

DESIGN GUIDELINES

APPENDIX A



Sydney Metro City & Southwest

Chatswood to Sydenham Design Guidelines

September 2016

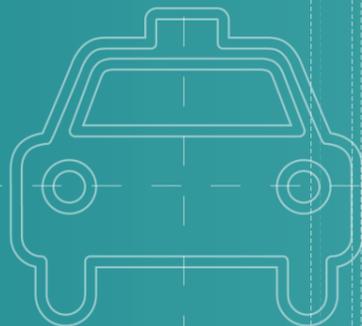
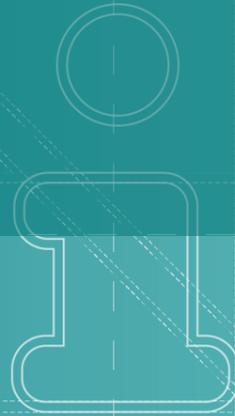


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1.1 Purpose of these Guidelines

The Guidelines will support the development of healthy, cohesive and inclusive communities.

The Guidelines establish the design standards for the Sydney Metro Chatswood to Sydenham project (the project) by guiding the design of:

- The interface between stations and their surrounding locality including
 - Station entries
 - Transport interchange facilities (bicycle facilities, bus stops, kiss and ride, taxi ranks and connections to existing rail, ferry and light rail transport)
 - Landscaping and other public domain elements.
- Rail corridor works including the tunnel dive structures, rail cuttings and embankments.
- Station and service buildings, including underground stations

Any development above Metro stations would be subject to a separate planning approval.

The Guidelines have been developed to respond to the strategic directions and urban design strategies of the local Councils. The Guidelines will be used by Transport for NSW (TfNSW) to guide the design development process for the project.



Grand Concourse, Central Station, Sydney. Accommodating Sydney's growing population in a manner that protects Sydney's status as a global city.
Source: TfNSW.

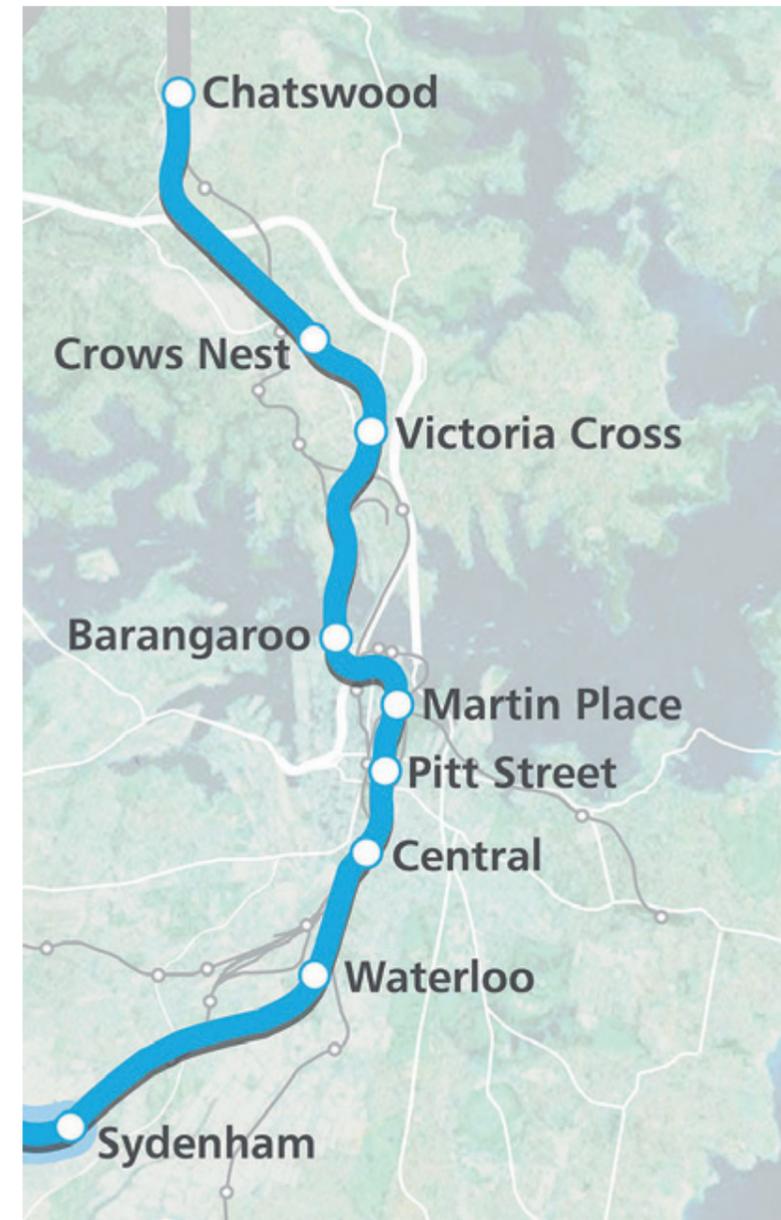
1.2 Project Scope

The Chatswood to Sydenham component of the Project includes the construction and operation of a new metro rail line from Chatswood under Sydney Harbour through Sydney's CBD to Sydenham. The project will deliver seven new metro stations at;

- Crows Nest
- Victoria Cross (North Sydney)
- Barangaroo
- Martin Place
- Pitt Street
- Central Station (new underground platforms)
- Waterloo.

Key Project features include:

- 16km of new metro line between Chatswood and Sydenham.
- 15km of new twin rail tunnels.
- Convenient interchanges with other forms of transport including Sydney Trains, NSW Trains, light rail, buses and ferries.
- All stations will meet the needs of pedestrians, cyclists, customers catching or getting off buses and taxis, and people being dropped off and picked up in cars.
- There will be platform screen doors and all stations will be fully accessible.
- New stations designed for passenger comfort including environmentally friendly features like natural ventilation and natural lighting.



Chatswood to Sydenham alignment map

1.3 Project Vision

Transport for NSW’s vision for Sydney Metro is:

“Transforming Sydney with a new world class metro”.

The Sydney Metro Delivery Office’s mission is to deliver a world class, connected metro, which will provide more choice to customers and opportunities for our communities now and in the future.

Sydney Metro is also a unique opportunity to demonstrate an exemplary approach to integrated transport and land use planning. Quality architecture, good urban design and a user friendly and inter-connected transport system are critical to ensuring that the Sydney Metro project meets customer needs and expectations and maximises its city shaping potential and broader urban benefits.



Sydney Metro alignment map

1.4 Design Objectives

To help meet the transformational vision and world class aspirations of the project, five **Design Objectives** for the project have been agreed to guide decision making and the design process for the City & Southwest project.

A **Design Principle** is prescribed under each design objective, describing the intention of the objective for the design of stations, station precincts and the wider Metro corridor:

Objective 1: Ensuring an easy customer experience.

Principle

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.

Objective 2: Being part of a fully integrated transport system.

Principle

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.

Objective 3: Being a catalyst for positive change.

Principle

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.

Objective 4: Being responsive to distinct contexts and communities.

Principle

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 distinctive station architecture and public domain that is well integrated with the inherited urban fabric of existing places.

Objective 5: Delivering an enduring and sustainable legacy for Sydney.

Principle

Sydney Metro is a positive legacy for future generations. 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.



Kings Cross Station, London UK. World class transport hub.
Architect: John McAslan + Partners
Source: Wikipedia

1.5 Understanding Customer Needs

“The Customer is at the centre of everything we do.”

Who are our customers?

To provide customer centred design we first need to identify who Sydney Metro’s customers are and what their needs are.

Sydney Metro customers are those who derive a direct benefit from using the system and the services offered.

Sydney Metro’s customers will be as diverse as they are numerous and will have different transport needs and patterns of use. Examples of customer segments include work commuters, school students, tertiary students, personal or recreational users, tourist & visitors. Within these groups there is a mix of demographics, lifestyle, travel needs and patterns of use.

An important consideration in designing for all customers is providing a fully accessible service. Whilst approximately 8% of our customers have some form of disability the potential market for accessible transport is much larger when people with prams, injuries and less mobile and older customers are considered.

Customers travel at all times of the day and week and Sydney Metro will deliver a service to meet the needs of these customers.

What customers want?

A quality ‘door to door’ transport offering is critical to attract and retain customers. Sydney Metro will be applying customer centric design to deliver the Sydney Metro product. This will ensure the Sydney Metro product will be developed in response the customer’s door-to-door journey and the customer experience drivers.

TfNSW’s customer research has showed that there are nine key themes or aspects of public transport service delivery that meet customer needs and drive customer satisfaction: Timeliness, Convenience, Safety and Security, Comfort, Accessibility, Information, Ticketing, Cleanliness and Customer Service.

Each experience driver represents a group of individual, related service attributes, and together the nine drivers provide a high-level, holistic view of the key things that contribute to a great public transport experience.

In general public transport customers want convenient, easy-to-use environments and expect them to offer good levels of personal safety and security, comfort and cleanliness, information and accessibility.

Public Transport Customer Experience Drivers



Timeliness

Frequent and reliable services that keep to schedule, arrive on time, and offer a reasonable journey time given the distance travelled.



Convenience

Conveniently located station, stop or wharf, ease of interchange and connection between modes, plus ease of parking and drop-off.



Safety and security

Feeling safe and secure on all parts of the system as a result of physical design features, the way the service is operated and the behaviour of other people.



Comfort

Comfort throughout the journey including adequate personal space, availability and comfort of seats, a smooth journey, appropriate temperature, and other amenities where needed.



Accessibility

Ease and convenience of physical access and navigation through the system.



Information

Clear, effective, relevant communication of service information and timetables, including real-time updates on service changes and clear, easy-to-understand announcements.



Ticketing

Ease and convenience of getting and using tickets without having to queue, and confidence that the right price has been charged.



Cleanliness

A clean, well-maintained environment with clean seats, toilets and operating equipment, an absence of graffiti and litter, and availability of rubbish bins.



