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The O'Connell Precinct

Traffic and Transport Report

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1. Introduction

This Traffic and Transport Report has been prepared by Arup and supports a Request for a Planning Proposal to amend the Sydney *Local Environmental Plan 2012* (Sydney LEP 2012) and amendments proposed to the Sydney *Development Control Plan 2012* (Sydney DCP 2012) in relation to the O'Connell Precinct. This report is submitted to the City of Sydney Council (Council) on behalf of the Proponent.

The O'Connell Precinct represents a significant opportunity in Central Sydney to renew a number of aging assets and deliver a highly engaging and multi-dimensional destination. The holistic reimaging of the Precinct will unlock a key site in the commercial heart of Sydney's Central Business District (CBD), bringing a sense of activity, wonder and respite to an established, but evolving locality.

This report should be read in conjunction with all supporting material associated with the Request for a Planning Proposal and DCP amendment, including the Planning Justification Report prepared by Ethos Urban.

1.1 Background

The Central Sydney Planning Strategy (CSPS) was first released in 2016 and sets out a 20-year land use vision, planning priorities and actions to achieve a place-led and people-led vision for growth in Central Sydney. The CSPS was endorsed by Council on 14 December 2020 and amendments to the Sydney LEP 2012 were gazetted in December 2021, supported by amendments to the Sydney DCP 2012.

The central aim of the CSPS is to support good growth while balancing the need to protect and enhance the public places that make the city unique. It provides the strategic direction to continue to position and strengthen Central Sydney as Australia's most productive and strategically important employment centre. Through 10 key moves, the CSPS balances opportunities for development to meet demands and achieve Council's job targets through to 2036, being 100,000 jobs unlocked through an additional 2.9 million square metres of employment generating floor space.

Importantly, the CSPS includes opportunities for increased height and density in key locations, balanced with environmental sustainability initiatives and sets criteria for excellence in urban design.

In this context, and over a number of years, the Proponent has brought together the individual sites within the O'Connell Precinct to amalgamate a collective Precinct with the intention to deliver a world class mixed-use commercial redevelopment.

The amendments sought to the Sydney LEP 2012 and Sydney DCP 2012 have been discussed with Council staff over a number of years, including presentations of the proposal to Council's Design Advisory Panel. These pre-lodgement discussions have informed the proposed amendments and scope of the assessment provided within this Report.

1.2 Site location and context

The O'Connell Precinct is located within the City of Sydney Local Government Area (LGA). The precinct is within the north-eastern portion of the Sydney CBD and is in immediate proximity to existing public transport infrastructure and a diverse mix of business, retail, cultural and entertainment destinations. The Precinct is also strategically located adjacent to the future Hunter Street metro station.

Specifically, the O'Connell Precinct has a total area of approximately 6,737m^2. It is irregular in shape and is bounded by Spring Street and Bent Street to the north, O'Connell Street to the south and south-east. The Precinct formally contains the following lots and street addresses:

- Lot 1 DP814858 or 1 O'Connell Street, Sydney
- Lot 2 DP172068, 8 Spring Street, Sydney
- Lot 1 DP176768 or 10-14 Spring Street, Sydney
- Lot 1 DP724946, 16 Spring Street, Sydney

- Lot 2 DP74923, 17 O'Connell Street, Sydney
- Lot 1 DP131917 or 19 O'Connell Street, Sydney
- Strata DP63932, 23 O'Connell Street, Sydney

Collectively, these lots and addresses are referred to as the 'Precinct' or 'Site' throughout this Report.

The Precinct includes a number of existing buildings, the majority of which are anticipated to be demolished to facilitate the renewal for the new commercial redevelopment. Of note, the heritage listed 19 O'Connell Street building will be retained, as well as the existing 1 O'Connell Street commercial building, including the heritage listed facades of 1 O'Connell Street.

The boundaries of the O'Connell Precinct are illustrated in Figure 1.

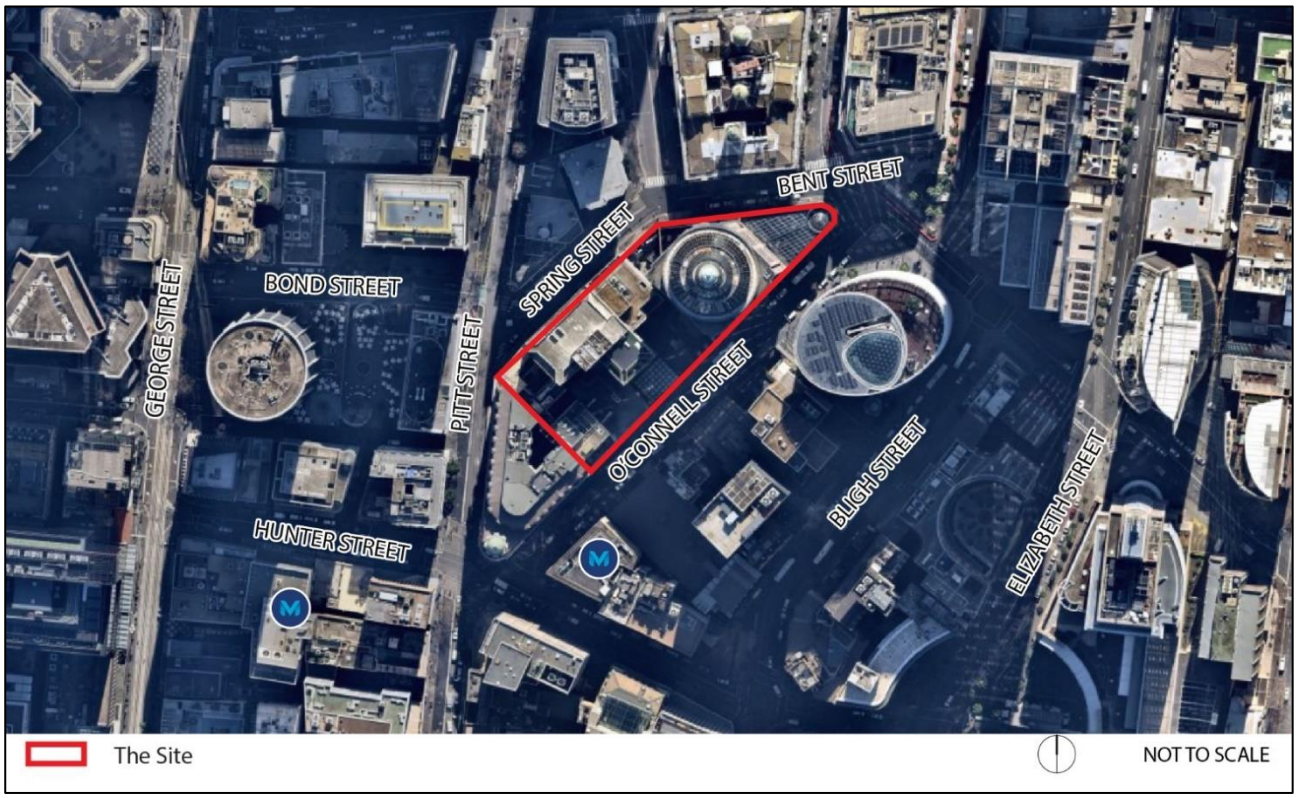


Figure 1 Site aerial

1.3 Overview of the Proposal

The reimaging of the O'Connell Precinct will comprise an integrated mixed-use commercial development that retains the existing 1 O'Connell Street commercial building, protects existing heritage, introduces a highly permeable and activated ground plane with enhanced public realm edges, provides opportunities for diverse cultural uses, and delivers premium grade commercial floor space in a new office tower.

The realisation of the O'Connell Precinct will be achieved through amendments to the Sydney LEP 2012 and Sydney DCP 2012.

The amendments sought to the Sydney LEP 2012 will encourage and facilitate the reimagining of the Precinct for a non-residential development by allowing for:

- An increased maximum Floor Space Ratio (FSR); and
- An increased maximum Building Height.

Supporting the amendments to the Sydney LEP 2012 is an amendment to the Sydney DCP 2012 which includes site-specific controls that address matters such as building envelope, pedestrian connections, parking, vehicular access and loading, design excellence, heritage, sustainability and public art.

The proposed amendments will directly support Council's endorsed CSPS by unlocking additional employment generating floor space. They will also facilitate significant public benefits to be delivered on site, through new cultural and community uses, east-west through site link, enhanced activation and embellishment of the public domain.

For assessment purposes, the vision for the O'Connell Precinct has been articulated in a reference design prepared by Matt Pullinger Architect and Stewart Architecture (provided under separate cover). This reference design is provided as a supporting document with the Request for a Planning Proposal and DCP amendment and serves as a baseline proof of concept.

1.4 Report structure

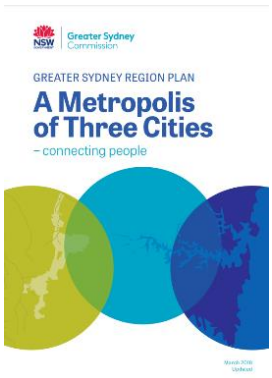
The structure of this report includes the following items:

- Assessment of the existing traffic and transport conditions surrounding the Precinct.
- An overview of the Precinct, parking provision, loading and servicing and access routes.
- The public domain vision for Spring Street and O'Connell Street.
- Multimodal trip generation of the proposed development.
- Impacts on the road network, public transport and walking and cycling.
- Travel demand management measures to support the proposed development.

2. Policy and guidelines

A summary of the relevant state and local government plans, policies and their relation to the O'Connell Precinct are shown in Table 1 and Table 2.

Table 1 Regional planning and policy context

Document	Overview	Relation to the O'Connell Precinct
	*Future Transport Strategy* (TfNSW, 2022) outlines Transport for NSW's vision and direction for the future of mobility in NSW. The vision aims to deliver safe, healthy, sustainable, accessible and integrated passenger and freight journeys. The Strategy works to deliver Transport for NSW's three high-level outcomes: • Connecting our customer's whole lives. • Successful places for communities. • Enabling economic activity.	The Precinct seeks to deliver transport outcomes that align with the Strategy's three guiding outcomes and strategic directions and will contribute to a modern, innovative and resilient transport network, including: • C2.1 – support car-free, active, sustainable transport options • C4.5 – improve the safety of people walking and cycling • P1.4 – improve parking provision and management • P2.2 – manage street space as public space • P2.3 – incorporate green, blue and OCHRE infrastructure • P2.4 – build well-designed transport infrastructure that makes places more liveable and successful • E2.1 – promote travel behaviour change to manage networks • E2.3 – improve the use and efficiency of our roads through road space allocation The Precinct lies within the Sydney metropolitan centre and would integrate with the Greater Sydney transport network, including walking and cycling networks and future Sydney Metro City and Southwest services at the Hunter Street Station.
	The Greater Cities Commission's *Greater Sydney Region Plan – A Metropolis of Three Cities* (Greater Sydney Commission, 2018) describes a vision of three cities (now six cities) where most residents live within 30 minutes of their jobs, education and health facilities, services and great places. To meet the needs of a growing and changing population, the vision seeks to transform Greater Sydney into a Metropolis of six cities including the Western Parkland City, Central River City and Eastern Harbour City.	The Precinct is located in the Eastern Harbour City and will contribute to the city's productivity and sustainability by providing much-needed employment floor space within the constrained Harbour CBD. The Precinct is well-connected to public transport services and will be located next to the future Hunter Street Station, which will make it highly accessible to the rest of Greater Sydney.

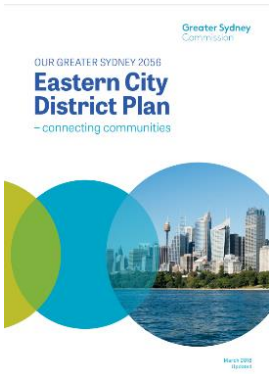
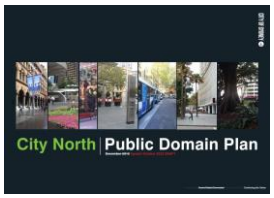
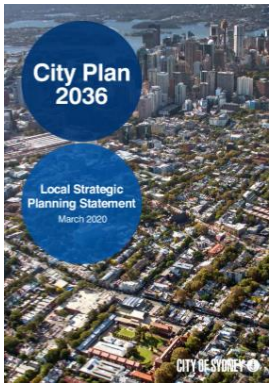
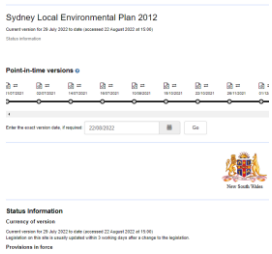
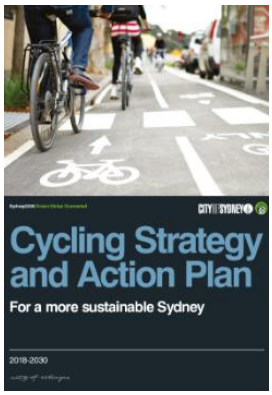
Document	Overview	Relation to the O'Connell Precinct
	The Greater Cities Commission's District Plans are 20-year plans to manage growth in the context of economic, social and environmental matters to achieve the 40-year vision for Greater Sydney. These plans are a guide to implementing *Greater Sydney Region Plan – A Metropolis of Three Cities* at a district level and acts as a bridge between regional and local planning.	The *Eastern City District Plan* (Greater Sydney Commission, 2018) outlines targets for significant jobs growth by 2036 as well as walkable and 30-minute cities. The site provides an opportunity to increase commercial floor space to facilitate significant jobs growth as well as to integrate the development with the adjacent Hunter Street Station and existing walking and cycling network. As a result, several Planning Priorities are strongly aligned with the aspirations for the Precinct, including: • E7 – Growing a stronger and more competitive Harbour CBD • E10 – Delivering integrated land use and transport planning and a 30-minute city • E11 – Growing investment, business opportunities and jobs in strategic centres
	The *Greater Sydney Services and Infrastructure Plan* (TfNSW, 2018) is TfNSW's 40-year plan for transport in Sydney. It is designed to support the land use vision for Sydney. Building on the state-wide transport outcomes identified in the Future Transport Strategy 2056, the Plan establishes the specific outcomes transport customers in Greater Sydney can expect and identifies the policy, service and infrastructure initiatives to achieve these.	The plan describes aspirational future city-shaping and city-serving networks in 2056 and commits to increasing the capacity of the city-serving network. This includes Sydney Metro services that will serve the Hunter Street Station and provide high frequency 'turn up and go' public transport capacity for travel to and from the Precinct.
	The *State Infrastructure Strategy* (Infrastructure NSW, 2022) sets out Infrastructure NSW's independent advice to the NSW Government on the State's needs and strategic priorities for infrastructure over the long term.	The *State Infrastructure Strategy* identifies a need to integrate infrastructure, land use and service planning. The strategy also notes that joined-up planning with the private sector needs to occur early on to allow Government to understand their needs and leverage their expertise and innovative proposals. Accordingly, the strategy supports regular updates to planning regulation and land use controls to reflect current circumstances, which the Planning Proposal aims to achieve. Key recommendations relating to the Precinct include: • 44 – Deliver more housing, jobs, amenities and services in locations where there is spare capacity in existing and planned infrastructure • 46 – Increase private sector participation, co-design and co-investment in State-sponsored precinct delivery

Table 2 Local planning and policy context

Document	Overview	Relation to the O'Connell Precinct
	The *City North Public Domain Plan* (City of Sydney, 2015) was prepared in 2015 to analyse the existing public domain and recommend improvements to increase amenity, connectivity and identity in the Sydney CBD. In 2022, an update to the Plan was prepared in response to changes in the planning and development context of City North. The proposed Plan has been endorsed by Council for public exhibition and sets the aspirations and vision for upgrades to the public domain to be undertaken in the future. Council adopted the plan in March 2023.	The Plan outlines potential design directions for streets and spaces near the O'Connell Precinct. These include: • Spring Street – closure of Spring Street to traffic and creation of a shared space including seating and outdoor dining. Vehicle access to the existing driveway at 1 O'Connell Street would be maintained. • O'Connell Street - Closure of O'Connell Street at Hunter Street to traffic to maximise public space adjacent to Hunter Street Station. • Bent Street – new crossing across Bent Street at Loftus Street. The public domain vision for the O'Connell Precinct (discussed in Section 4.1) aligns with the Plan. The vision aims to improve public amenity and reallocate road space to align with the expected future increase in foot traffic to and from the Hunter Street Station. The improvements include the closure of O'Connell Street at Hunter Street to traffic.

