaces.

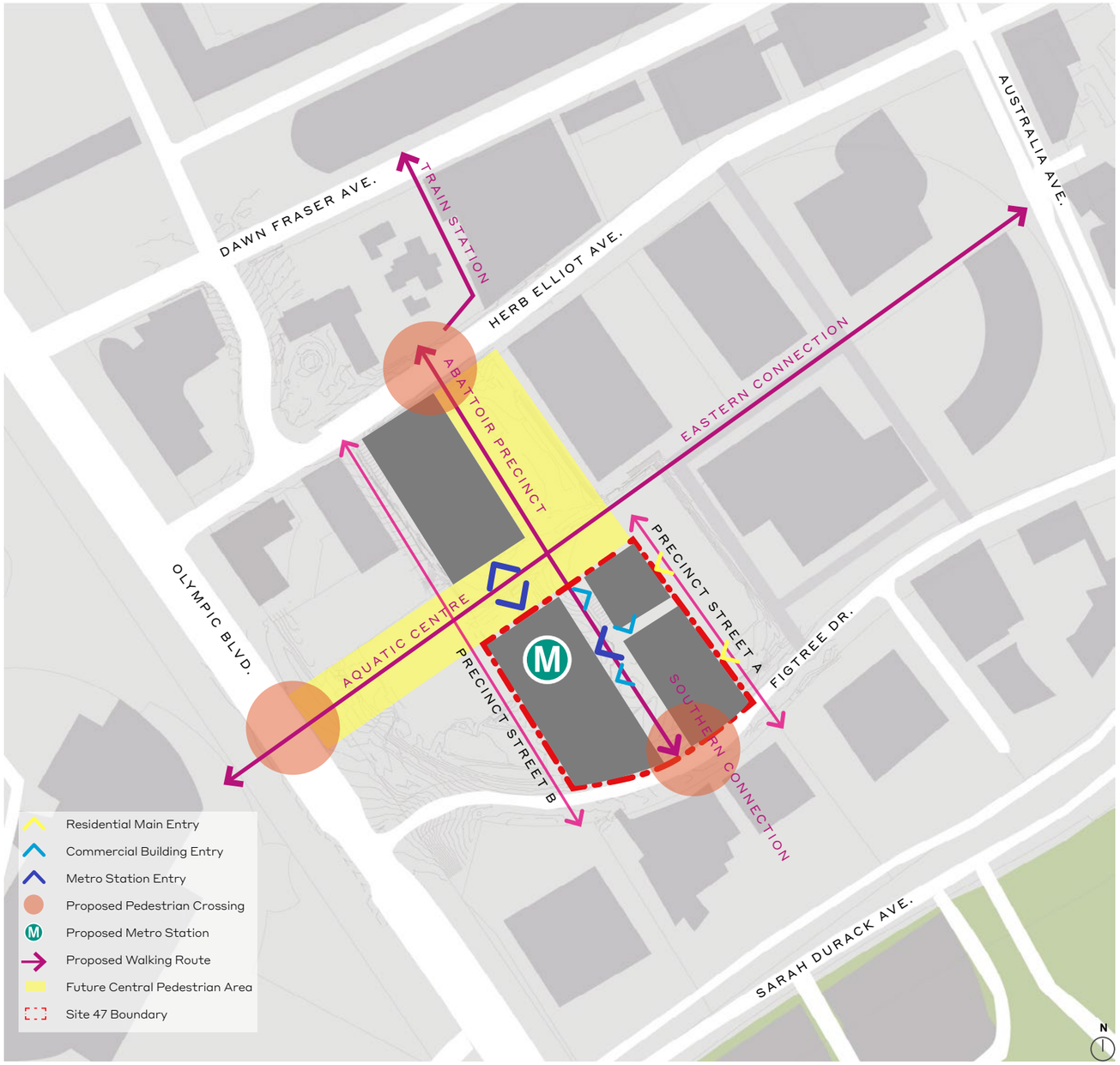