Customer service

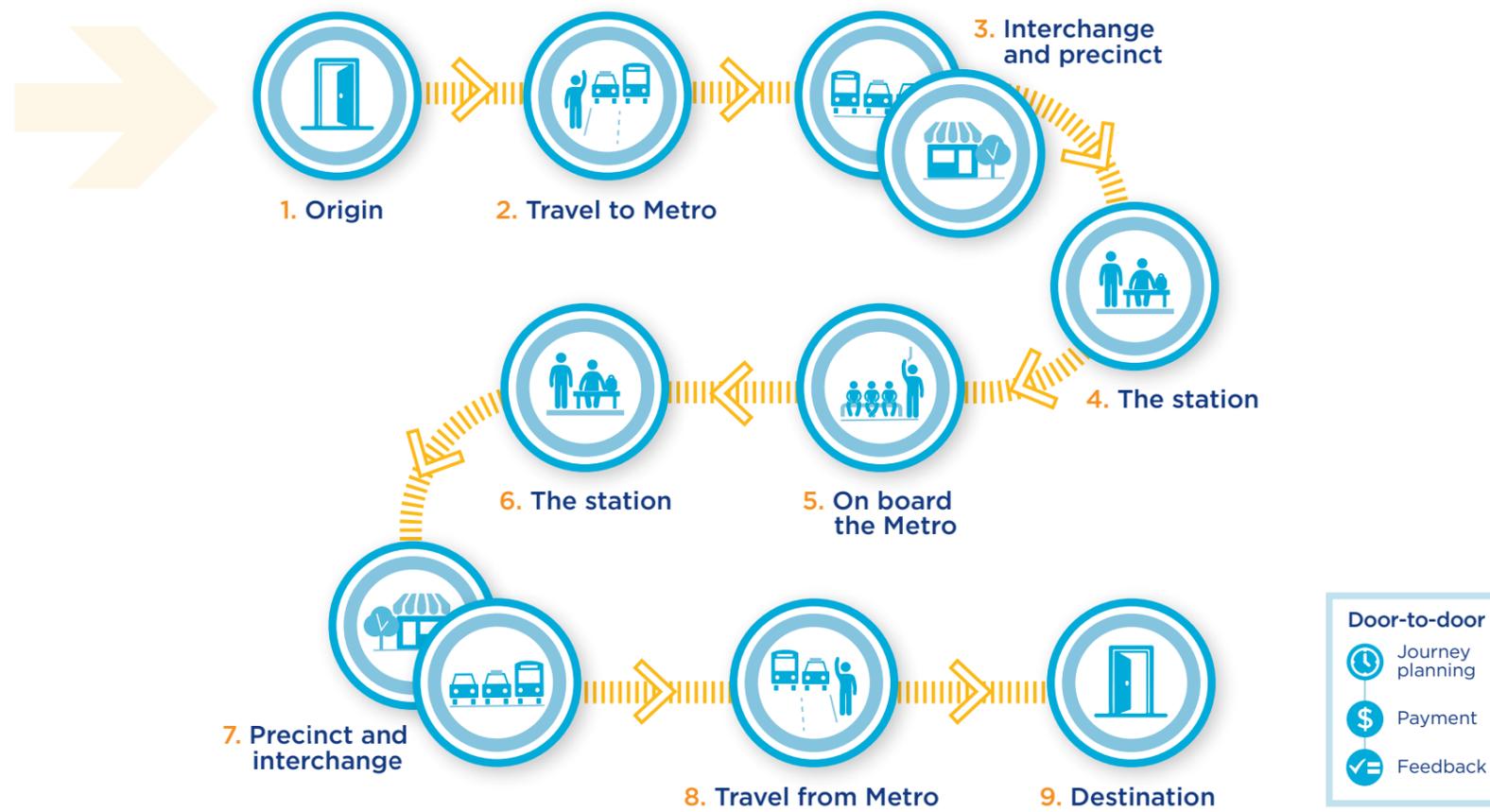
Polite, knowledgeable, helpful staff who respond promptly and effectively to service requests, issues and feedback.

How is Sydney Metro customer-focused?

Our customers' experience of public transport is a door-to-door experience. It begins with finding out information and deciding which service to use and doesn't end until after the customer has reached their final destination (see Section 3.1.1).

Sydney Metro has applied this door-to-door design philosophy and applied journey mapping to ensure that we look at public transport from our customers' point of view; taking the time to put ourselves in their shoes and think about who they are, the transport tasks they need to achieve and the steps they go through as they use our services.

Sydney Metro is focused on making the journey experience easy for all customers. This means all customers can make their journey without any great effort and with few difficulties.



Customer environment on their door-to-door journey.
Source: TfNSW

1.6 A Commitment to Safety

Transport for NSW is committed to ensuring Sydney Metro is designed, constructed and operated in a manner that facilitates safe working and customer passage. The project will provide facilities for customers, staff and contractors that meet or exceed any required safety standards. Sydney Metro will also comply with all relevant statutory and regulatory requirements in respect of safe system design, delivery and operation.

Safety will be considered at all stages of design across all aspects of corridor and station planning, construction, operation and maintenance. In particular, the design of Metro infrastructure in the city must provide safe interfaces between stations and the existing urban environment. The safe movement of customers, staff and contractors through station areas needs to be facilitated through many aspects of physical design, including provision of adequate platform capacity and circulation space, clear routes, adequate lighting and slip resistant flooring, as well as by minimising obstructions and eliminating crush zones.

Station and station realm design will identify and reflect current architectural and engineering best practice with respect to safety. Guidelines and protocols, such as CPTED, will also be important benchmarks in minimising the risks of personal harm, operational disruption and conflict.

Construction and operational safety will be managed through a rigorous safety in design process which will identify, develop and implement safety controls, and enhance the construction, operational and maintenance outcomes.

Maintenance and asset management strategies will be adopted that reduce risk through safety auditing and reporting. Sydney Metro will have a comprehensive framework to avoid or minimise risk, and to enhance safety, without unreasonably reducing amenity and functionality.



Construction of Sydney Metro Northwest.
Source: TfNSW

1.7 A Commitment to Sustainability

Transport for NSW has a clear vision for Sydney Metro to achieve new benchmarks in sustainable infrastructure delivery. This means demonstrating that Sydney Metro is at the forefront of best practice, delivering environmental, social and economic improvements throughout the delivery and operational phases of the project.

This commitment is articulated through a strategic Sydney Metro objective to deliver a sustainable metro product which contributes to environmental, social and economic sustainability and the project Environment and Sustainability Policy which contains specific sustainability objectives. Sustainability objectives relevant to these design guidelines are presented in the table below.



Microclimate and customer comfort can be improved through the use of landscaping and appropriate shading.
Source: AECOM.

Governance	Demonstrate leadership by embedding sustainability objectives into decision making
	Demonstrate a high level of performance against objectives and appropriate benchmarks
Carbon & Energy Management	Improve the shift toward lower carbon transport
	Reduce energy use and carbon emissions during operations
	Support innovative and cost effective approaches to energy efficiency, low-carbon / renewable energy sources and energy procurement
Pollution Control	Reduce sources of pollution and optimise control at source to avoid environmental harm
Climate Change Resilience	Infrastructure and operations will be resilient to the impacts of climate change
Resources - Water Efficiency	Minimise use of potable water
	Maximise opportunities for reuse of rainwater, stormwater, wastewater and groundwater
Resources - Waste & Materials	Minimise waste through the project lifecycle
	Reduce materials consumption
	Consider embodied impacts in materials selection
	Maximise beneficial reuse of spoil
Biodiversity Conservation	Protect and create biodiversity through appropriate planning, management
Heritage Conservation	Protect and promote heritage through appropriate design, planning, and management controls
Liveability	Promote improved public transport patronage by maximising connectivity and interchange capabilities
	Provide well designed stations and precincts that are comfortable, accessible, safe and attractive.
Community Benefit	Make a positive contribution to community health and well-being
	Ensure community and local stakeholder engagement and involvement in the development of the project
	Contribute to the delivery of legacy projects to benefit local communities
	Optimise community benefit of residual land development

1.8 Structure of the Guidelines

The Design Guidelines are structured into four sections:

1. Introduction (this part)

Provides an overview of the Sydney Metro City & Southwest, the project objectives, design principles, an understanding of our customers' needs and the importance of design in meeting those needs.

2. Stations

Outlines the key contextual factors and design drivers that impact the design of the station and surrounding environment.

3. Function & Experience

Outlines the principles and design guidelines to be applied to the design strategies for stations and their interface with adjoining areas.

4. Elements

Outlines the principles and design guidelines to be applied to the elements of the new stations and their interface with adjoining areas.

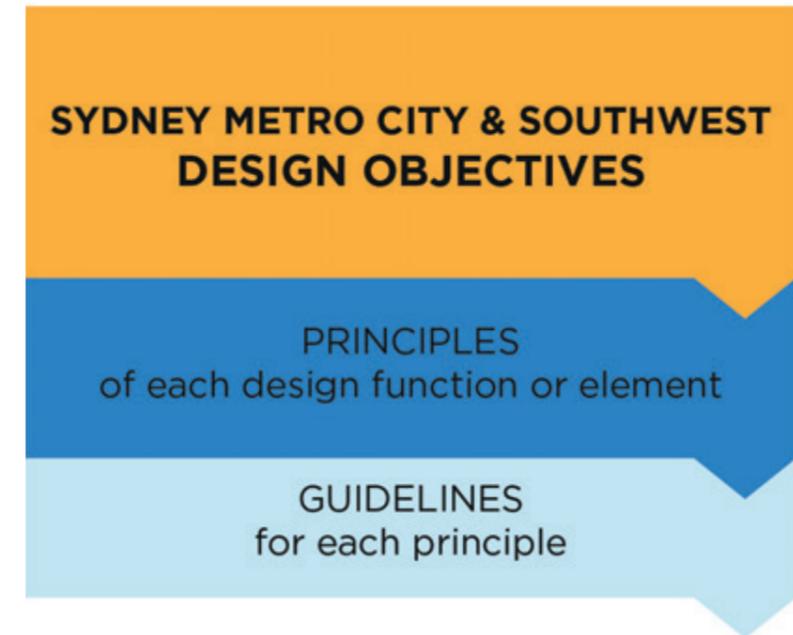
Document Structure

Sections 3 and 4 are structured to include:

Relevant Design Objectives - how each design guideline relates to the project Design Objectives.

Principle - of each design guideline.

Guidelines - describes best practice design responses that address the objective.



1.9 Application of the Guidelines

Review of Design

The design of Sydney Metro is subject to ongoing internal review processes to ensure the designs are developed to respond to these Guidelines. This will ensure design quality meets the needs and expectations of Sydney Metro customers and the people of NSW. These Guidelines will be kept under review through subsequent detailed design and procurement stages to ensure that they remain up to date and relevant.