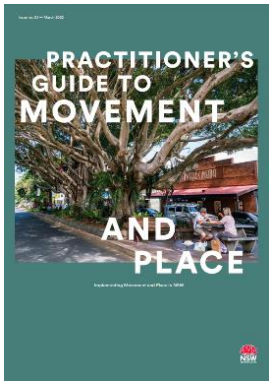
	*City Plan 2036: Local strategic planning statement* (City of Sydney, 2020) sets out a 20-year land use vision that links state and local strategies with the City's planning controls to guide development.	The planning statement sets out 13 priorities and a series of actions to guide future changes to planning controls. The Precinct is aligned with several priorities including:
		
		1. Movement for walkable neighbourhoods and a connected city
		  a. In Central Sydney, 92 per cent of trips are by foot but existing road space allocation does not reflect this demand for walking. Employment growth (supported by new metro stations) will create even more intense concentrations of pedestrians.
		  b. To maximise the economic advantage of new metro services and stations, job growth is the priority within Central Sydney.
		
		7. Growing a stronger, more competitive Central Sydney
		  a. Planning controls in Central Sydney need to support commercial developments, otherwise there will be insufficient floor space to accommodate the forecast demand for jobs.
		  b. There is increasing competition for space fuelled by projected business demand, demand for inner city living and escalating population growth.

	Central Sydney has a limited capacity to grow and adapt because of its natural containment, heritage and the growth of residential development. The CSPS (City of Sydney, 2022) sets out a planning framework with clear policies and careful management where the opportunity to grow employment floor space is protected from high residential demand and the effects of strata subdivision of prime land.	The strategy builds on past strategies to adapt to current needs and has a clear plan for action and implementation. It refocuses the current development environment that favours residential use of land towards accommodating employment needs while keeping a balance with social infrastructure and amenity. The strategy outlines 10 key moves which include opportunities for additional height and density in the right locations, balanced with environmental sustainability initiatives, and sets criteria for excellence in urban design. The Precinct can contribute to the following key moves: 4. Provide for employment growth in new tower clusters. 8. Move people more easily by prioritising streets for walking and cycling and expanding the pedestrian and open space network.

Document	Overview	Relation to the O'Connell Precinct
	The Sydney LEP 2012 is a planning instrument that outline the local environmental planning provisions for land within the City of Sydney.	The Planning Proposal seeks to amend the Sydney LEP 2012 to allow for increased FSR and maximum building height for the Precinct. The Sydney LEP 2012 has been reviewed the confirm the maximum vehicle parking threshold that is permissible within the site based on the uses and FSR of the proposed development.
	The Sydney DCP 2012 supplements the Sydney LEP 2012 and provides more detailed provisions to guide development.	The Planning Proposal seeks to amend the Sydney DCP 2012 for site-specific controls such as building envelope, pedestrian connections, parking, vehicular access and loading, heritage, sustainability and public art. The Sydney DCP 2012 has been used as a guiding document to understand requirements for car share spaces, motorcycle parking, accessible parking, service vehicles and bicycle parking.
	The *Cycling Strategy and Action Plan 2018-2030* responds to Council's target of a 10% bicycle mode share target by 2030 within the city.	The Precinct will align with the plan and Priority 3 '*supporting businesses*' by providing appropriate bicycle and end of trip facilities to encourage cycling.

The relevant traffic engineering and transport planning guidelines and standards considered in this report are outlined in Table 3.

Table 3 Guidelines and standards

Document	Overview	Relation to the O'Connell Precinct
	The *Practitioner's Guide to Movement and Place* (Government Architect, 2020) is one component of the NSW Government's Movement and Place Framework. The guide outlines a collaborative method for practitioners, stakeholders and the community to implement the Movement and Place Approach in existing contexts and comparing future options.	This report has adopted the Movement and Place approach to ensure that the key principles are embedded into plans for streets within the Precinct.

Document	Overview	Relation to the O'Connell Precinct
 **Guide to Traffic Generating Developments.** Version 2.2 October 2002	The *Guide to Traffic Generating Developments* (RTA, 2002) outlines all aspects of traffic generation considerations relating to developments. The guide provides background into the likely impacts of traffic from various types of developments. In 2013, technical direction *TDT 2013/04a* (RMS, 2013) was prepared to supplement the guide with updated trip and parking generation surveys.	The assessment and traffic generation of the Precinct was developed with consideration of best practice outlined in the *Guide to Traffic Generating Developments* and *TDT 2013/04a*.

3. Existing transport conditions

3.1 Mode share

Australian Bureau of Statistics (ABS) Journey to Work (JTW) data from the 2016 census was used to understand the pre-COVID-19 travel behaviour and mode shares around the Precinct. As shown in Figure 2, the Precinct is located within the *Sydney – Haymarket – The Rocks Statistical Area 2* (SA2), which encompasses the Sydney Inner City area.

Figure 2 Sydney – Haymarket – The Rocks SA2

The mode shares for workers in the Sydney Inner City are shown in Table 4.

Table 4 Existing JTW mode share for workers in the Sydney Inner City (Source: JTW data, ABS, 2016)

Mode of travel	Mode share
Train	51%
Bus	20%
Ferry	3%
Light rail	< 1%
Taxi	1%
Car, as driver	12%
Car, as passenger	4%
Motorcycle	1%
Bicycle	1%
Walked only	6%

For workers travelling to the Sydney Inner City, private vehicle accounts for a relatively low mode share with the majority of workers using train and bus. A smaller percentage of workers walk only to work.

It should be noted that changes to transport network within the Sydney CBD has changed since this data was collected in 2016. The introduction of Sydney Light Rail may have contributed to an increase in light rail trips for those travelling to the CBD from areas such as Randwick and Kingsford.

3.2 Public transport

The Precinct is located in proximity to train, bus, light rail and ferry services. The location of key public transport stops near the Precinct and walking routes to these stops are shown in Figure 3.

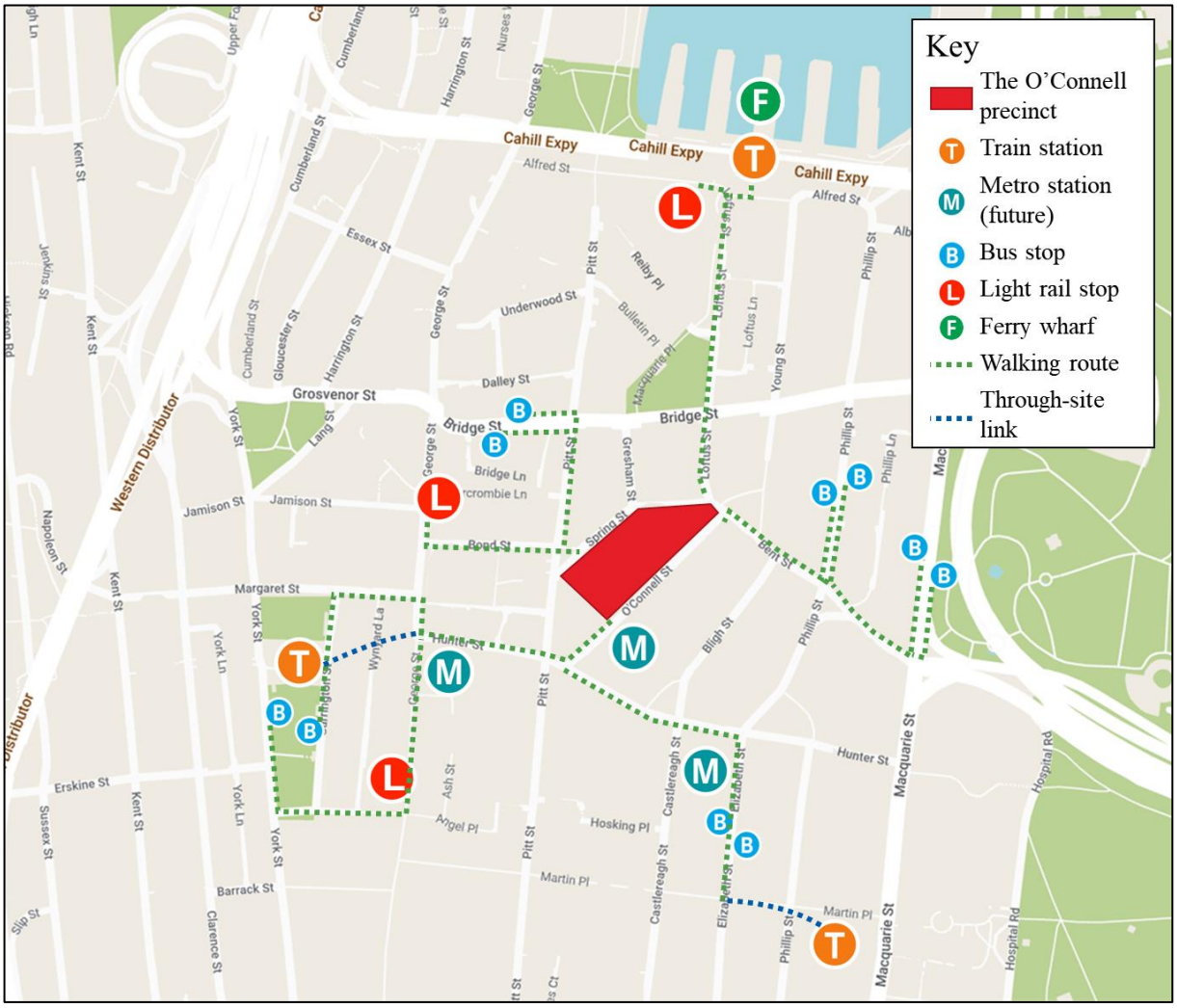


Figure 3 Key public transport stops near the Precinct

3.2.1 Train

The Precinct is well-connected to train services and is located near the following train stations:

- Wynyard train station (approximately 200 metres walking distance southwest of the Precinct) via the underground walkway that connects to George Street.
- Martin Place train station (approximately 500 metres walking distance southeast of the Precinct).
- Circular Quay train station (approximately 400 metres north of the Precinct).

Multiple lines in the Sydney Trains network are accessible via these stations and include:

- T1 North Shore and Western Line.
- T2 Inner West and Leppington Line.
- T3 Bankstown Line.
- T4 Eastern Suburbs and Illawarra Line.
- T8 Airport and South Line.
- T9 Northern Line.
- CNN Central Coast and Newcastle Line and South Coast Line.

3.2.2 Sydney Metro City and Southwest

Sydney Metro City and Southwest is currently under construction and would provide high frequency 'turn up and go' rail services between Bankstown and the existing Sydney Metro North West services at Chatswood (shown in Figure 4). New metro stations are currently being constructed in the Sydney CBD, including the Martin Place Station located approximately 200 metres southeast of the Precinct. Sydney Metro City and Southwest services are expected to commence operation between Chatswood and Sydenham in 2024 and between Sydenham and Bankstown in 2025.