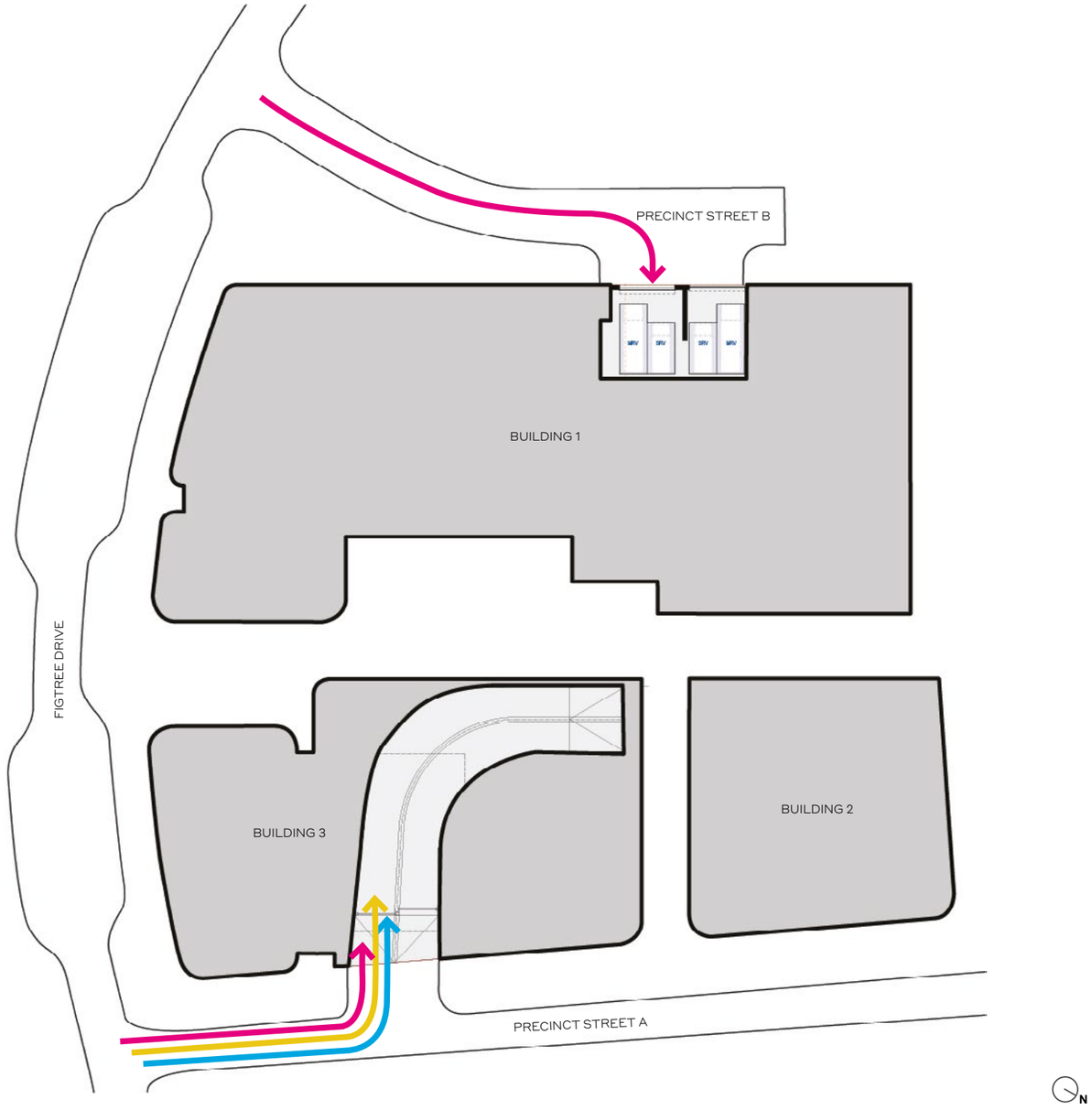