The design of Sydney Metro and implementation of these Guidelines is also subject to independent review by the Sydney Metro Design Review Panel. The objective of the Design Review Panel is to provide independent, high-level design review of the project to support the achievement of Sydney Metro project objectives and ensure quality design outcomes.

The Design Review Panel will be chaired by the NSW Government Architect and be supported by suitably qualified and appropriately skilled professionals from the fields of architecture, urban design, landscape design and heritage architecture. The Design Review Panel will be supported by specialist advisers in the fields of community integration, transport integration, sustainability and cultural heritage, as required.

These panel members will provide independent design review and advice periodically throughout the development of the design. They will maintain an ongoing review role in the design process for the project, ensuring that as the design of individual components develops, it delivers on the principles contained within this document.

Updating the Guidelines

These Guidelines have been reviewed and updated following exhibition of the Chatswood to Sydenham EIS, in response to public and agency submissions. The Guidelines may be updated from time to time through the project delivery stage, including application of the Guidelines in relevant contracts. It is envisaged that future updates would provide additional detail and guidance as design progresses. The objectives and principles contained in this version of the document would continue to apply in subsequent versions. Updated versions of the Guidelines would be subject to the review and endorsement of the Design Review Panel.



Artists rendering of Waterloo station.
Source: TfNSW

2

Stations

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About this Section

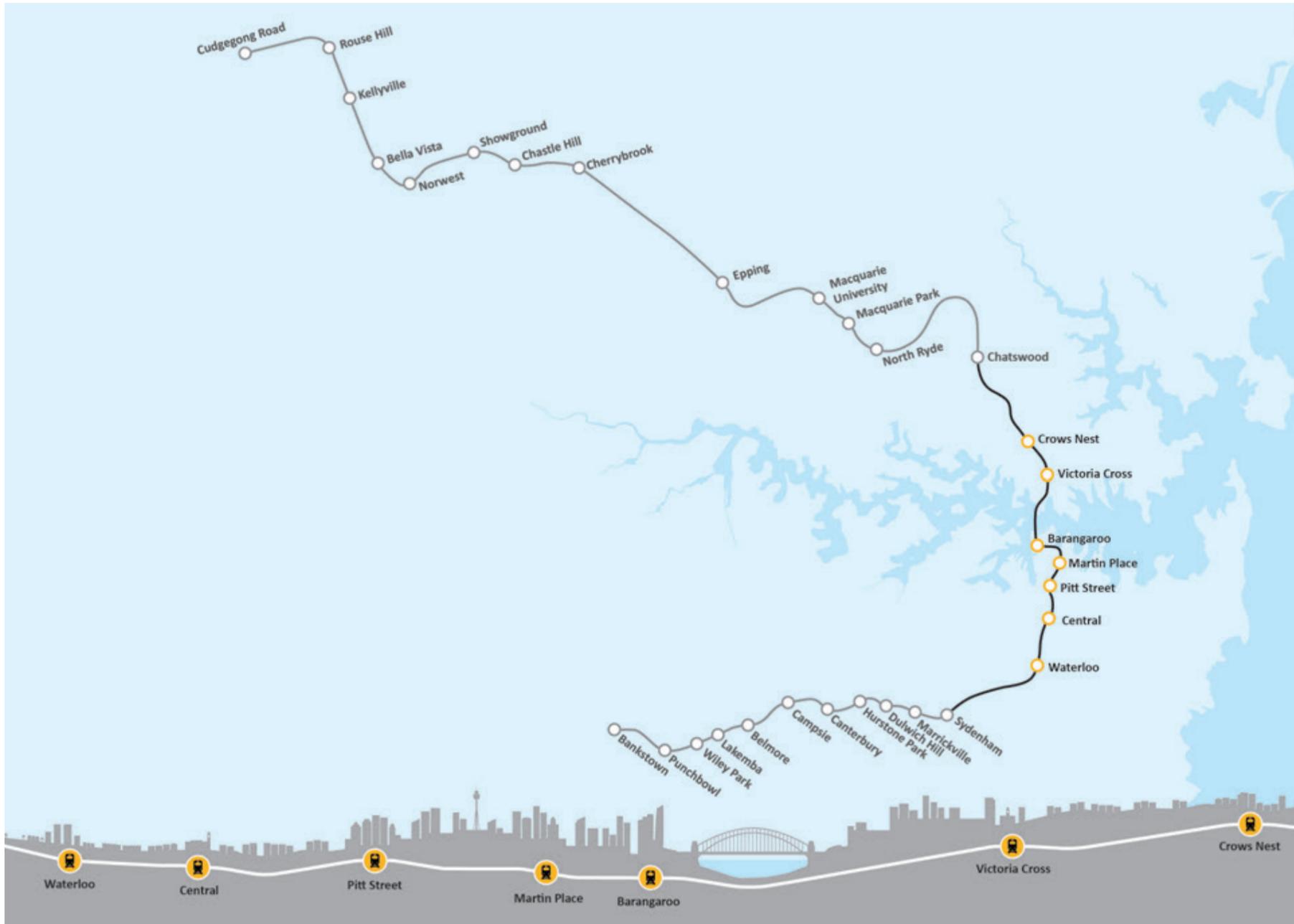
This section describes the context and functional character of the Metro stations. It acknowledges the existing conditions and urban interfaces of each station in order to inform the delivery of contextually responsive and integrated environmental outcomes.

The urban and public domain design must be developed with reference to the existing urban context and infrastructure (including built form and public domain conditions, landscape elements and existing and proposed services) as well as planned initiatives in the locality.

New metro stations are proposed at:

- Crows Nest
- Victoria Cross (North Sydney)
- Barangaroo
- Martin Place
- Pitt St
- Central Station (new underground platforms)
- Waterloo.

Key descriptors for each station are noted in this section including; centre type, primary function (e.g. origin/destination), catchment type, and Local Government Area. An outline of the transport role and function and geographical catchment of each station, including the key design drivers for the station precinct, are also set out in the following pages.



Sydney Metro alignment map

1

2

3

4

2.1 Crows Nest

Centre type: Strategic centre

Primary Function: Origin and Destination

Catchment: Commercial, residential, leisure

Local Government Area: North Sydney

Context

Crows Nest Station would be located on the western fringe of the Crows Nest village. Access to the station would be from the corner of Clarke and Hume Streets and from the corner of Oxley Street and Pacific Highway.

Crows Nest Station would support the St Leonards strategic centre as a southern gateway to commercial and mixed use activities. The station would also improve access to the restaurants and specialist shops in the Crows Nest village.

Convenient and legible links to employment and mixed use developments around Atchison and Chandos Streets are important aspects of the station context. Oxley Street is important in the urban structure as a north-south link that is relatively level and has good sight lines.

The station would provide access to a new transport mode for the surrounding residential areas. This includes the lower scale Holtermann Estate to the east and medium density and multi-unit developments on the western side of the Pacific Highway.

A service building would be located above the station box on the Pacific Highway. The station design would enable development to be built above the station with frontage to the Pacific Highway.

Key design drivers:

- Create a new transport focus on the southern side of the St Leonards strategic centre.
- Maximise legibility and connectivity with the local urban structure.
- Integrate the station with local improvement plans and make a positive contribution to the sense of place.



Clarke/Hume Streets, Crows Nest.
Source: Cox Richardson



Clarke Street, Crows Nest
Source: Cox Richardson



Willoughby Road, Crows Nest
Source: Cox Richardson



Crows Nest Community Centre
Source: Cox Richardson



Crows Nest Station Design Drivers





Urban Design Strategies

Green Streets

Oxley and Hume Streets are important east-west links in the urban structure.

Crows Nest Station is an opportunity to enhance the amenity and green character of Oxley Street and Hume Street. This could include enhanced pedestrian space, paving upgrades and street trees.

Visible and integrated entries

The placement of entries on corners maximises their visibility from multiple vantage points.

There is an opportunity to create a seamless entry experience into the station through materiality and extending the character of the surrounding public domain into the station.

A Pacific Highway landmark

Sydney Metro provides an opportunity for a strong architectural presence along the Pacific Highway. The station entry on the corner of Pacific Highway and Oxley Street can anchor this presence.

The station and associated development above has the opportunity to create a consistent built edge along Pacific Highway, aligned with existing buildings and maximising activation at ground level.

Interchange with buses on the corner of Hume Street reinforces the importance of the metro station on this major transport spine.

Supporting the vision for Crows Nest Village

Sydney Metro will integrate with the vision for the Crows Nest Village including the planned upgrades to Hume Street Park, Clarke and Hume Streets by North Sydney Council, and connectivity to renewal areas to the north.

The Sydney Metro entry on the corner of Hume and Clarke Streets directly addresses cycle, kiss and ride and taxi access including improved pedestrian crossing of Clarke Street.

This station entry will be scaled to reflect the local fine grained character of the area and accommodate new and existing active transport links.

2.2 Victoria Cross

Centre type: Global Sydney (North Sydney CBD)

Primary Function: Destination

Catchment: Commercial, residential, education

Local Government Area: North Sydney

Context

Victoria Cross Station would be located in the northern section of the North Sydney CBD. Access to the station would be from the east side of Miller Street between Berry and Mount Streets.

The Victoria Cross Metro station would support the continued growth of the North Sydney CBD as an integral part of Global Sydney. The new station would improve customer experience at the existing North Sydney Station by relieving demand in peak times.

The North Sydney CBD is characterised by multi-storey commercial developments. A number of educational facilities including high schools and an Australian Catholic University campus are located on the north and western edges of the North Sydney CBD. The area north of Berry Street includes residential and mixed use developments.

The station design would enable development to be built above the station. The future development would have frontage to Miller and Berry Streets.

Key design drivers:

- Create a new transport focus in the North Sydney CBD.
- Contribute to the attractiveness of the North Sydney CBD by adding to and integrating with the public domain.
- Improve the permeability of the immediate station context.