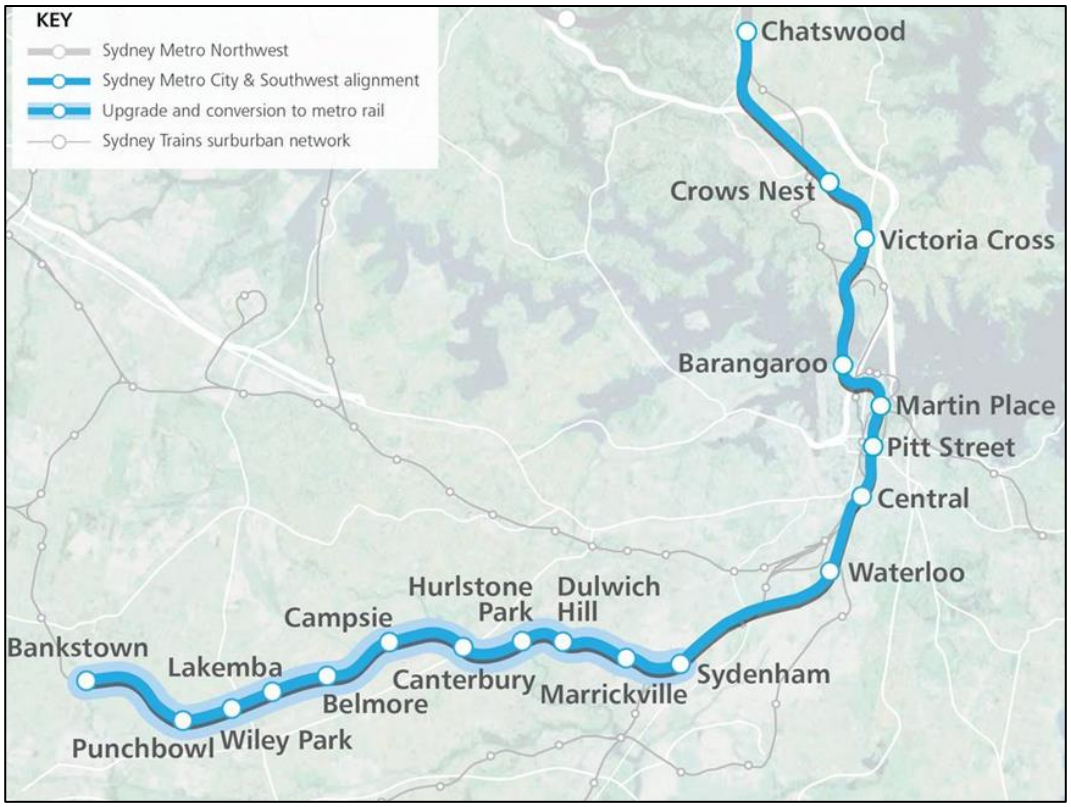


Figure 4 Sydney Metro City and Southwest alignment (Source: Transport for NSW)

The location of the Martin Place Station is shown in Figure 5 and will be accessible via Martin Place, Hunter Street, King Street, Castlereagh Street, Elizabeth Street, Phillip Street and a potential underground pedestrian link to Hunter Street Station.

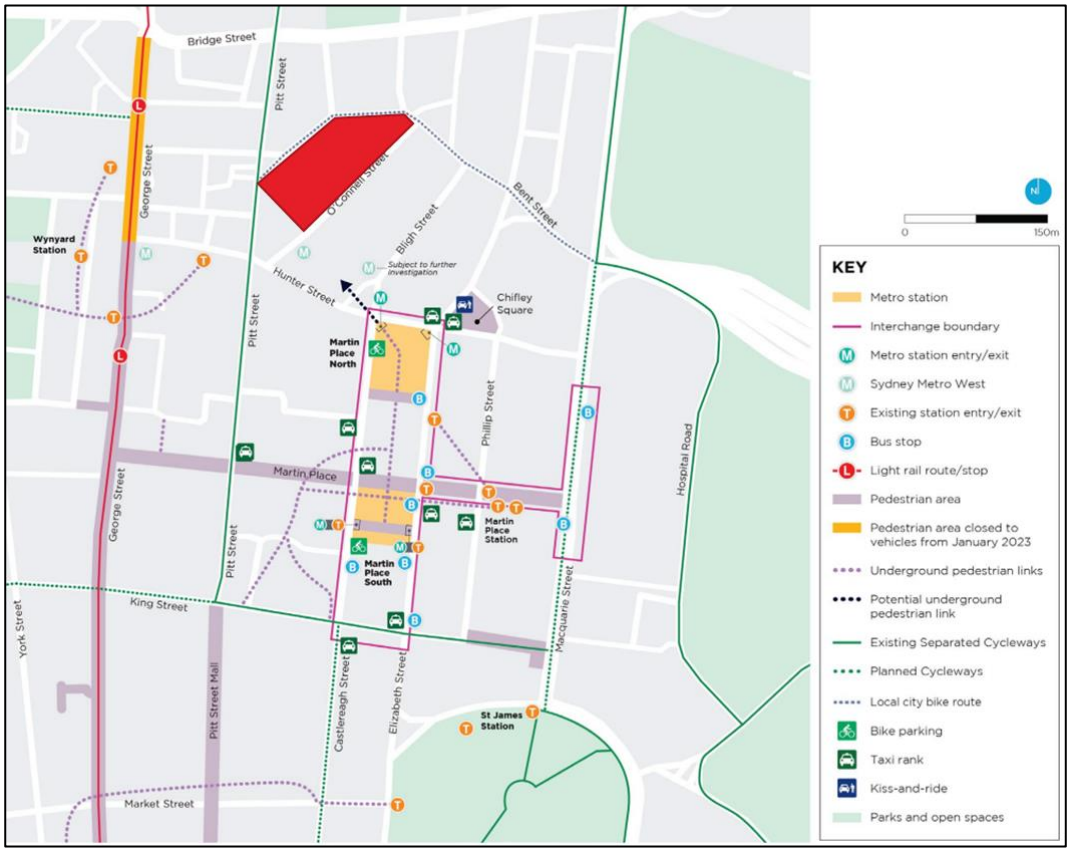


Figure 5 Martin Place Station interchange access plan (Sydney Metro, 2023)

3.2.3 Sydney Metro West

Sydney Metro West is also currently under construction and would provide rail services between Westmead / Parramatta and the Sydney CBD (shown in Figure 6). The Hunter Street Station eastern entrance will be located directly adjacent to the south-east of the Precinct. Sydney Metro West services are expected to commence operation in 2032.

Figure 6 Sydney Metro West alignment (Source: Sydney Metro, 2022)

The indicative layout of the Hunter Street Station is shown in Figure 7. The Hunter Street Station would be accessible via O'Connell Street, Hunter Street, George Street, Pitt Street via a through site link and a proposed underground pedestrian link to Martin Place Station.

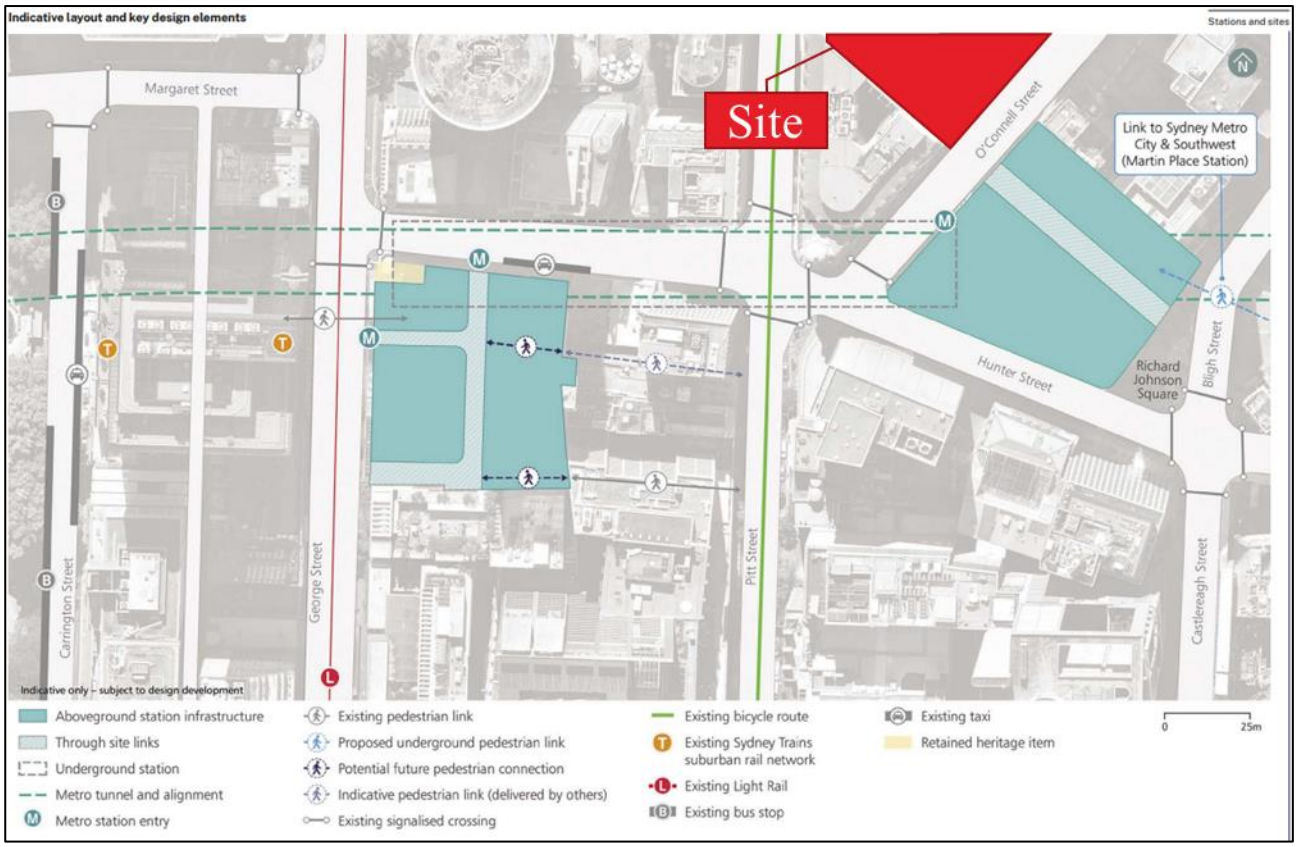


Figure 7 Hunter Street Station indicative layout (Source: *Rail infrastructure, stations, precincts and operations – Westmead to Sydney CBD Environmental Impact Statement Summary*, Sydney Metro, 2022)

3.2.4 Bus

The Precinct is located within walking distance of multiple bus stops in the Sydney CBD. Each of these service various routes. Key bus stops are located on Bridge Street, Phillip Street, Clarence Street, York Street, Carrington Street and Elizabeth Street. The location of the different stops in relation to the Precinct is shown on Figure 3. The services that can be accessed from each of these stops are detailed in Table 5.

Table 5 Bus stops near the Precinct

Bus stop	Key bus routes and areas served	Typical peak hour frequency
Bridge Street west of Pitt Street (approximately 200 metres walking distance northwest of the Precinct)	Buses service the North Shore, including: 115 – Chatswood to City Bridge St via North Sydney 201 – Cremorne to City Bridge St 202 – Northbridge to City Bridge St via North Sydney 204 – Northbridge to City Bridge St via Freeway 205 – East Willoughby to City Bridge St via Freeway 206 – East Lindfield to City Bridge St via Freeway 207 – East Lindfield to City Bridge St via North Sydney 208 – East Lindfield to City Bridge St via Northbridge & North Sydney 263 – Crows Nest to City Bridge St via Cremorne	2-10 services per hour per direction
Phillip Street near Museum of Sydney (approximately 250 metres walking distance east of the Precinct)	Buses service the Sydney Inner City and Eastern Suburbs, including: 304 – City Circular Quay to Green Square (Loop Service) 333 – North Bondi to City Circular Quay via Bondi Junction 343 – Kingsford to City Circular Quay 396 – Maroubra Beach to City Circular Quay	6-12 services per hour per direction
Macquarie Street near the Royal Botanic Gardens (approximately 350 metres walking distance east of the Precinct)	200 – Bondi Junction to Gore Hill	3 services per hour per direction
Elizabeth Street near Martin Place (approximately 350 metres walking distance southeast of the Precinct)	Buses service the Inner West and South West, including: 412 – Campsie to City Martin Place via Earlwood & Dulwich Hill 423 – Kingsgrove Depot to City Martin Place 423X – Kingsgrove to City Martin Place (Express Service) 426 – Dulwich Hill to City Martin Place 428 – Canterbury to City Martin Place 428X – Canterbury to City Martin Place (Express Service) 430 – Sydenham to City Martin Place 431 – Glebe Point to City Martin Place 438X – Abbotsford to City Martin Place (Express Service) 470 – Lilyfield to City Martin Place	4-12 services per hour per direction
Carrington Street (approximately 500 metres walking distance southwest of the Precinct)	Buses service the North Shore and Northern Beaches, including: 168X – Balgowlah to City Wynyard via North Balgowlah (Express Service) 170X – Manly to City Wynyard (Express Service) 171X – Balgowlah to City Wynyard via Clontarf (Express Service) 172X – Warringah Mall to City Wynyard via North Balgowlah (Express Service) 173X – Warringah Mall to City Wynyard via Balgowlah Shops (Express Service) 174X – Narraweena to City Wynyard (Express Service)	3-8 services per hour per direction

Bus stop	Key bus routes and areas served	Typical peak hour frequency
	176X – Dee Why to City Wynyard via North Curl (Express Service) 177X – Dee Why to City Wynyard via Wingala (Express Service) 180X – Collaroy Plateau to City Wynyard (Express Service) 181X – Narrabeen to City Wynyard (Express Service) 190X – Avalon Beach to City Wynyard (Express Service) B1 – B-Line Mona Vale to City Wynyard	
York Street (approximately 550 metres walking distance southwest of the Precinct)	Buses service the North Shore and North West, including: 100 – Taronga Zoo to City QVB (Loop Service) 120 – Chatswood to City QVB (Loop Service) 194 – St Ives to City QVB 194X – St Ives to City QVB (Express Service) 243 – Spit Junction to Neutral Bay and City Wynyard via North Cremorne 246 – Balmoral Heights to City Wynyard 249 – Beauty Point to City Wynyard 251 – Lane Cove West to City Wynyard via Freeway 253 – Riverview to City Wynyard via Freeway 270 – Terrey Hills to City QVB 270X – Terrey Hills to City QVB (Express Service) 271 – Belrose to City QVB 273 – Killarney Heights to City QVB via Forestville 274 – City QVB to Davidson via Frenchs Forest 285 – Lane Cove West to City Wynyard via Freeway 293 – Marsfield to City Wynyard 297 – Denistone East to City Wynyard via Lane Cove Tunnel 311 – Central Belmore Park to City Millers Point via Darlinghurst and Potts Point 320 – Green Square to Gore Hill 324 – Watsons Bay to Walsh Bay via Old South Head Rd 325 – Watsons Bay to Walsh Bay via Vaucluse Rd 594 – North Turramurra to City QVB 607X – Bella Vista Station to City QVB (Express Service) 610X – Castle Hill to City QVB via Lane Cove Tunnel (Express Service) 613X – Bella Vista to City QVB (Express Service) 614X – Crestwood Reserve to City QVB (Express Service) 615X – North Kellyville to City QVB (Express Service) 616X – Kellyville Ridge to City QVB (Express Service)	1-16 services per hour per direction

3.2.5 Light rail

The Precinct is located in the vicinity of the following light rail stops:

- Bridge Street light rail stop (approximately 200 metres walking distance west of the Precinct).
- Wynyard Light rail stop (approximately 350 metres walking distance southwest of the Precinct).