Figure 17: Pedestrian Movement

Parking, servicing and loading

Guidance:

1. Basement car-park entries to be strategically located to reduce vehicle movement through Precinct Street A, prioritising pedestrian movement in the precinct, minimising collision potential and disruption to active uses at ground level.
2. All car-park spaces are provided in the basement to Buildings 2 and 3. A secured and seamless, equal access connection between the development over the station and adjacent development is to be provided, through different means of vertical transport, or potential bridge links.
3. To achieve the required levels of activation at the ground level, service areas at the ground are to be minimised. Only services that have strict direct access requirements are to be located at ground level. The majority of services are to be located at the first basement level. Sufficient loading and servicing bays are to be included in the first underground level.
4. Car-park levels below level 1 are to cater for commercial, retail and residential uses including storage spaces for building occupants. Car-sharing and delivery service spaces are to be included in typical parking levels. EV provisions are to be included in line with sustainability targets.



Service Vehicles
Residential Parking
Commercial Parking

Figure 18: Parking

3.4 Environment and sustainability

Objectives:

1. Deliver a sustainable development demonstrating excellence against national and international benchmarks and certification systems
2. Achieve high levels of environmental performance and contribute to positively addressing social issues relevant to the building use and precinct needs.
3. Contribute to the evolution of a new urban development paradigm which incorporates environmentally sustainable elements, processes and designs.
4. Contribute to climate resilience through delivering high-quality public spaces, significant tree canopy, and integrated green infrastructure
5. Contribute to social sustainability through inclusive consultation, engagement, and design processes, with particular regard to maintaining meaningful participatory engagement with local Aboriginal communities.

Figure 19: Sustainability

Guidance:

1. Address the sustainability targets and rating requirements outlined in Ecologically Sustainable Development Report.
2. The built form is to be built upon natural ventilation principles opening up towards the east allowing a cool summer breeze to naturally ventilate open areas while blocking cold winds coming from the west in winter months.
3. Apartment layouts are to be designed to maximize solar access and natural ventilation in the apartments.
4. Use of plants and other green elements on façades and in the podium design are strongly encouraged as natural shading elements providing protection in the summer months.
5. The use of recycled materials, especially brick, is strongly encouraged to achieve proposed sustainability targets and reflect design with country principles.
6. Materials selection should contribute to sustainability targets, reducing carbon footprint and resulting in high-performing buildings across the asset life cycle. This includes (but not limited to) using high recycled content and low carbon materials; energy and water efficient products, services and systems and smart metering and monitoring system for continual improvement.
7. Integration of PV panels in the façade elements, and on the roofs is strongly encouraged to achieve sustainability targets.
8. Extensive recycling of rainwater has been identified as one of the strategies to achieve sustainability targets.
9. Appropriate solar shading of commercial and residential towers should be provided to reduce solar reflection and urban heat island effect.
10. As a minimum the development should comply with the City of Parramatta Waste Management Guidelines for New Development Applications.
11. Centralised waste storage areas and associated plant (e.g. compactors, balers, bin pullers, bulky waste storage cage) should be provided and adequately sized in each building, for the effective segregation, storage and handling of all operational waste prior to collection.
12. Design buildings to enable smart, multifunctionality, share economy, adaptation and reclamation of elements for reuse, repurpose or recycling in the future.
13. Design to cater for current and future integration of accessibility for all users including vulnerable groups.
14. A dual chute system should be provided for residential buildings (i.e. recycling and general waste), to encourage building occupants to segregate waste and to participate in best practice waste management.

3.5 Benchmarks

Sydney Metro has identified benchmark projects that demonstrate the design quality aspirations for the site. These benchmarks have been selected to showcase the minimum quality expected in relation to:

- Integrated design outcomes.
- Development that showcase high quality design and contribute positively to the Sydney Olympic Park skyline.
- Architecture that responds to adjoining buildings and streetscape character and scale.
- A design that provides a high-quality public space that is integrated, connected, active, safe and comfortable for customers and pedestrians.
- A design that fulfils the needs of a civic station entry and a high quality OSD entry with associated servicing.
- Materials and finishes that are high quality and appropriate to the context.
- Integration of joyful public art and public domain elements that contribute to a good experience of the place.
- Well considered strategies in façade and services integration that contribute towards best practice sustainable outcomes.

Each benchmark has been chosen to endorse a variety of design outcomes as outlined in the table below. Further details of these projects are provided in the Sydney Olympic Park Design Quality Benchmarks and are to be used to guide design outcomes for the over-station development.

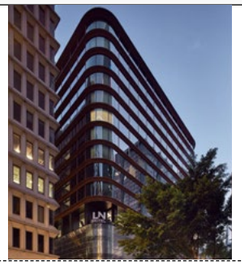
Benchmark	Crows Nest OSD	Waterloo OSD	Wynyard Walk OSD	ShortLane Surrey Hills	The Hensley Potts Point
Integrated design					
Positive contribution to skyline	✓	✓	✓	✓	✓
Streetscape character and scale	✓	✓	✓	✓	✓
High quality public space	✓	✓	✓	✓	✓
Civic station entry and high quality OSD entry	✓	✓	✓		
High quality materials and finishes	✓	✓	✓	✓	✓
Public art and public domain elements	✓	✓	✓	✓	✓
Best practice sustainability	✓	✓	✓	✓	✓

Figure 20: Benchmarks