Miller Street, North Sydney
Source: Cox Richardson



Miller Street, North Sydney
Source: Cox Richardson



Entrance to North Sydney station at Brett Whiteley Place
Source: Cox Richardson



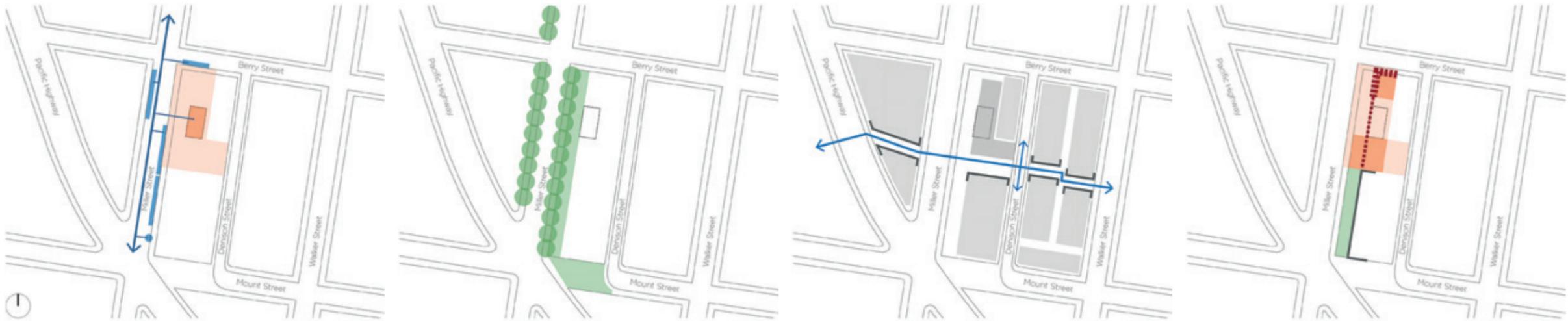
Artist rendering of planned Brett Whiteley Place
Source: North Sydney Times

LEGEND

-  Metro station entry
-  Station development site boundary
-  1 Planned - Brett Whitely Place Stage 1 and Elizabeth Plaza
-  2 Planned - Brett Whitely Place Stage 2
-  3 Under Construction - Walker Street upgrade
-  4 Planned - Denison Street upgrade
-  5 Planned - Berry Street pedestrian crossing



Victoria Cross Station Design Drivers



Urban Design Strategies

A Public Interchange Place

Miller Street is North Sydney’s civic street and an important thoroughfare. This new metro station reinforces the transport function of Miller Street, creating a generous “interchange place”.

This place allows for safe and equitable movement between different modes (especially Metro and rail, bus and taxi).

The Miller Street Green Avenue

The landscape character of Miller Street is extended (by new trees further south along this street) and expanded (into the new interchange place in front of the station).

This avenue will provide pedestrian amenity along the length of the block as well as within smaller pockets of activity, including areas for dining, sitting and relaxing. Miller Street will become the main civic space for North Sydney

Mid-Block Connectivity and Access

Metro provides an opportunity to break down the north-south oriented blocks of North Sydney with new east-west pedestrian connections.

This finer grain block structure opens up opportunities to upgrade laneways such as Denison Street to enable greater pedestrian connectivity.

A Focal Point for North Sydney

The Sydney Metro station creates a focus for development and renewal in North Sydney, creating a generous public space and major transport node, as well as the potential for a significant tower development over the station.

There is an opportunity to focus activity on the corner of Miller and Berry Streets, in addition to enhancing the character and pedestrian amenity of Denison Street.

2.3 Barangaroo

Centre type: Global Sydney (Sydney CBD)

Primary Function: Destination

Catchment: Commercial, visitor (recreation)

Planning Authority: Minister for Planning

Context

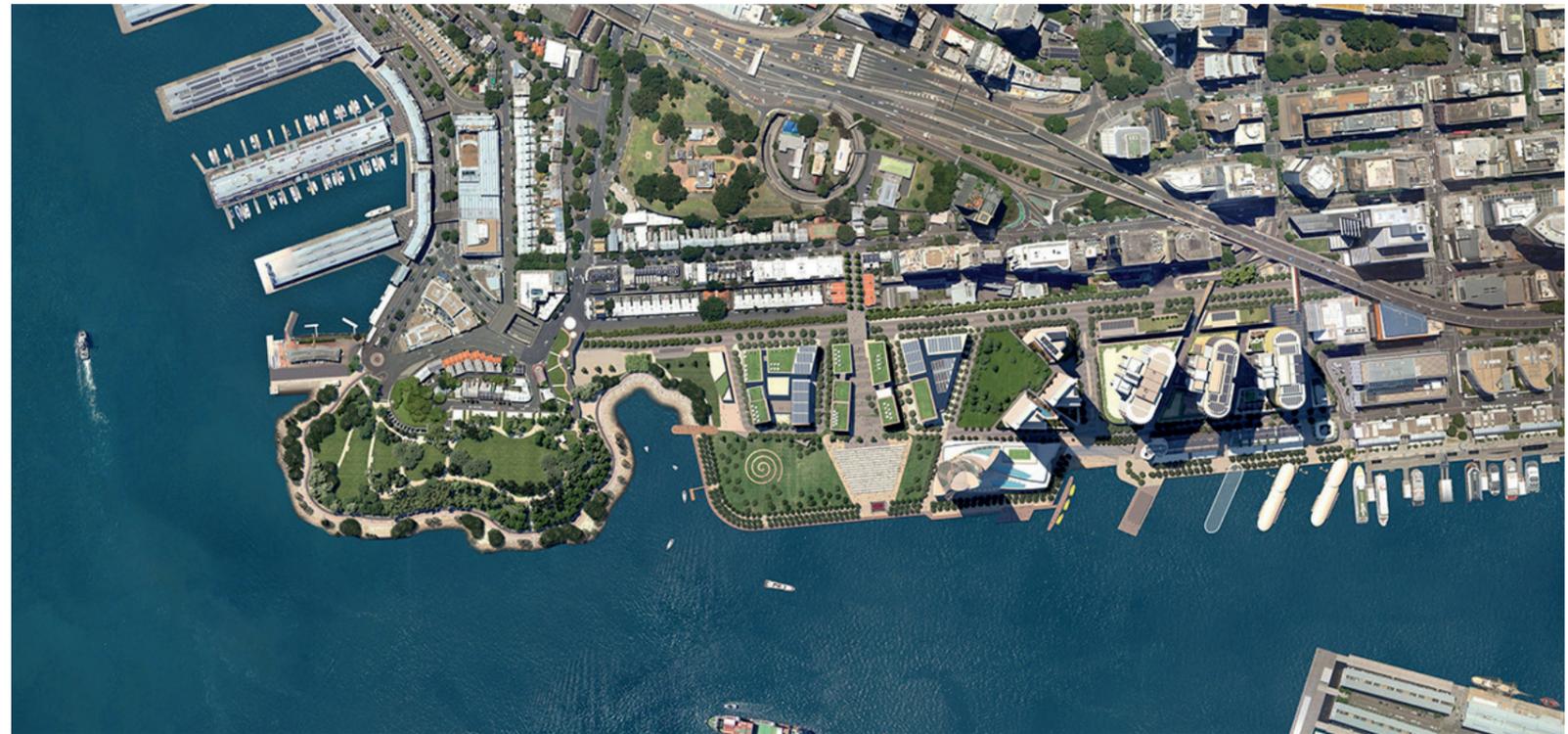
Barangaroo Station would be located on the western side of the Sydney CBD within the Barangaroo Central precinct. Access to the station would be from within the Barangaroo Central development and Barangaroo Reserve.

The Barangaroo station would improve accessibility to Barangaroo and to the Walsh Bay Arts and Culture precinct.

The Barangaroo precinct includes office, retail, residential uses and a new casino, hotel and apartment complex. Barangaroo Central will combine civic and cultural attractions with recreational, retail and commercial uses. At the north end Barangaroo Reserve includes Headland Park, a major new waterfront public open space and new cultural centre hosting events. Barangaroo South will be home to three significant new employment towers.

Key design drivers:

- Maximise connectivity and legibility to the primary uses within and near the Barangaroo precinct including the Walsh Bay Arts and Culture precinct.
- Ensure legible and direct access to Barangaroo Reserve and surrounding development.
- Integrate with the development plans for Barangaroo.



Barangaroo Master Plan
Source: *Barangaroo South*



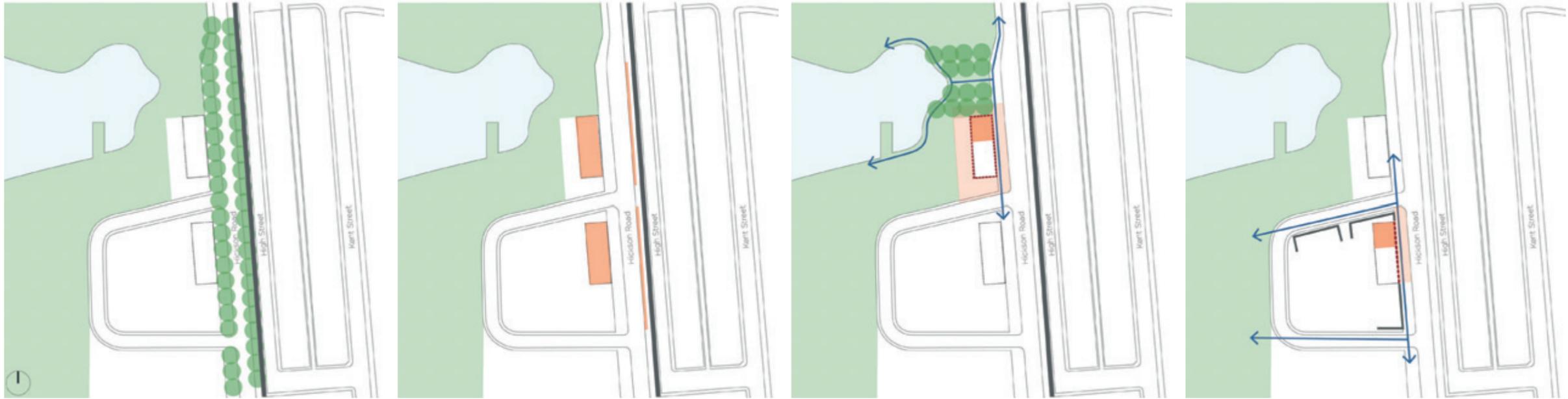
Barangaroo South under construction & Headland Park
Source: *Cox Richardson*



Walsh Bay Arts & Culture Precinct
Source: *Timeout Sydney*



Barangaroo Station Design Drivers



Urban Design Strategies

Hickson Road Heritage

The historic street of Hickson Road will become one of Sydney’s premier boulevards, with street trees, landscaped median and generous footpaths. The entries to the Metro station will address Hickson Road.