These stops are serviced by the L2 Randwick Line and L3 Kingsford Line, which provide connectivity between the Sydney CBD, Surry Hills, Moore Park, Randwick and Kingsford. Each service runs at a frequency of approximately 7 services per hour during peak periods.

3.2.6 Ferry

The Precinct is located approximately a 400m walk to the north from Circular Quay Wharf. Circular Quay Wharf is a major ferry terminal and is serviced by multiple services between the Sydney CBD, Eastern Suburbs, Lower North Shore and Western Sydney including:

- F1 Manly.
- F2 Taronga Zoo.
- F3 Parramatta River.
- F4 Pyrmont Bay.
- F5 Neutral Bay.
- F6 Mosman Bay.
- F7 Double Bay.
- F8 Cockatoo Island.
- F9 Watson Bay.

In July 2022, Transport for NSW announced a $216 million investment for a major transformation of Circular Quay. The key features of the Circular Quay Renewal Project include:

- New accessible wharves, with expanded customer waiting areas and improved views to the harbour.
- An upgraded Circular Quay station, with widened entrances, new lifts and escalators to the platforms.
- Improved retail experience with new shops, places to eat, and experiences to encourage activity during the day and night.
- An expanded pedestrian walkway on the Cahill Expressway to create an unrivalled public space to enjoy the spectacular views and provide new and immersive cultural experiences.

The project is currently in the early design development phase, with detailed design and statutory planning expected to occur in 2024.

3.3 Walking and cycling

3.3.1 Walking

Walking facilities surrounding the Precinct are well-developed with footpaths on both sides of all streets. Signalised crossings are provided at all signalised intersections and are supplemented by zebra crossings at locations on Bent Street and Spring Street (shown in Figure 8). Pedestrian volumes are generally high throughout the day given the density commercial developments in the vicinity of the Precinct. Streets surrounding the Precinct are designated ‘high pedestrian activity’ areas with a 40 km/h speed limit.

Further assessment of the walking environment surrounding the Precinct is presented in the *O’Connell Precinct Pedestrian Planning* study (Arup, 2022).

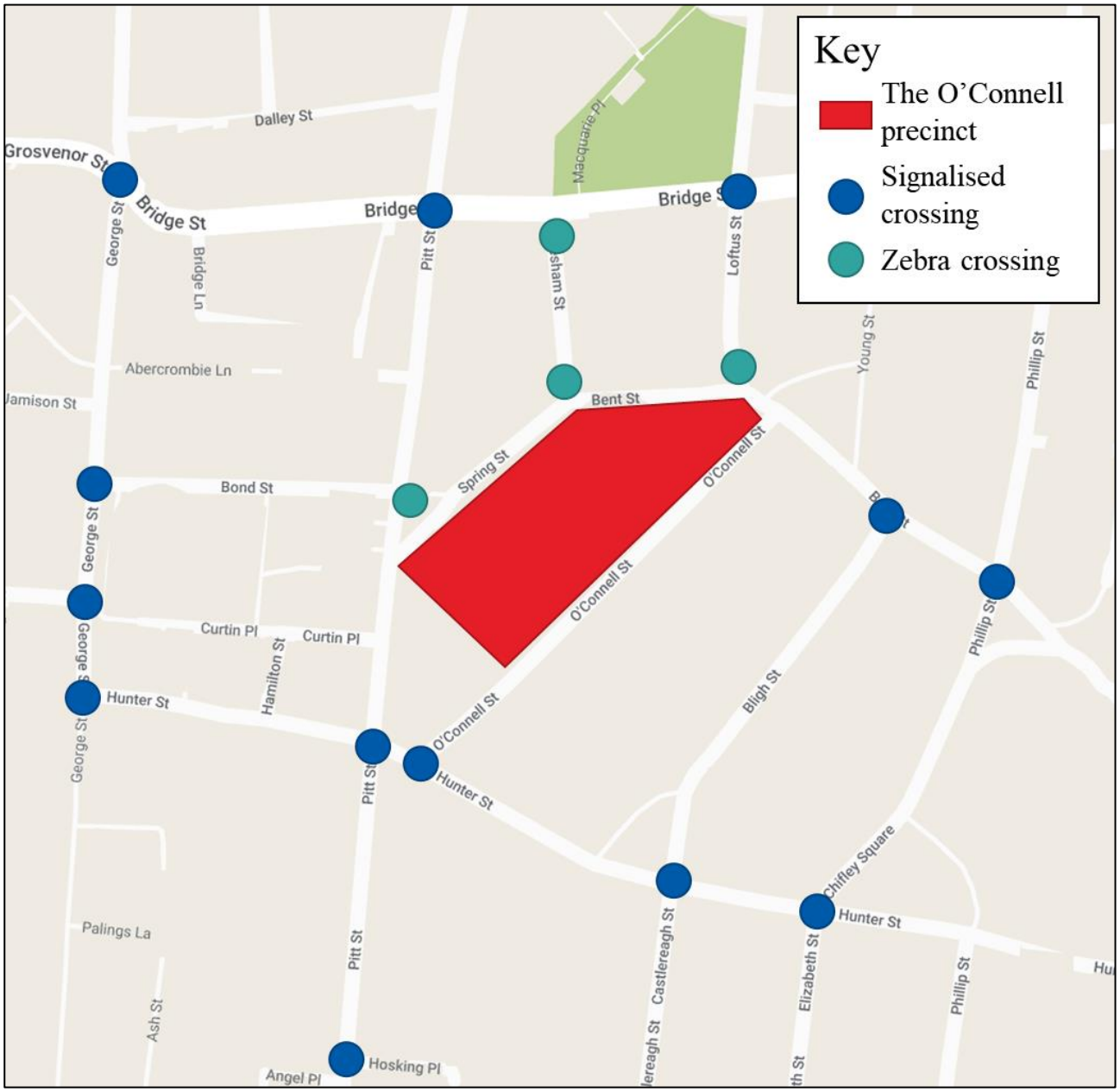


Figure 8 Walking facilities near the Precinct

3.3.2 Cycling

Cycling facilities surrounding the Precinct include the following on-road and off-road cycling paths:

- A temporary pop-up cycleway on Pitt Street between King Street and Alfred Street, which connects to Circular Quay. As of August 2022, City of Sydney has announced that the pop-up cycleway will be converted to a permanent cycleway in the future.
- A cycleway on King Street between Pitt Street and Phillip Street.
- A shared path on the eastern side of Macquarie Street between Bent Street and Alfred Street, which connects to the shared path on the Cahill Expressway.

Council's *Cycling Strategy and Action Plan 2018-2030* (City of Sydney, 2018) identifies future regional, local and recreational cycling routes in the City of Sydney LGA. An extract is shown in Figure 9 and identifies the following planned routes:

- An extension of the King Street cycleway to Kent Street and Macquarie Street. This route would connect to a future regional cycling route along Castlereagh Street, Park Street, College Street and William Street to Woolloomooloo and Darlinghurst.
- A local cycling route along Spring Street, Bent Street and Macquarie Street connecting to existing local routes along Macquarie Street and The Domain.

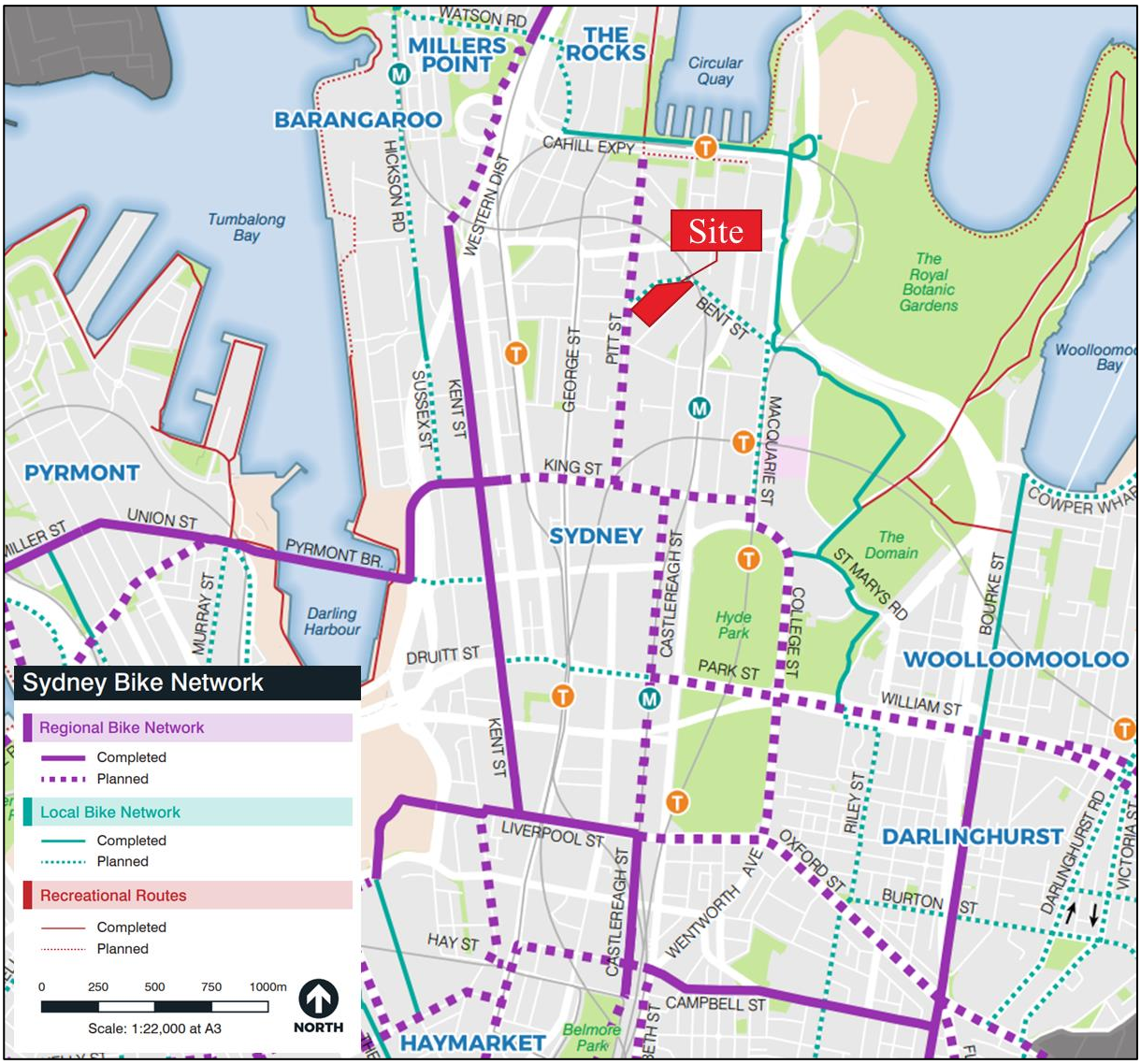


Figure 9 Existing and planned cycling routes near the Precinct (Source: *Cycling Strategy and Action Plan 2018-2030*, City of Sydney, 2018)

3.4 Road network and parking

The Precinct is bounded by Spring Street and Bent Street to the north and O'Connell Street to the south and south-east. O'Connell Street is a one-way, two-lane road that includes kerbside bus layover zones, loading zones and parking. Spring Street and Bent Street are two-way, two-lane roads that also include kerbside loading zones, bus zones, ticketed parking and taxi zones on the northern side.

Parking is time-restricted, ticketed and only permitted outside of peak traffic periods. Vehicle access to existing properties within the Precinct is located on Bent Street and Spring Street.

Existing kerbside restrictions for streets adjacent to the Precinct are shown in Figure 10.

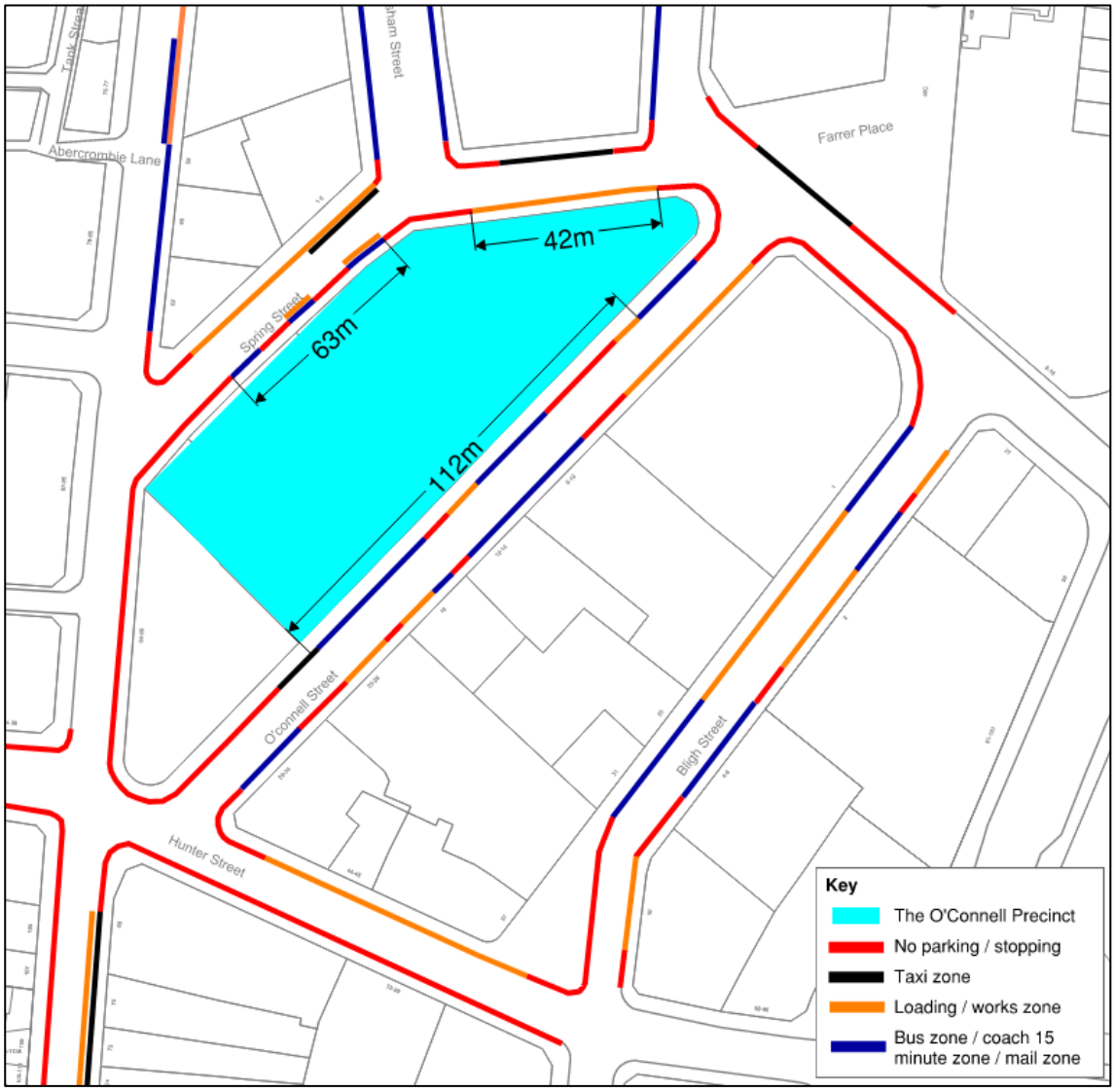


Figure 10 Kerbside restrictions in the vicinity of the Precinct

3.5 Existing parking provision within the Precinct

95 public car parking spaces are provided in the 1 O'Connell Street car park with additional spaces provided in other lots within the Precinct. The 1 O'Connell Street car park is a paid parking facility and operates from 6am to 10pm on weekdays and 9am to 10pm on weekends.