The following principles apply to Hickson Road:

- Provide an exemplary streetscape design integrating station infrastructure, with heritage, street access and circulation, pedestrian amenity, safety and security
- Allow for high quality and safe pedestrian access along both sides of Hickson Road
- Integrate a contemporary urban art program and heritage interpretation strategy (including archaeology) as part of the station and streetscape improvement works
- Maximise consistency with the City of Sydney strategies

Infrastructure Integrated into Streetscape

Station infrastructure will be integrated into the eastern edge of Hickson Road. To minimise visual and physical obstruction, the following principles guide the design:

- Consolidate the number of station infrastructure and street elements to achieve a balance between efficiency and visual amenity
- Minimise the height, length and width of station infrastructure in the streetscape
- Locate station infrastructure away from view corridors (eg from the harbourside park between buildings) and from areas of open space (eg adjacent to the Northern Cove)
- Station infrastructure will not be above ground level whenever possible

Entry Pavilion on the Park

The northern entry to the Sydney Metro station will be located within the existing park adjacent to the Northern Cove of Barangaroo.

To ensure visual and physical connectivity between Hickson Road and the harbour, this entry will be minimally scaled and highly transparent.

Entry Embedded in New Development

The southern entry of the Sydney Metro station will be integrated into the future built form of Central Barangaroo, creating a consistent and activated street edge to Hickson Road and reducing the impact of any associated services.

2.4 Martin Place

Centre type: Global Sydney (Sydney CBD)

Primary Function: Destination and interchange (rail)

Catchment: Commercial, retail, civic

Local Government Area: City of Sydney

Context

Martin Place Station would be located between Elizabeth Street, Hunter Street, Castlereagh Street and Martin Place. Access to the station would be from Hunter, Castlereagh and Elizabeth Streets and from Martin Place.

The station would serve Sydney’s high-end commercial and financial district, the Macquarie Street civic precinct and the Pitt Street retail zone. A key function of the Metro station would be to facilitate interchange with the existing Eastern Suburbs and Illawarra line platforms at Martin Place station.

Connection to Martin Place is an important aspect of the station’s context. Martin Place is one of Sydney’s most recognisable civic and public spaces and a primary east-west pedestrian corridor in the city centre.

The design would enable development to be built above the station at Hunter Street and on the south side of Martin Place.

Key design drivers:

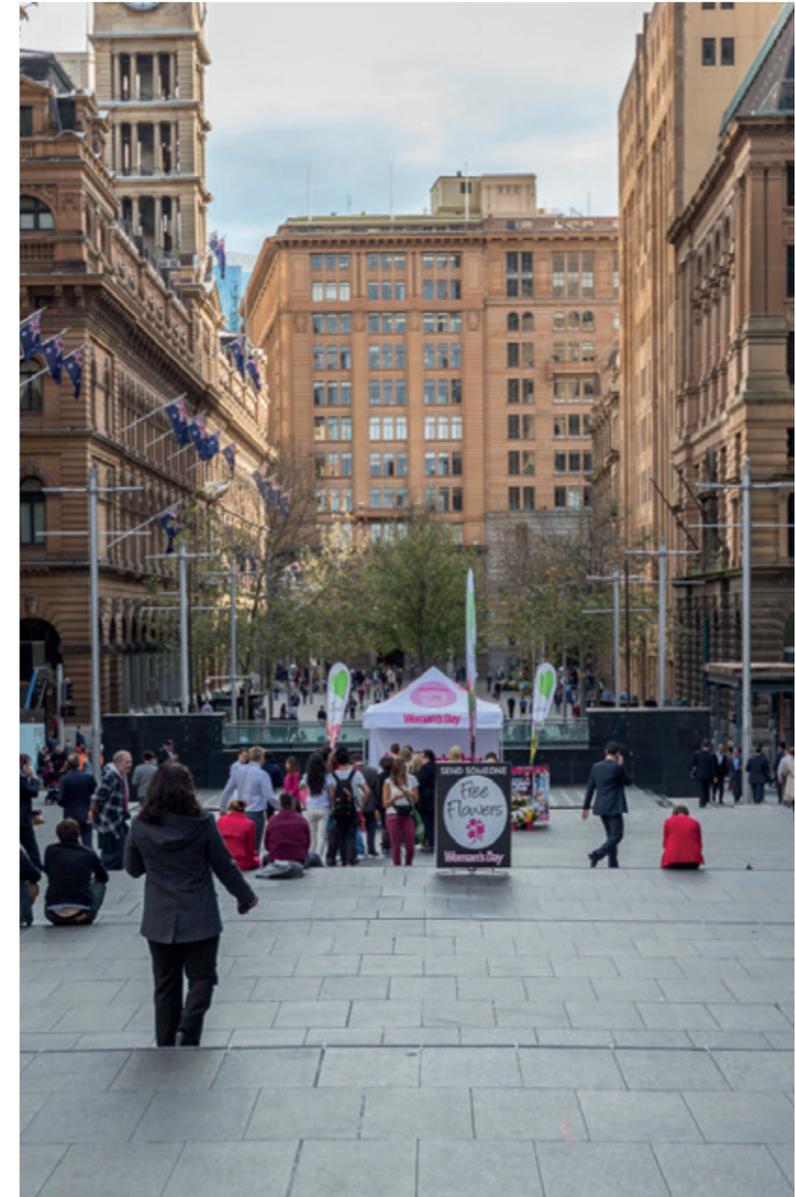
- Reflect the significance of Martin Place and status of the station by designing clear, legible, iconic, integrated entries.
- Provide generous space for customers in a busy pedestrian environment by extending the public domain into the station entries.
- Efficient interchange in the centre of the Sydney CBD through convenient, direct connections to the existing Eastern Suburbs and Illawarra line train platforms.
- Integrate with public domain and transport access improvements.



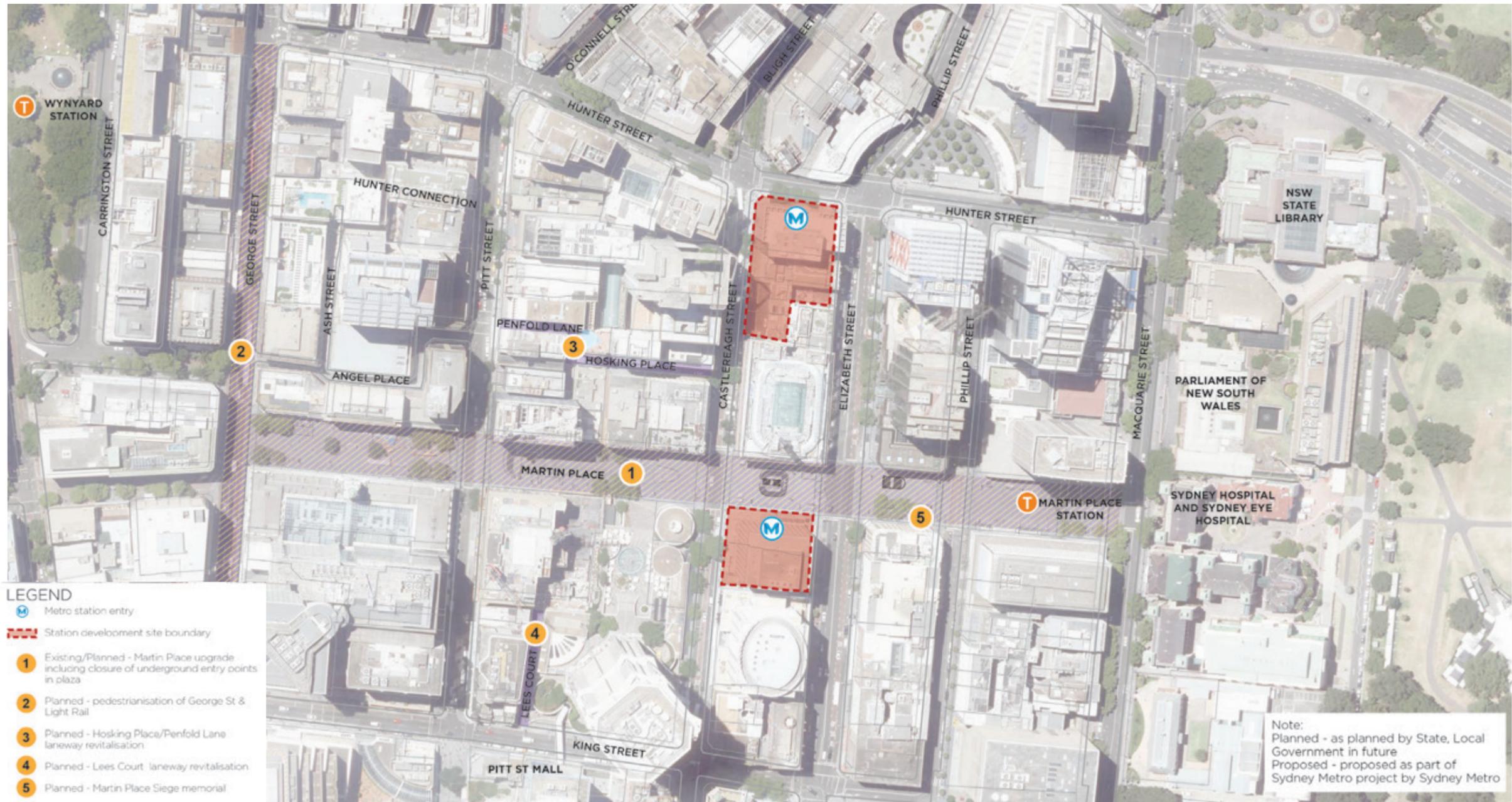
Hunter Street
Source: Cox Richardson



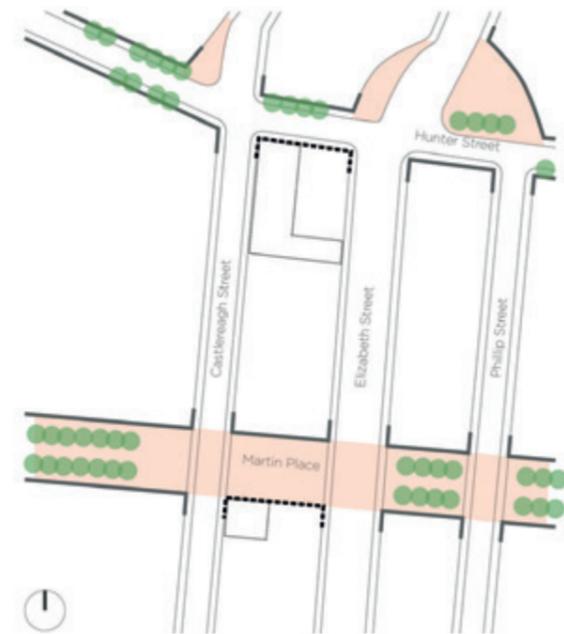
9 Castlereagh St, Sydney. The public domain is extended within the building’s site.
Source: Cox Richardson



Martin Place
Source: TfNSW



Martin Place Station Design Drivers



Urban Design Strategies

Supporting the City’s Public Domain Strategies
The City of Sydney’s master plan for the renewal of Martin Place sets a strategic framework for the works at Martin Place.

Sydney Metro can support this plan through the enhancement and activation of the public domain.



Entries as New Public Spaces

The new station entries are visually prominent and envisaged as generous “urban rooms”.

Extending the materiality and character of the public domain into the station creates the opportunity for a seamless experience.



Flagship Developments Over Stations

The entrances to the station provide an opportunity for renewal. Future development above these spaces should sensitively respond to the established built form and positively enhance the locality by providing high quality architecture and complementing the streetscape.



Direct and Legible Interchange

The new Metro station is integrated with the existing Martin Place rail station, allowing for direct subsurface interchange.

Bus stops are located on Castlereagh and Elizabeth Streets, as close as possible to station entries with Martin Place and Hunter Street acting as key connectors to these stops.

2.5 Pitt Street

Centre type: Global Sydney (Sydney CBD)

Primary Function: Destination

Catchment: Commercial, retail, residential, civic

Local Government Area: City of Sydney

Context

Pitt Street Station is located in the centre of Sydney CBD within the Town Hall civic precinct. Two entries are proposed - a northern entry on the north side of Park Street to the east of Pitt Street and a southern entry on the south side of Bathurst Street to the east of Pitt Street.

Pitt Street Station would serve the retail centre of the Sydney CBD on George and Pitt Streets north and west of the station, the civic and entertainment uses on George Street south and west and the emerging southern CBD residential developments between Park Street and Belmore Park.

The station would facilitate interchange with Light Rail on George Street and buses on the key corridors along Park, Elizabeth and Castlereagh Streets.

The station design would enable development to be built above the station entries.

Key design drivers:

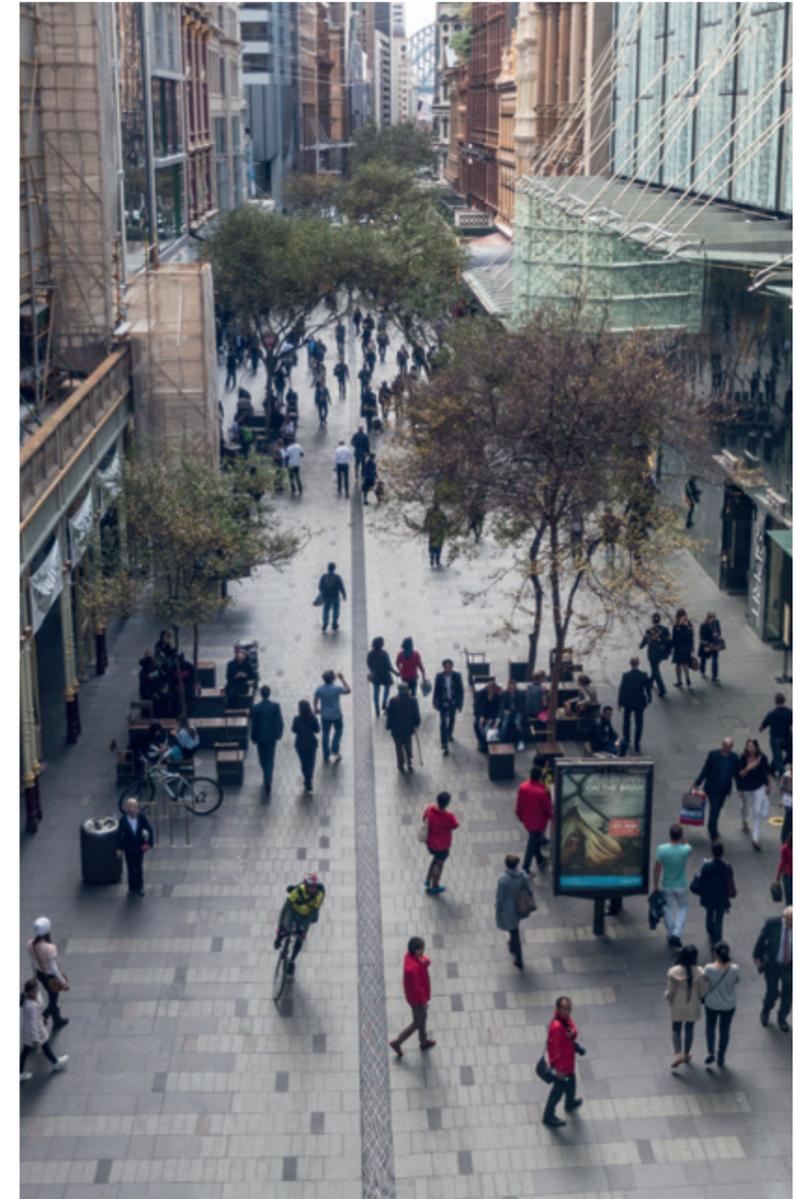
- Provide space for customers in a busy pedestrian environment by extending the public domain into the station entries.
- Integrate with the Sydney City Centre Access Strategy and other CBD planning.
- Anticipate connections to a future Town Hall Square and other nearby developments
- Extend the transport focus along Park Street, near Pitt Street.



Sydney Light Rail, George Street.
Source: TfNSW



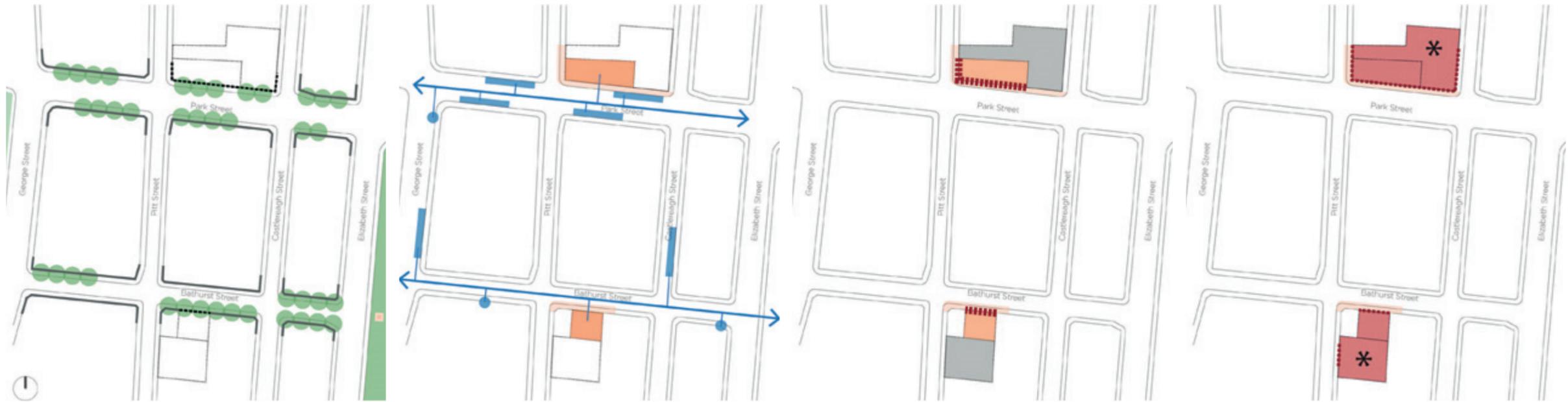
Park Street
Source: TfNSW



Pitt Street Mall
Source: TfNSW



Pitt Street Station Design Drivers



Urban Design Strategies

Linking Hyde Park to the Civic Precinct

Park and Bathurst Streets are key east-west connectors in the Sydney city centre, linking the harbour (at Darling Harbour) and green space (Hyde Park) on the edges of the city. These streets run through the heart of the city’s civic precinct, which contains Sydney Town Hall, St Andrews Cathedral and the Queen Victoria Building (as well as the planned Town Hall Square).

As increasingly important pedestrian streets, Park Street and Bathurst Street will require public domain improvements.

A Street-grid of Interchange

The new Sydney Metro station will be located within a network of public transport services spread over several street blocks. These services include rail (Town Hall and Museum stations), bus (primarily along Park, Castlereagh and Elizabeth Streets) and future light rail along George Street.

The entrances to the new Metro station address Park and Bathurst Streets. These two streets will be key to interchange movements, especially to the bus and light rail services that run along the north-south streets of the city.

Frontages to east-west streets

The primary address of both Metro entries will be to the east-west connectors, reinforcing the importance of these streets and facilitating interchange between transport modes.

Extending the materiality and character of the surrounding public domain into the station entries creates the opportunity for a seamless experience.

Optimising development over stations

The entrances to the station provide an opportunity to facilitate renewal. Future development above these spaces should reflect the context of the locality and positively contribute to the built form and character of the area.

2.6 Central

Centre type: Global Sydney (Sydney CBD)

Primary Function: Destination and interchange (intercity and suburban rail/bus/light rail/coach services/taxis)

Catchment: Commercial, education

Local Government Area: City of Sydney

Context

The proposed Central Metro Station would be located within the existing Central Station precinct. Access would be from upgraded entries at Eddy Avenue, Chalmers Street and the western forecourt.

The station would have a major interchange role with suburban and intercity trains, light rail, buses and coaches.

Central Station would provide access to retail and mixed use precincts in the locality including Haymarket, Chinatown, Central Park and Surry Hills and to educational facilities including the University of Technology Sydney, the University of Notre Dame, Australia and Sydney Institute of Technology.