4. Proposed development

4.1 Public domain vision

As discussed in Section 2, Council's *City Plan 2036: Local strategic planning statement* states that existing road space allocation within the Sydney CBD does not reflect the proportion of trips that are undertaken on foot. This need to reallocate road space and improve the urban realm around the Precinct is heightened by the increased commercial densities permitted under the Central Sydney Planning Strategy and given the location of the Hunter Street Station eastern entrance on the southern side of O'Connell Street. Streets around the Precinct are expected to experience a significant uplift in the pedestrian volumes (further details of this are presented in the *Pedestrian Assessment Study*).

To support these future demand patterns, the Precinct aims to produce a highly integrated and permeable ground plane that unlocks the value of the street space and creates active frontages that provide significant public benefit. This vision will be achieved by delivering a through site link connecting Spring Street and O'Connell Street. In addition to this a range of public realm changes have been considered to further improve amenity and reallocate road space to align with the future foot traffic expected. Many of these improvements align with the *City North Public Domain Plan.* This change would see a transition from car dominated streets to spacious public spaces that support vibrancy, interaction and collaboration.

The Proposed Scheme is shown in Figure 11 and is consistent with the *City North Public Domain Plan*, including the following public domain improvements:

- Upgraded footpaths and new mass planting of trees on O'Connell Street, Bent Street, Spring Street, Pitt Street and footpaths within the Precinct boundary.
- Through site link connecting Spring Street and O'Connell Street.
- Retainment of existing trees.
- Road diet on O'Connell Street, which would become a two-lane cul-de-sac closed to Hunter Street and a shared zone.
- Implementation of a 10 km/h shared area and new paving finish on O'Connell Street, Spring Street and Bent Street east of O'Connell Street.

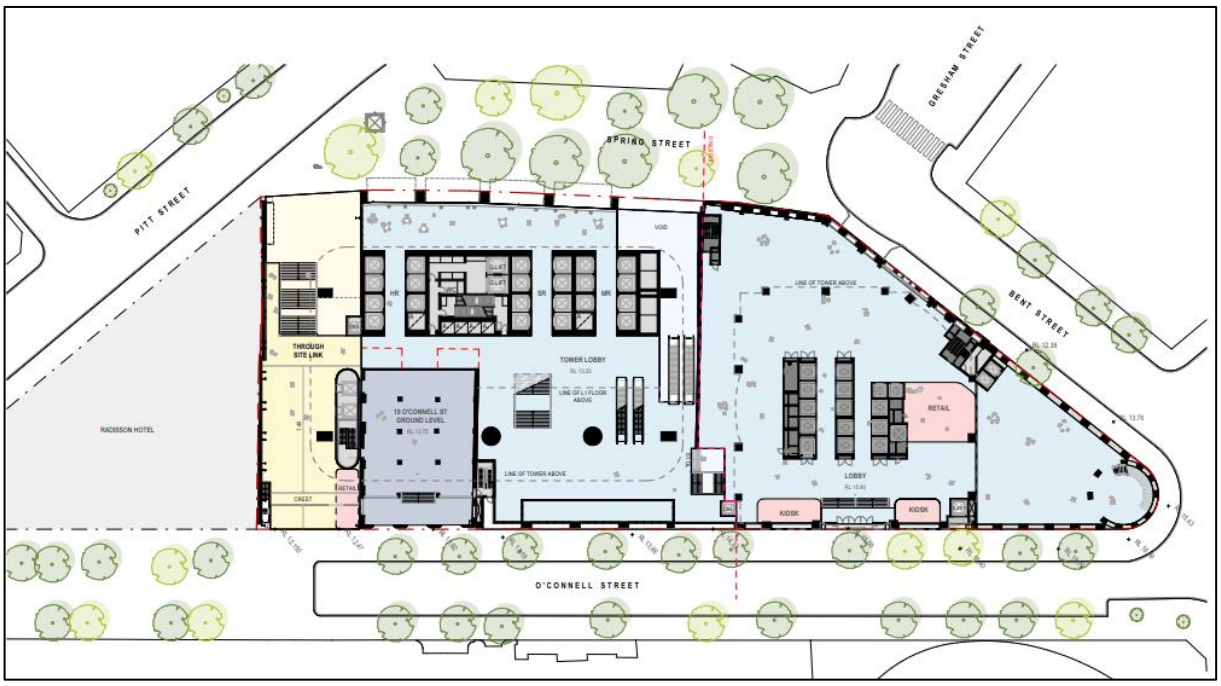


Figure 11 Proposed Scheme

4.2 Proposed development

The reimaging of the Precinct will comprise an integrated mixed-use commercial development that retains the existing 1 O'Connell Street commercial building, protects existing heritage, introduces a highly permeable and activated ground plane with enhanced public realm edges, creates opportunities for diverse cultural uses, and delivers premium grade commercial floor space in a new office tower. The two buildings proposed within the Precinct are presented in Figure 12.

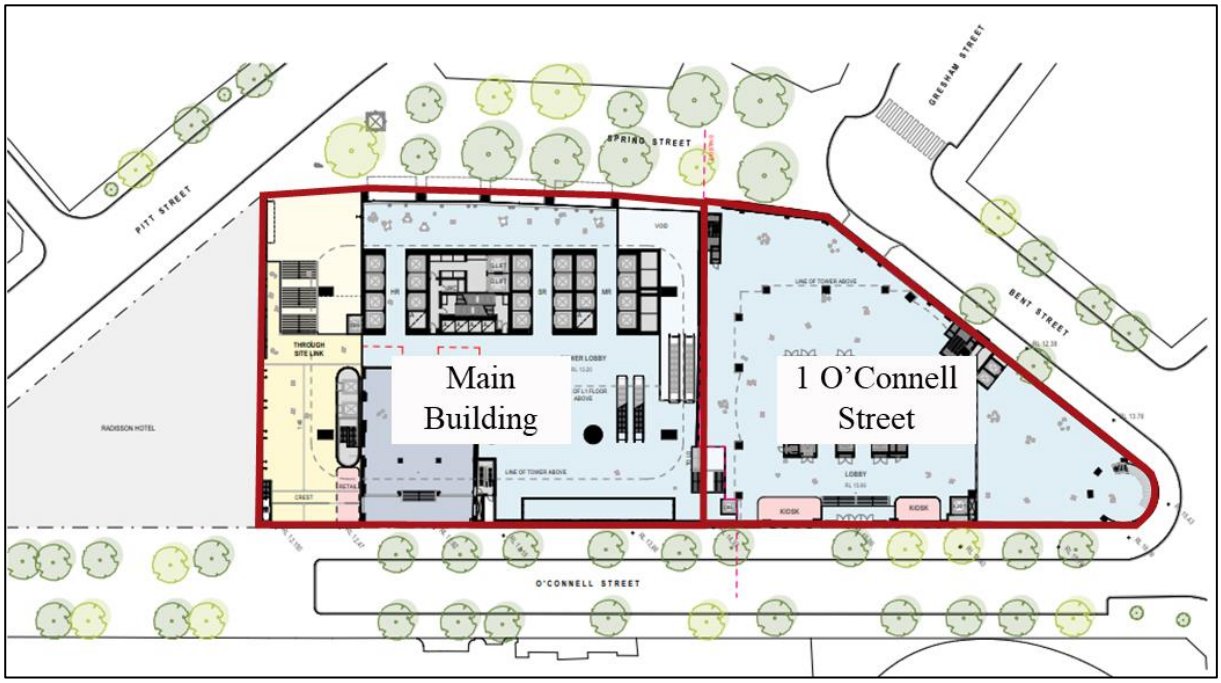


Figure 12 Proposed buildings within the Precinct

The existing yields of the lots within the Precinct and the proposed yields presented in the reference design are summarised in Table 6.

Table 6 Existing and proposed land uses and yields (Source: *240205 Area Schedule – Reference Design*)

Lot	Land use	GFA (m^2)	
		Existing	Proposed
1 O'Connell Street	Commercial	42,753	43,684
Main building	Commercial	33,745	108,263*
	Retail	-	3,594
	Total	**33,745**	**111,857**
Total		**76,498**	**155,541**
Net change		**79,043**	

*Total above ground GFA

The heritage listed 19 O'Connell Street building is proposed to be retained, as well as the existing 1 O'Connell Street commercial building, including the heritage listed facades of 1 O'Connell Street. The yield of 1 O'Connell Street is expected to increase slightly but land uses are expected to be similar to existing yields.

4.3 Walking

The Precinct would provide multiple pedestrian accesses on O'Connell Street, Bent Street and Spring Street. The main access points are shown in Figure 13 and Figure 14 and include:

- Access to the ground floor lobby and wintergarden on via O'Connell Street.
- Access to the tower lobby via O'Connell Street and Spring Street.
- Access to the food court via Bent Street and Spring Street.

A through site link would also be provided on the south-western end of the Precinct and would connect Spring Street and O'Connell Street.

An assessment of existing and future pedestrian movement patterns and the changes proposed in the public domain vision has been undertaken separately in the *O'Connell Precinct Pedestrian Planning* report (Arup, 2022).

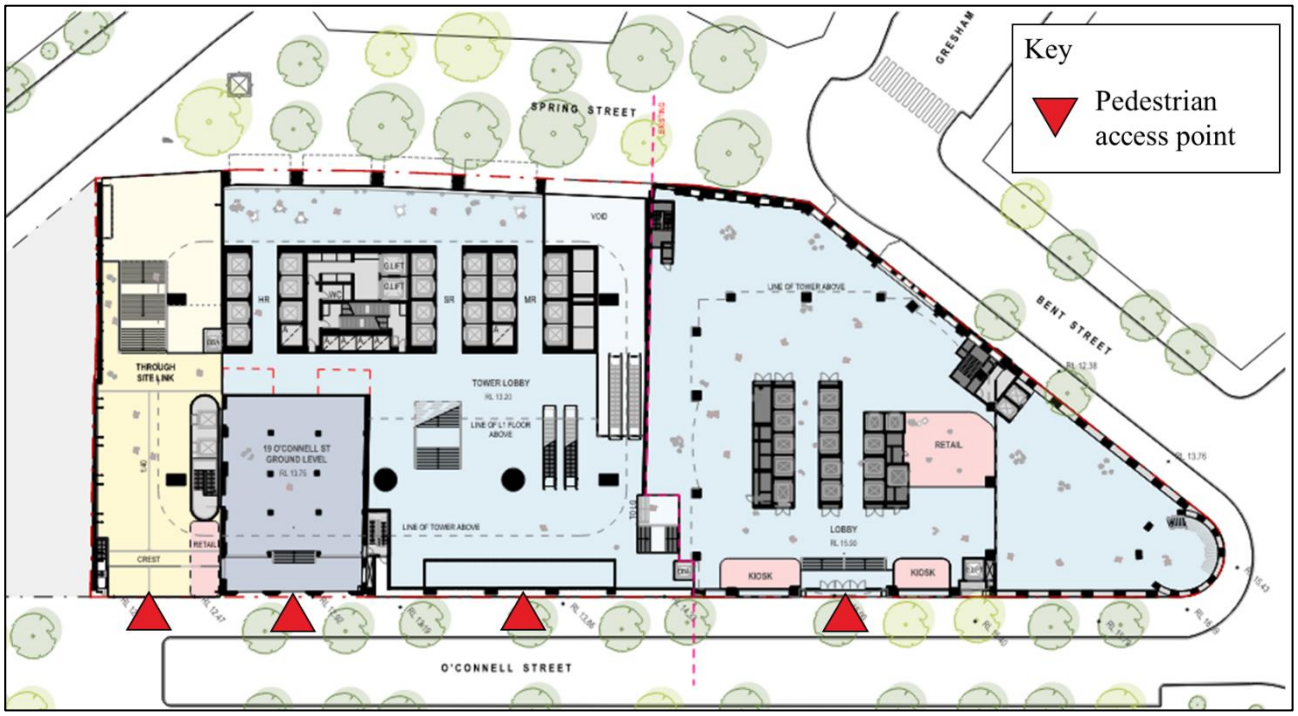


Figure 13 Pedestrian access points – Upper Ground

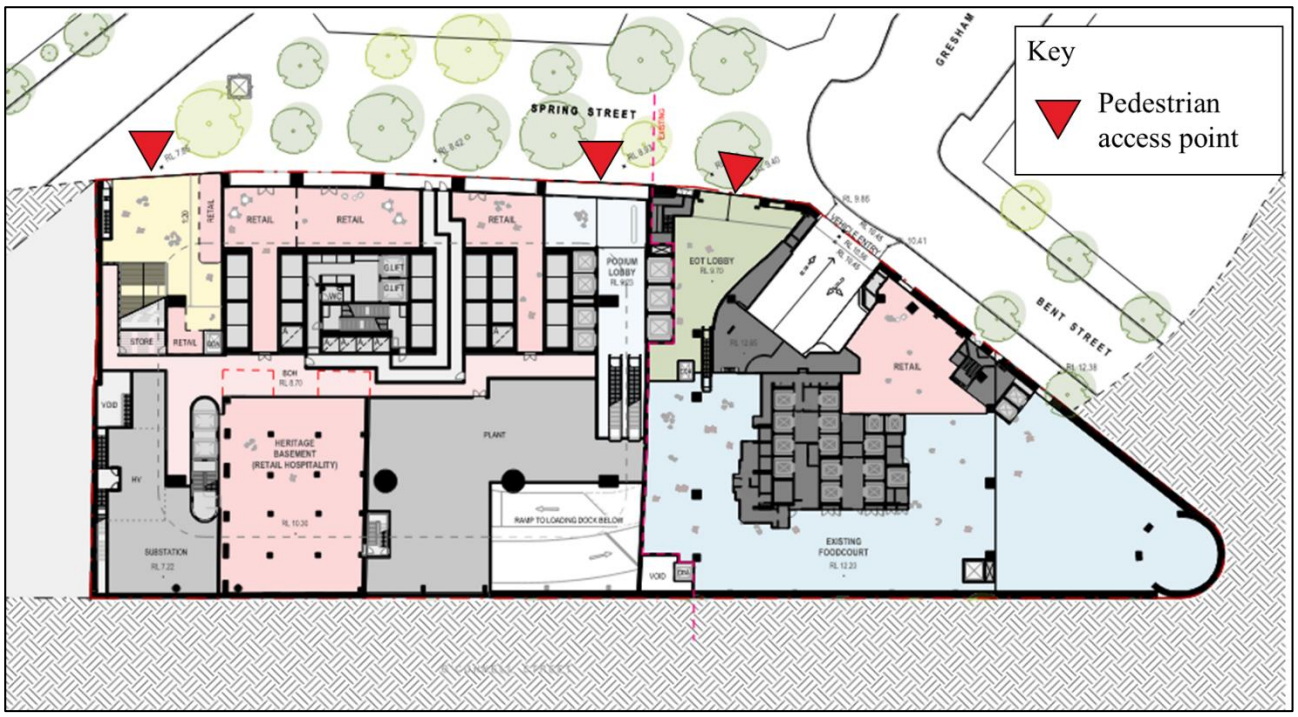


Figure 14 Pedestrian access points – Lower Ground

4.4 Cycling

Section 3 of the Sydney DCP 2012 requires bicycle parking and end of trip (EoT) facilities to be provided at the Precinct. The DCP rates and minimum number of employee and visitor bicycle parking are summarised in Table 7.