Key design drivers:

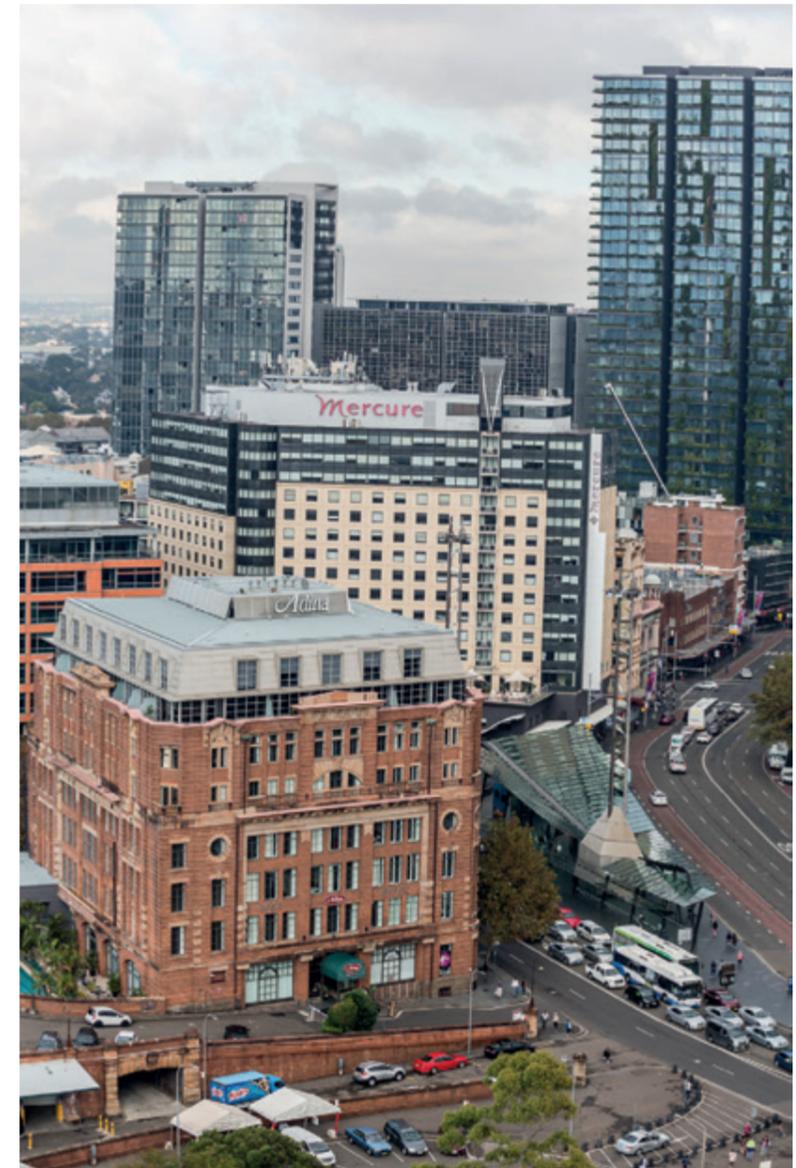
- Provide an efficient and high quality interchange for customers to connect to other public transport services.
- Respect the heritage significance of the Central Station precinct.
- Integrate with the Sydney City Centre Sydney Access Strategy and Central Station Precinct Plan.
- Support connectivity with major land uses and developments in the locality.



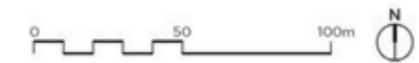
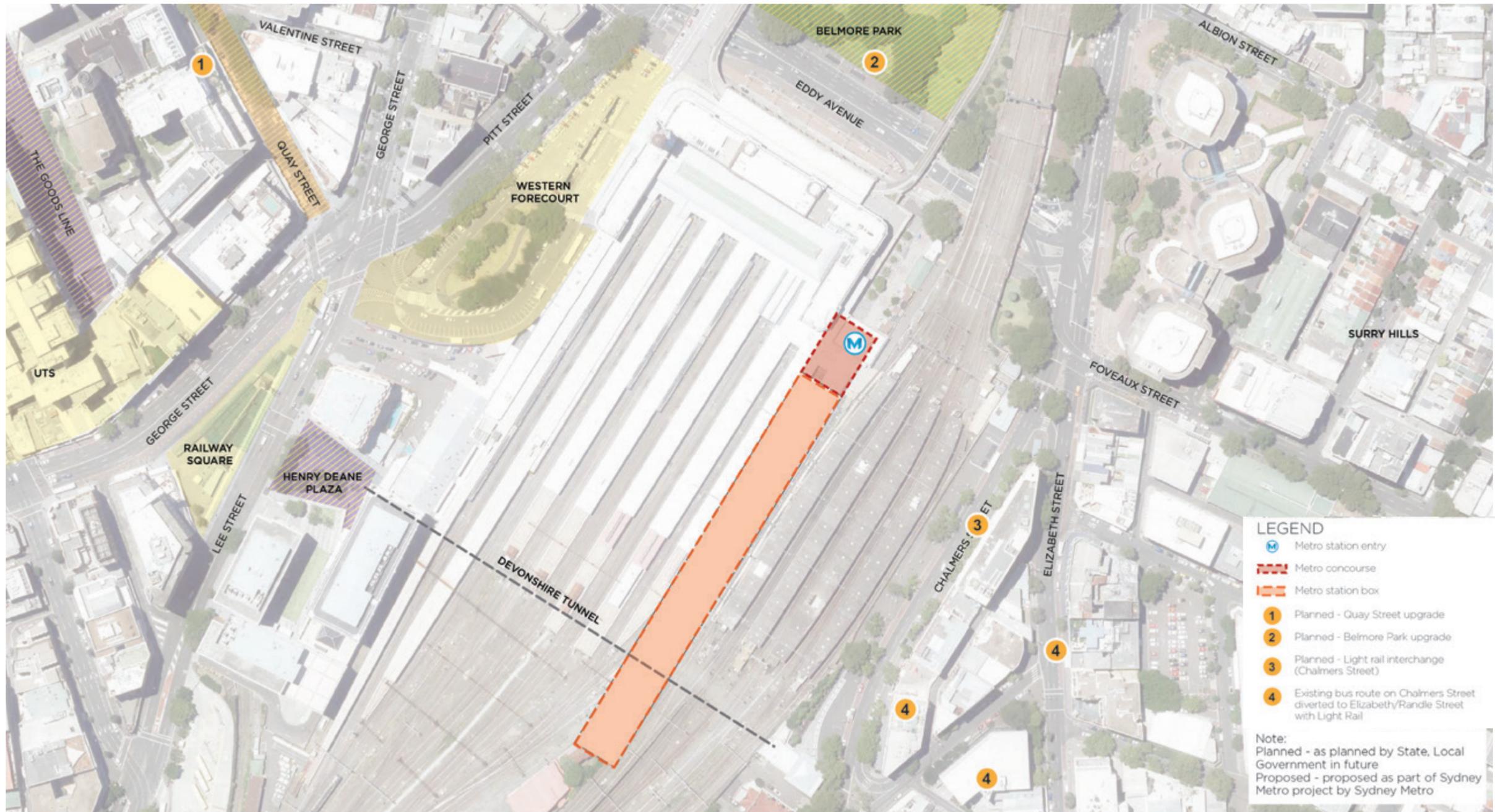
Central Station, view over suburban/city platforms
Source: TfNSW



Railway Square. Central Station is a major interchange place
Source: Cox Richardson



Central Station precinct. View over Railway Square looking south.
Source: TfNSW



Central Station Design Drivers

2.7 Waterloo

Centre type: Global Sydney (Sydney CBD)

Primary Function: Origin

Catchment: Residential

Local Government Area: City of Sydney

Context

The proposed Waterloo Station would be located between Botany Road and the Land and Housing Corporation landholdings in Waterloo.

A Waterloo Station would provide the opportunity to catalyse the development and urban renewal of the Land and Housing Corporation landholdings, connect the Australian Technology Park and the residents in the Waterloo/Redfern area with Sydney Metro.

The station design would enable development to be built above the station.

Key design drivers:

- Contribute to the sense of place and public domain.
- Create a new transport focus in Waterloo.
- Integrate the station with local improvement plans and make a positive contribution to the regeneration of this new urban community.



Botany Road, Waterloo
Source: Cox Richardson



Land and Housing Corporation site with Sydney CBD beyond.
Source: Cox Richardson



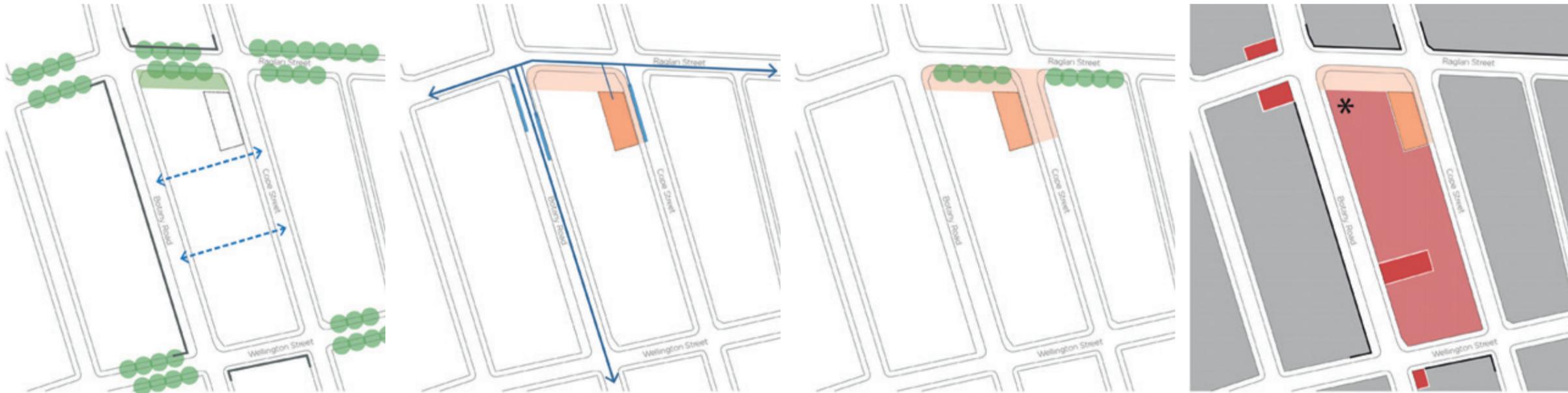
Raglan Street, Waterloo
Source: TfNSW



Artists Impression of Raglan Street, Waterloo
Source: UrbanGrowth NSW



Waterloo Station Design Drivers



Urban Design Strategies

Enhancing East-West Permeability

As the north-south streets of Waterloo (including Regent, Botany and Gibbons) Streets carry significant vehicular movement, east-west streets have greater potential for walking and cycling access. Raglan and Henderson Streets will become a key connector between the new Sydney Metro station, the Australian Technology Park and residential renewal areas to the east.