Table 7 Sydney DCP bicycle parking provision

Land use	GFA (m^2)	Rate		Minimum provision		Total
		Employees	Visitors	Employees	Visitors	
Commercial (office premises or business premises)	151,947	1 per 150m^2	1 per 400m^2	1,013	380	**1,393**
Retail (shop, restaurant or café)	3,594	1 per 250m^2	2 plus 1 per 100m^2 over 100m^2	15	37	**52**
Total				**1,028**	**417**	**1,445**

The minimum requirements relating to the EoT facilities associated with the employee cycle parking are summarised in Table 8.

Table 8 Sydney DCP EoT facilities provision

Land use	Minimum employee bicycle parking spaces	Rate		Minimum provision	
		Locker	Shower and change cubicle	Locker	Shower and change cubicle
Non-residential use	1,445	1 per bicycle parking space	2 for up to 20 bicycle parking spaces 2 additional for each additional 20 bicycle parking spaces	**1,445**	**74**

The reference design proposes bicycle parking located in the Basement Mezzanine and Basement Level 2. Lockers and shower and change cubicles would be provided on Podium Level 2 and 3. As shown in Figure 15 to Figure 17, access to the bicycle parking would be via lifts from the EoT lobby on Spring Street or Lower Ground lobby to the Basement Mezzanine and Basement 2 levels. As shown in Figure 18 and Figure 19, EoT facilities would be accessible via lift access from the Lower Ground lobby. Throughout the construction phase a temporary cycle parking facility will be provided on Basement Level 1, to serve 1OC.

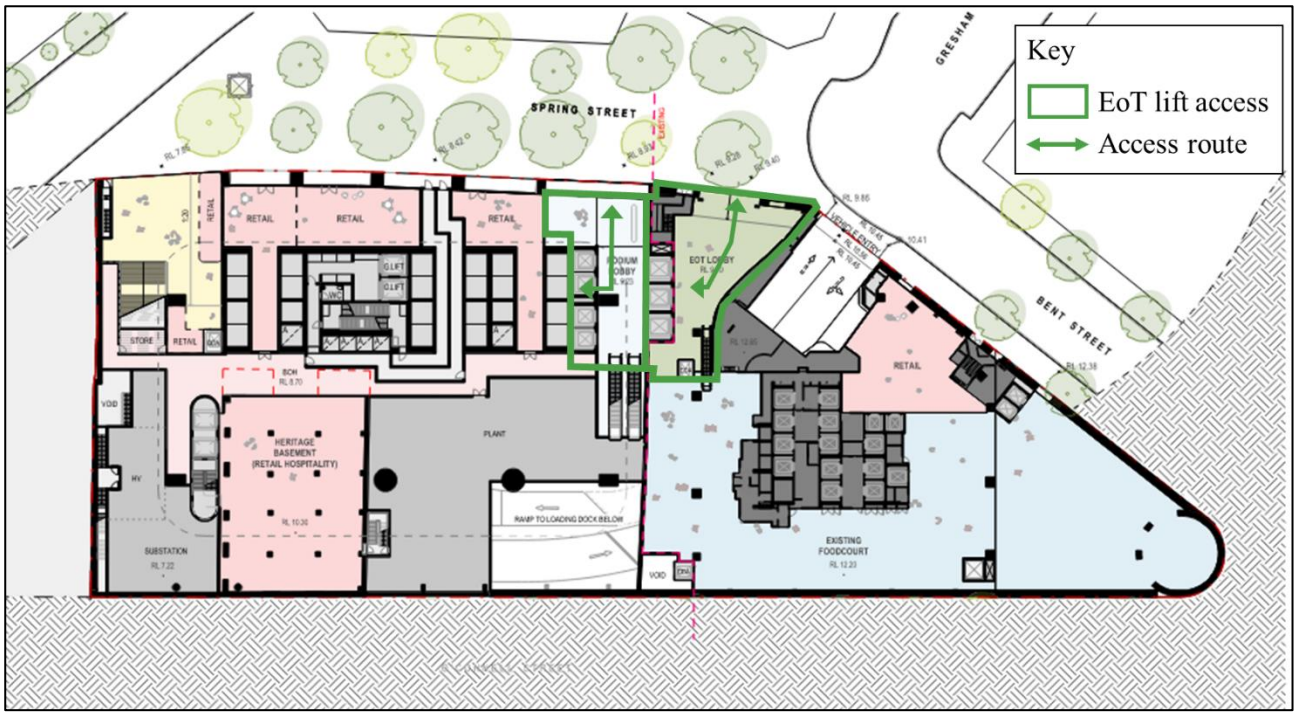


Figure 15 EoT access point and lifts – Lower Ground

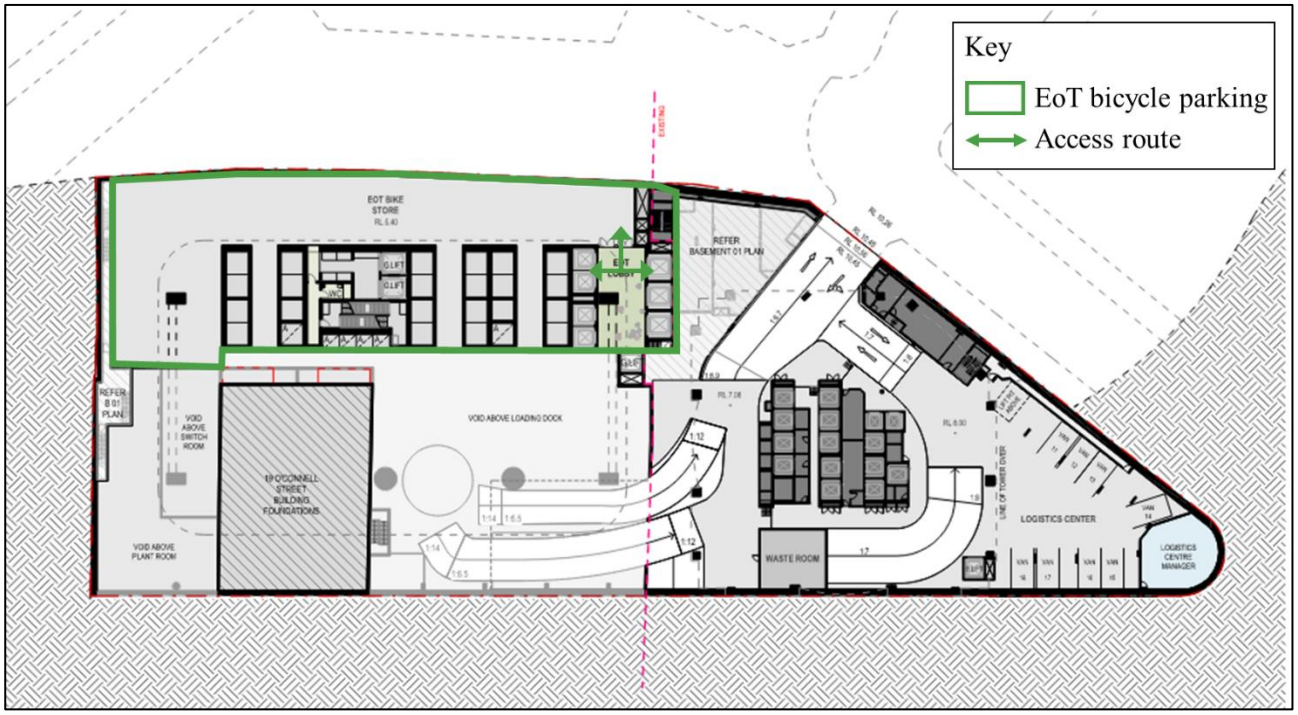


Figure 16 EoT bicycle parking – Basement Mezzanine

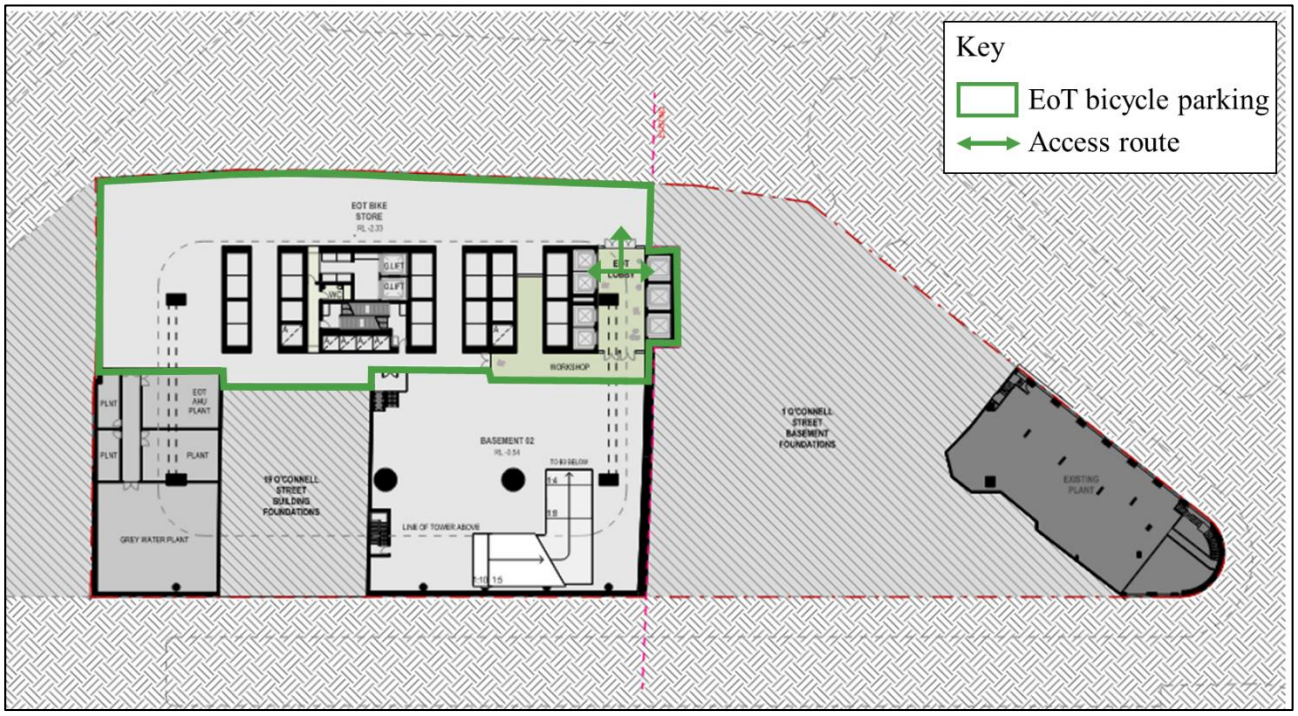


Figure 17 EoT bicycle parking – Basement 2

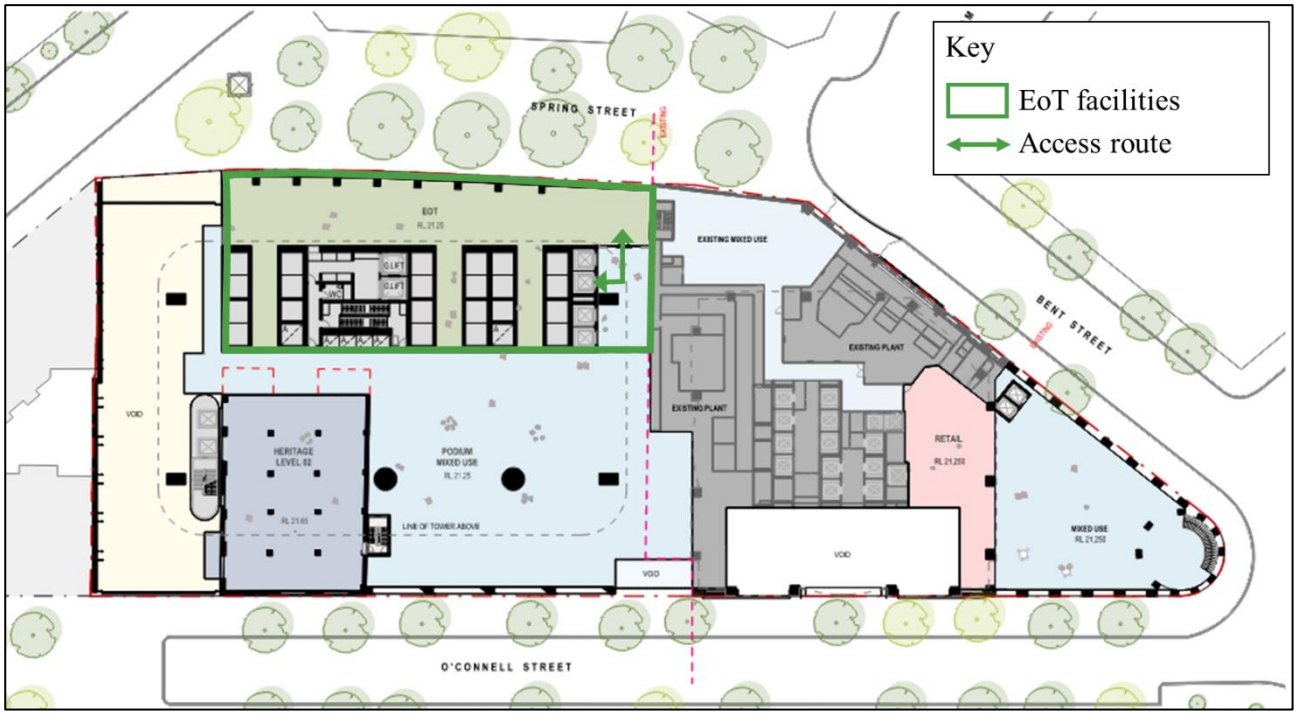


Figure 18 EoT facilities – Podium Level 2

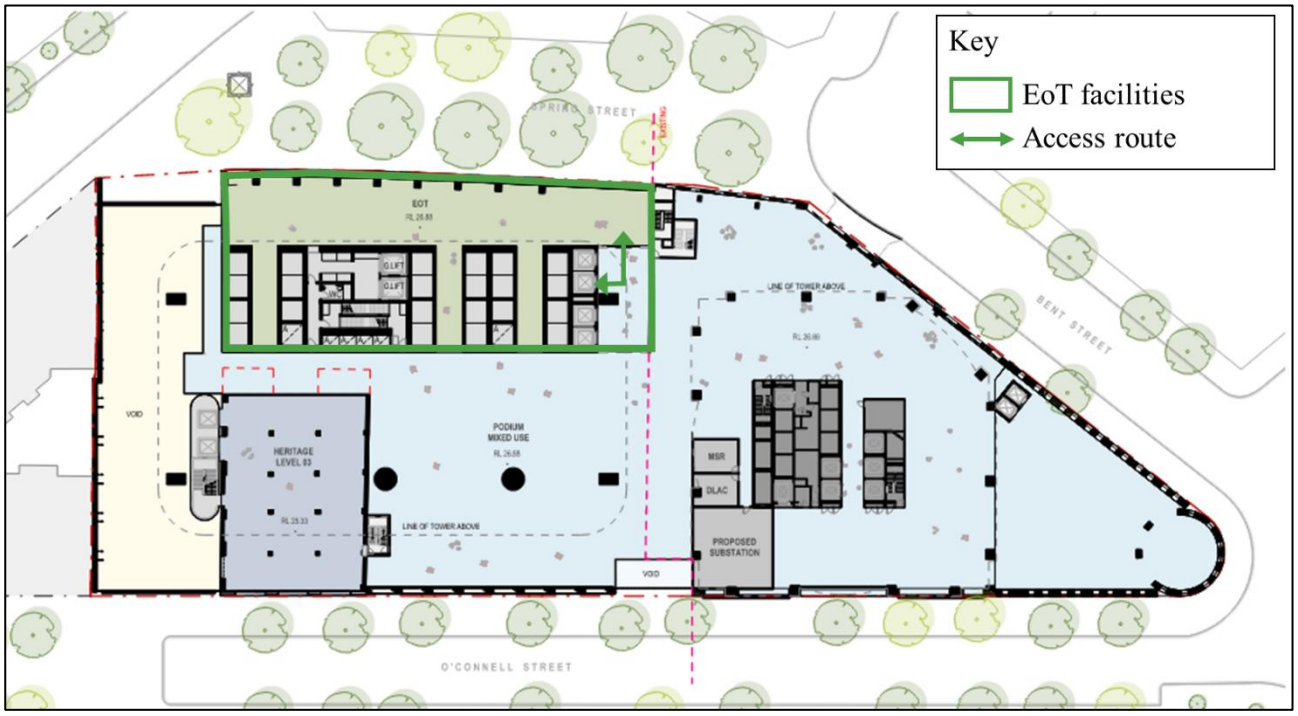


Figure 19 EoT facilities – Podium Level 3

4.5 Private vehicle

4.5.1 Private vehicle parking

Under Council's planning controls, the Precinct is located on land in accessibility Category D and the floor space ratio of the Precinct is greater than 3.5:1. Therefore, Part 7 of the Sydney LEP 2012 stipulates the following maximum car parking provision for office/business premises and retail premises:

$$M = \frac{(G * A)}{50 * T}$$

where:

- ***M** is the maximum number of car parking spaces.*
- ***G** is the gross floor area of all office/business premises or retail premises in the building in square metres.*
- ***A** is the site area in square metres.*
- ***T** is the total gross floor area of all buildings on the site in square metres.*

The maximum car parking provision for the Precinct is summarised in Table 9.

Table 9 Maximum car parking provision

Land use	GFA (m^2)	Maximum parking provision
Commercial	151,947	132
Retail	3,594	4
	Total	**136**

The reference design proposes car parking spaces to be provided on Basement 2 and Basement 3 and aims to reduce the parking provision when compared to the existing parking provision. The number of car parking spaces would be confirmed in subsequent detailed design ensuring compliance with the DCP requirements.

4.5.2 Car share

Section 3 of the Sydney DCP 2012 requires car share parking spaces to be provided in addition to the maximum number of car parking spaces permitted in the Sydney LEP 2012. For land in accessibility Category D, the Sydney DCP 2012 requires a minimum of 1 space per 30 car spaces provided to be made available for car share scheme vehicles.

4.5.3 Motorcycle parking

Schedule 7 of the Sydney DCP 2012 requires 1 motorcycle parking space to be provided for every 12 car parking spaces.

4.5.4 Accessible parking

Schedule 7 of the Sydney DCP 2012 requires one space for every 20 car parking spaces to be allocated as accessible visitor parking.

4.5.5 Access to parking

Vehicles would utilise the existing 1 O'Connell Street driveway to access parking on Basement 2 and Basement 3. Vehicle access to the basement levels is shown in Figure 20 to Figure 22.

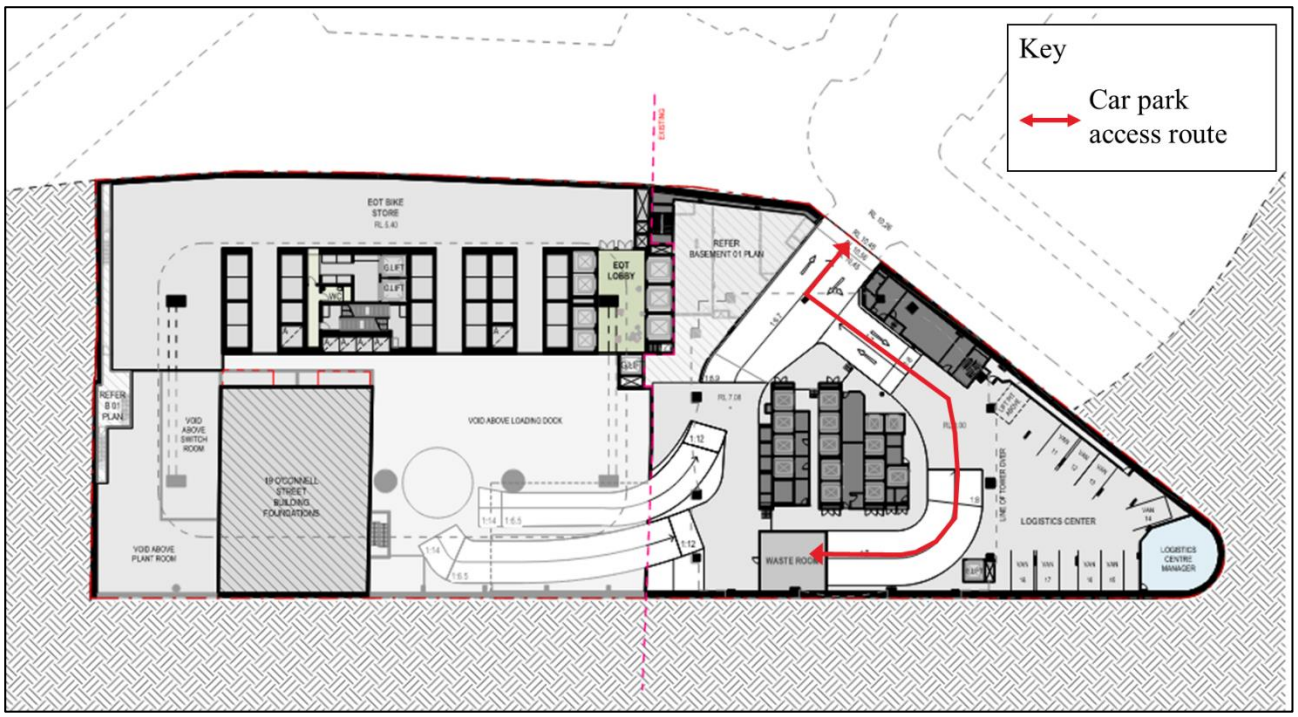


Figure 20 Car park access - Basement Mezzanine

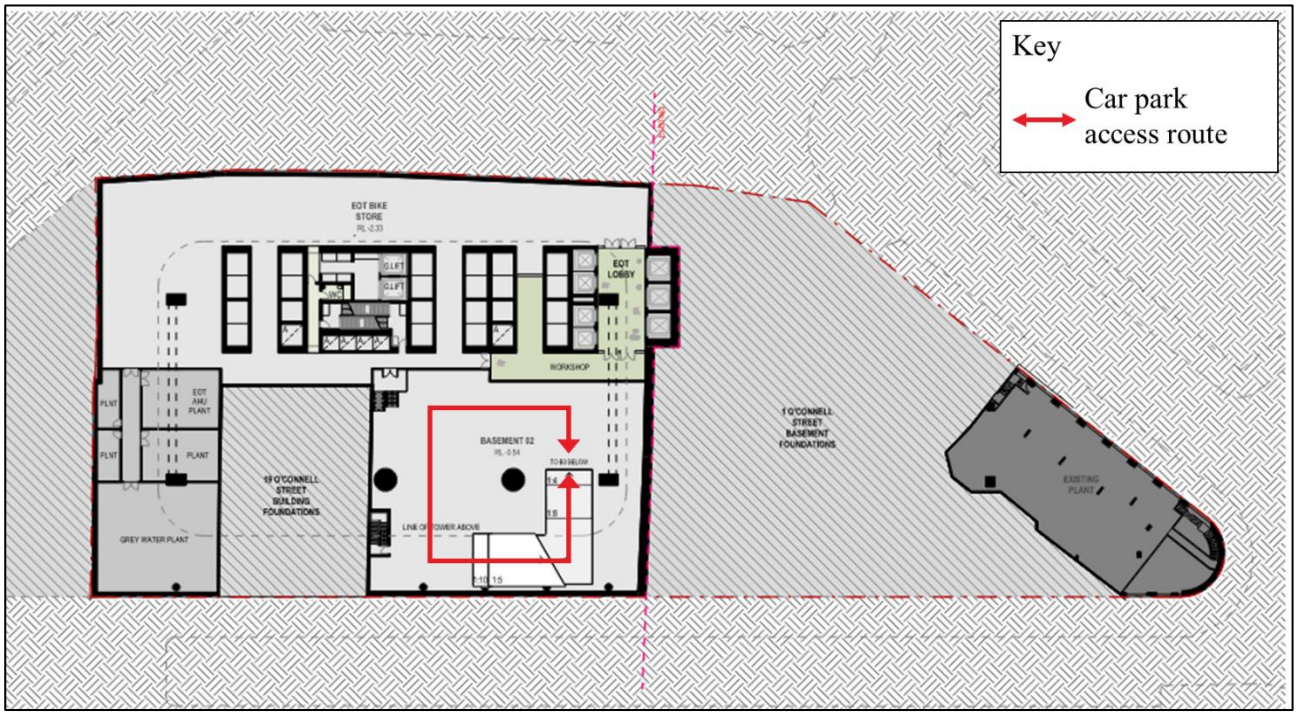


Figure 21 Car park access - Basement 2

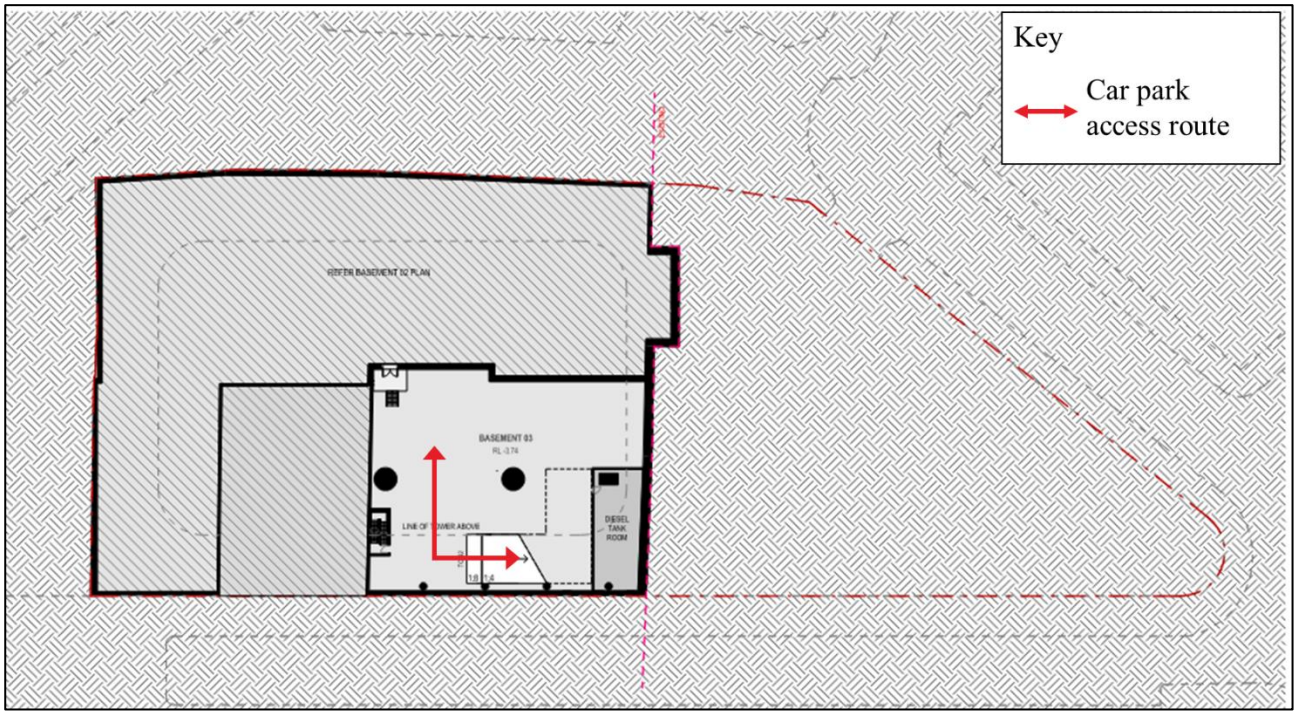


Figure 22 Car park access - Basement 3

4.6 Loading and Servicing

The reference design proposes a loading dock (shown in Figure 23) to accommodate the loading and servicing activities for the Precinct. Schedule 7 of the Sydney DCP 2012 outlines requirements for the loading dock that will serve the Precinct. The rates and minimum loading bay requirements are summarised in Table 10.