Opportunities for mid-block connections would enhance pedestrian connectivity and activity around the station site, breaking down the long street block bounded by Raglan and Wellington Streets.

Interchange Close to Station Entry

A number of bus routes run adjacent to the Sydney Metro station, with interchange (to stops on Botany Road, Henderson and Raglan Streets) on the southern side of Raglan Street. The location of bus stops on Botany Road may need to be reviewed to maximise connectivity with the station entry.

There are opportunities for safe and convenient access by cycles, taxi and drop-off to the station entrance from Cope Street.

Public Domain Defined and Activated

The new Metro station provides an opportunity to maximise connectivity, create activity and support growing residential populations through a network of high quality public spaces around the station. This would include spaces for customers to transfer between modes and upgrades to the pedestrian environment along major streets and any new laneway connections between Cope Street and Botany Road.

Support Renewal around the Station

The Metro station will support significant renewal in Waterloo and surrounding residential, commercial and industrial areas.

New buildings and spaces should contribute positively to the surrounding context by enhancing and integrating with existing heritage buildings, creating permeability through smaller development lots, delivering public spaces and public infrastructure, and considering issues of solar access, visual impact and acoustic privacy.

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Function & Experience

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About this Section

This section provides guidelines for the spatial and functional design of the urban and public domain in each station precinct, as well as the urban form of associated project development. The guidelines are articulated according to a number of core design strategies that guide the planning and design of Metro stations and their precincts. The strategies are grouped under the following family headings:

- Designing for Customers
- Identity
- Connectivity
- Development Opportunities

More detailed design guidelines and key requirements for each of these strategies will be included in the scope and performance documents during the procurement stage.



Chatswood Transport Interchange. Interchange places should be active public spaces that support a range of amenities for all users.

Architect: CoxDesignInc.

Source: COX Richardson, Photographer: John Gollings

3.1 An Easy Customer Experience

An easy customer experience is central to all aspects of the Sydney Metro design. A high quality customer transport product across the whole ‘door-to-door’ customer journey is critical to the customer experience. Sydney Metro will be a fast, safe, reliable, easy service for all customers.

Sydney Metro will cater to all customers including daily commuters, people with disabilities, families, visitors to Sydney and infrequent users.

The key public transport customer service design principles which underpin customer focused design are provided below.

This part of the document provides guidelines for the following areas of the customer experience:

- Door-to-Door Journey
- Customer Circulation
- Wayfinding and Legibility
- Customer Safety
- Comfort and Amenity
- Accessibility



Provide an easy experience for a diverse range of customers.
Source: TfNSW

Public transport customer service design principles Q

Balanced: Functional performance is balanced with customer service to achieve high levels of customer satisfaction.

Efficient, assisted service: A self-service system that is designed for easy, intuitive use. Where assistance may be required, support is available and easy to get.

Universally accessible: Meet the needs of all members of the community, accommodate the distinct needs of key customer segments.

Flexible: Able to adapt to a range of typical usage patterns and services while delivering a consistent level of service outcomes.

Legible and consistent: Reflect a service style and tone that is easily understood and consistent with the experience of an integrated transport system.

Responsive: A service system open to feedback from customers, that adjusts over time as needs and preferences change, and continuously improves.

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3.1.1 Door-to-Door Journey

Relevant Design Objectives

- 1 Ensuring an easy customer experience

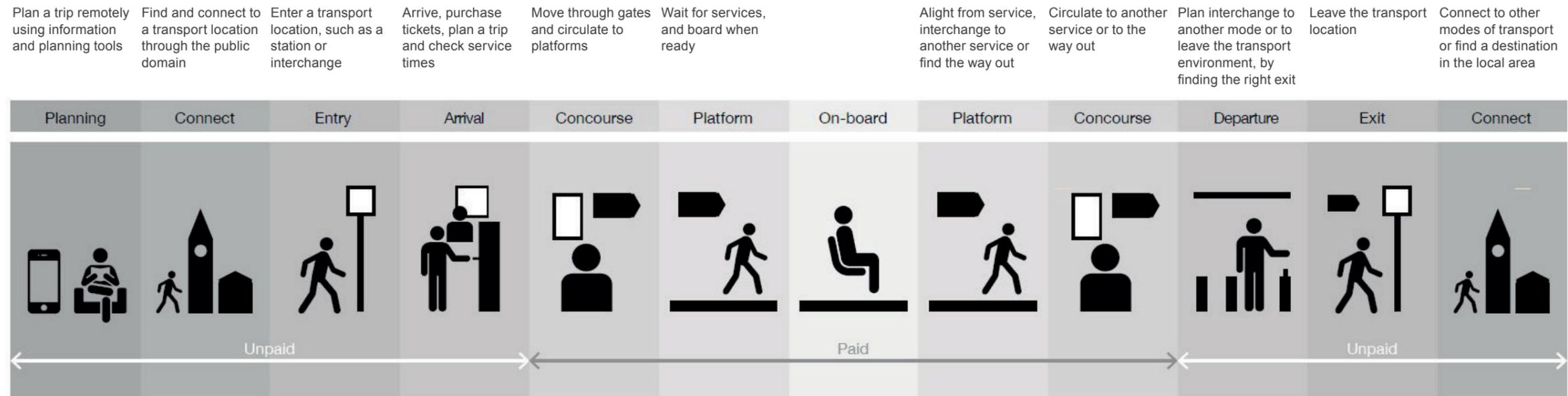
Principle

Ensure the customer experience is central to all aspects of Sydney Metro design by:

- Responding to customer experience drivers
- Ensuring adequate space to meet peak and longer-term demands
- Providing a comfortable and safe environment.

Guidelines

- Station designs should be developed in direct response to customer segments and user requirements. Customer journeys should be understood to appreciate their various requirements for their door-to-door journey.
- All aspects of design are to address the nine Public Transport Customer Experience Drivers; Timeliness, Convenience, Safety and Security, Comfort, Accessibility, Information, Ticketing, Cleanliness and Customer Service. All aspects of design should ensure an easy customer experience.
- The design of all elements of Sydney Metro is to cater for the diversity in customers including daily commuters, users with reduced mobility, families and infrequent users.
- Facilities within stations and precincts are to be grouped and integrated to minimise clutter, promote quality design and provide a consistent and easy customer experience.
- The design should provide calm, simple and uncluttered platforms and concourses to emphasise a safe, welcoming customer environment.
- A high level of connectivity to the public domain, passive surveillance and activation to station entries should be provided.
- Minimising decisions required and level changes should be considered to design an easy customer experience.



Customer Journey Stages
Source: TfNSW

3.1.2 Customer Circulation

Relevant Design Objectives

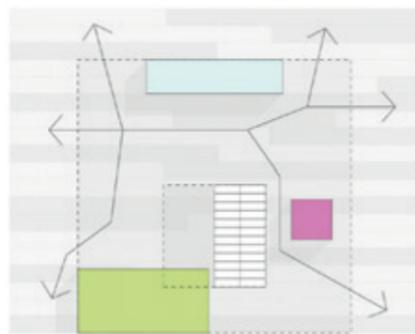
- 1 Ensuring an easy customer experience

Principle

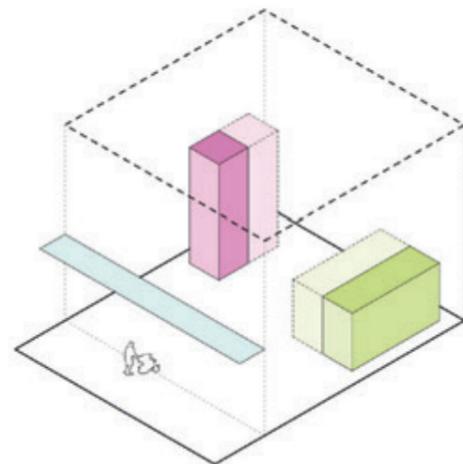
Provide adequate space to meet customer demands, including during peak periods and long-term patronage demands.

Guidelines

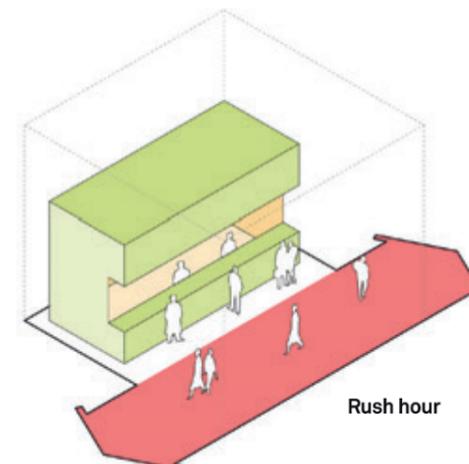
- Each part supports a different range of functions that must be addressed on station opening and in future scenarios.
- The movement capacity, configuration and spatial sequences of each of the Sydney Metro stations is to respond to patronage requirements as defined by a Level of Service (LOS) appropriate to the location and context.
- Pedestrian paths, crossings and spaces adjacent to Sydney Metro stations are to have sufficient capacity to meet potential demand with particular consideration of key decision points (gatelines, entrances, exits, customer queue zones) and information points. Where constrained, this may be met by extending the public domain into the station forecourt.
- The customer circulation paths within the station are to optimise timeliness for customers moving between concourse, platform, and station entries.
- Circulation paths are to be designed for convenience of connections into the station and from surrounding areas and other transport modes. These should reflect pedestrian desire lines as much as possible to enhance the convenience of circulation routes.
- Ancillary development and activities (retail, commercial or residential development, services areas and advertising structures) within Sydney Metro station sites are not to compromise efficient transport operations.
- All areas are to provide sufficient space for emergency access and movements in accordance with relevant design standards and legislation.



Station elements located to optimise permeability.



The effective space around each element can vary with the changing customer circulation requirements throughout the day.



Station design and capacity is to respond to primary customer flows and circulation during peak and off peak times.