Table 10 Minimum service vehicle parking provision

Land use	GFA (m^2)	Rate	Minimum provision
Commercial (office premises or business premises)	151,947	1 space per 3,300m^2 GFA for the first 50,000m^2, plus 1 space per 6,600m^2 for additional floor area over 50,000m^2 and under 100,000m^2, plus 1 space per 13,200m^2 for additional floor area over 100,000m^2	**28**
Retail (shop, restaurant or café)	3,594	1 space per 350m^2 GFA up to 2,000m^2, plus 1 space per 800m^2 GFA thereafter	**8**
Total			**36**

However, Section 7.8.1 (3) of Schedule 7 also notes the following:

(3) The total requirement identified in (1) above may be reduced for developments with GFAs in excess of 50,000sqm where it can be demonstrated to the satisfaction of the consent authority that:

(a) the proposed uses are complementary in terms of servicing demand; and

(b) at least one space per tenancy for business owners is provided.

As the total GFA proposed is in excess of 50,000m^2, a freight and servicing strategy is planned for the Precinct which seeks to reduce the overall number of loading bays required. As part of future planning stages, a Delivery and Servicing Plan would be produced that justifies how the proposed loading arrangements would accommodate the proposed freight and servicing demand relating to the Precinct.

The main loading dock will be within footprint of the Main Building and accessed by a new set of ramps that connect to the 1OC structure. The maximum clear height for vehicles entering this dock will be 3.4m due to limitations imposed by the existing structure within 1OC.

In addition, the reference design includes provision for a logistics centre on Basement 1 (shown in Figure 24). The aim of this logistics centre is to remove freight and servicing traffic from O'Connell Street to help unlock the public domain aspirations for this street. This logistics centre would be available for servicing vehicles that would have previously serviced neighbouring buildings via O'Connell Street.

The logistics centre would operate for courier vehicles only (such as vans) due to existing height clearances relating to the 1OC access ramp (2.5m clear height). Larger vehicles (such as small rigid vehicles) would be directed to use the main loading dock. An integrated loading dock management system would be used to coordinate this arrangement.

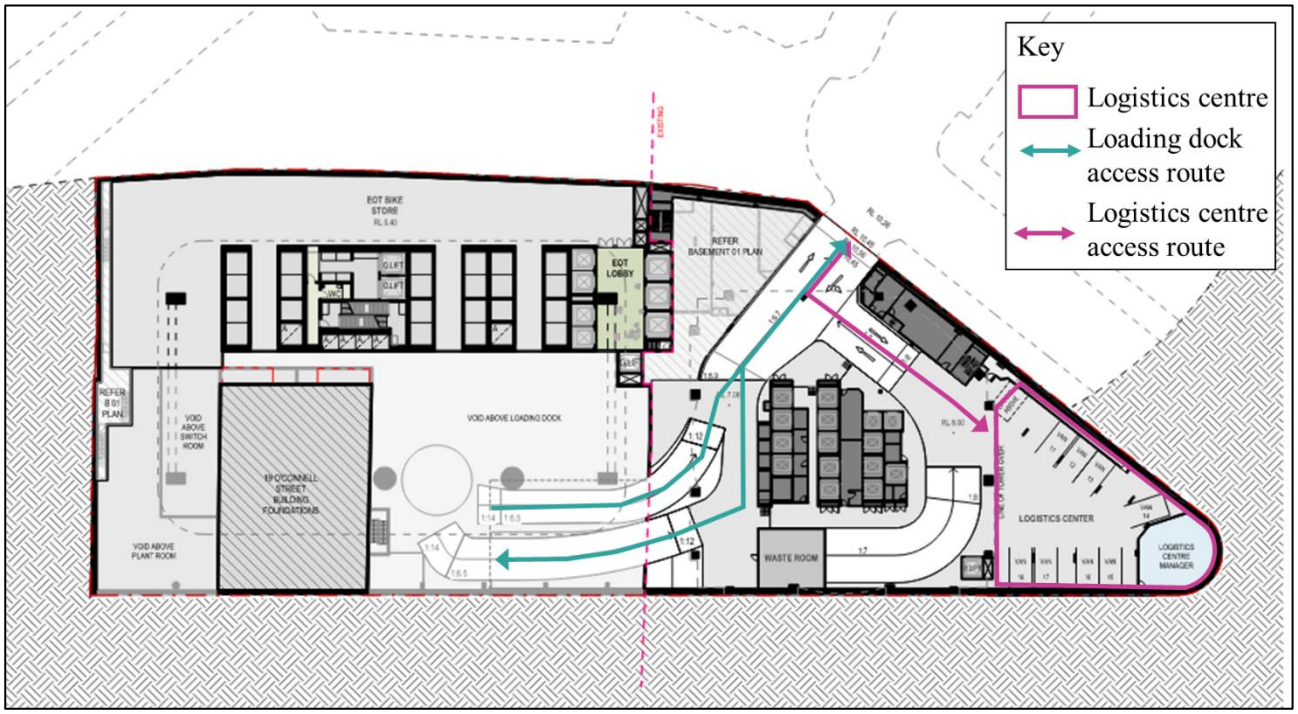


Figure 23 Basement Mezzanine – access to loading dock and logistics centre

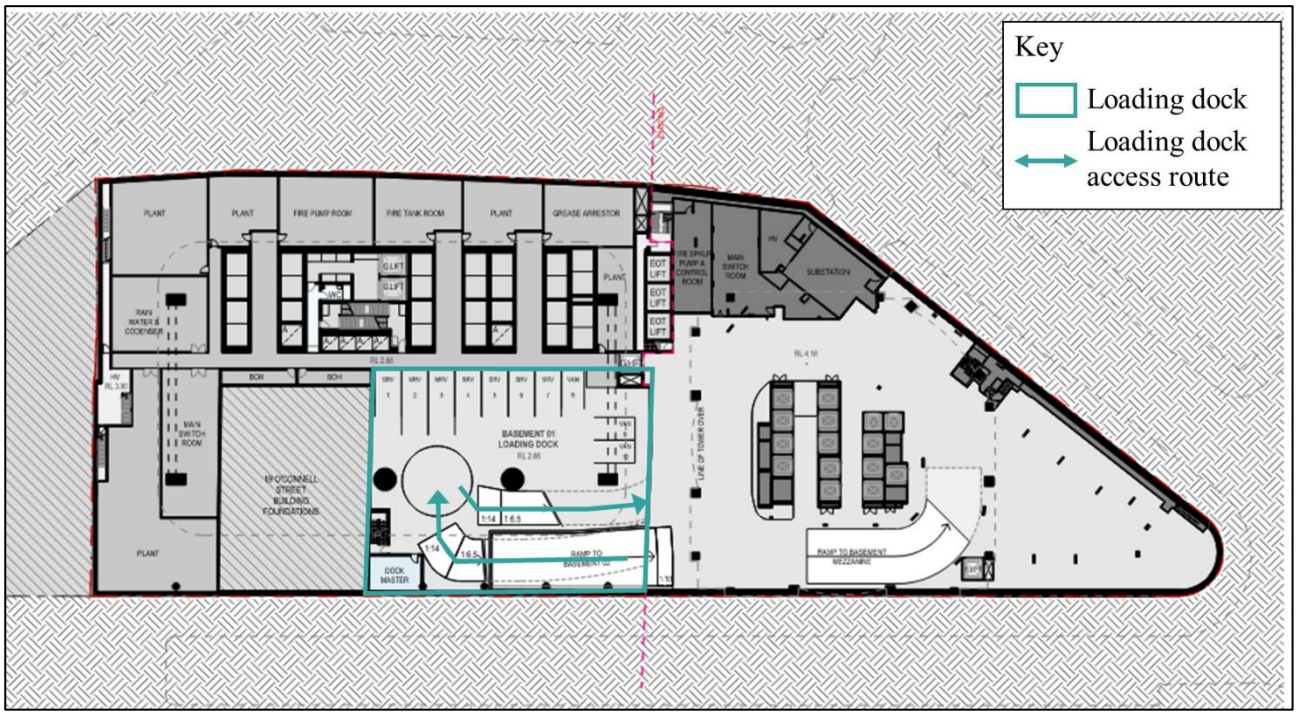


Figure 24 Basement 1 – access to main loading dock

5. Transport assessment

5.1 Trip generation

5.1.1 Person trip generation

A person trip generation exercise was undertaken for the Precinct using TfNSW guidance. Commercial person trip generation rates were adopted from the TfNSW *Technical Direction TDT 2013/04a* (TfNSW, 2013) based on surveys undertaken in 2013. Given the quantum of retail uses it has been assumed all trips relating to this use are linked trips associated with the commercial use. Therefore, to avoid double counting, retail trips have not been considered in the calculations. The assumed person trip generation rates are shown in Table 11.

Table 11 Assumed person trip generation rates

Land use	AM peak hour person trip generation rate	PM peak hour person trip generation rate	AM directional split		Assumptions and sources
			In	Out	
Commercial	1.85 per 100m^2 GFA	1.55 per 100m^2 GFA	90%	10%	*RMS TDT 2013/04a*, average of Sydney office block surveys in major centres within 10 km of Sydney CBD.

As the Precinct currently contains various lots and land uses, the net change in person trips has been calculated assuming existing and future uses will have similar trip generation rates. The resulting person trips using the yields in Section 4.2 are shown in Table 12.

Table 12 Person trip generation

Lot		Land use	GFA (m^2)	AM peak hour person trips			PM peak hour person trips		
				In	Out	Total	In[2]	Out	Total
1 O'Connell Street	Existing	Commercial	42,753	712	79	**791**	66	597	**663**
	Proposed	Commercial	43,684	727	81	**808**	68	609	**677**
Main building	Existing	Commercial	33,745	562	62	**624**	52	471	**523**
	Proposed	Commercial	108,263	1,803	200	**2,003**	168	1,510	**1,678**
Total existing			76,498	1,274	141	**1,415**	118	1,068	**1,186**
Total proposed (excluding retail)			151,947	2,530	281	**2,811**	236	2,119	**2,355**
Net change (excluding retail)			**75,449**	**1,256**	**140**	**1,396**	**118**	**1,051**	**1,169**

The Precinct is expected to generate an additional 1,396 person trips during the AM peak hour and 1,169 person trips during the PM peak hour. This is due to the additional commercial floor space proposed as part of the Precinct.

[2] PM peak hour directional split assumed to be the inverse of the AM directional split.

5.1.2 Vehicle trip generation

Vehicle trip generation of the Precinct is expected to be heavily influenced by the parking provided on the various basement levels. As discussed in 4.5, the Precinct is proposing a low provision that would limit private vehicle use and encourage access via public transport and walking and cycling. Furthermore, travel demand management (TDM) measures are also proposed to be implemented to reduce private vehicle use (discussed further in Section 6). Accordingly, vehicle trip generation has been adopted from similar assessments of low-car precincts in Sydney.

Commercial vehicle trips were split into employee parking trips and commercial trips undertaken using rideshare or taxi services. The vehicle trip generation rate of employees parking in the Precinct is expected to be correlated to the number of car parking spaces. The *Barangaroo Modified Concept Plan Transport Report* (MWT, 2008) noted a peak hour vehicle generation rate of 0.26 trips per parking space based on surveys undertaken for car parks at CBD commercial developments. Therefore, this vehicle trip generation rate has been adopted for employee parking trips. For the purposes of the Planning Proposal, 95 car parking spaces have been assessed as the as the existing case (as per Section 3.5) and 50 car parking spaces have been assessed for the O'Connell Precinct.

Commercial trips undertaken using rideshare and taxi were estimated using 2016 JTW data for the Sydney Inner City area. As discussed in Section 3.1, approximately 1% of all trips to work were undertaken using rideshare or taxi.

It is assumed that the retail component of the Precinct would not generate any independent vehicle trips as no parking provision is proposed for this use.

The assumed vehicle trip generation rates are shown in Table 13 and the resulting vehicle trips using the yields in Section 4.2 are shown in Table 14.

Table 13 Assumed vehicle trip generation rates

<table>
<tr><th rowspan="2">Land use</th><th rowspan="2">AM peak hour vehicle trip generation rate</th><th rowspan="2">PM peak hour vehicle trip generation rate</th><th colspan="2">AM directional split</th><th rowspan="2">Assumptions and sources</th></tr>
<tr><th>In</th><th>Out</th></tr>
<tr><td>Commercial (employee parking)</td><td colspan="2">0.26 per parking space</td><td rowspan="2">90%</td><td rowspan="2">10%</td><td>Barangaroo – Modified Concept Plan Transport Report surveys of office in King Street Wharf</td></tr>
<tr><td>Commercial (rideshare / taxi)</td><td colspan="2">1% of person trips</td><td>Journey to Work 2016 (SA2 Sydney – Haymarket – The Rocks taxi mode share</td></tr>
</table>

Table 14 Vehicle trip generation

Land use		Parking spaces / person trips		AM peak hour vehicle trips			PM peak hour vehicle trips		
		AM peak hour	PM peak hour	In	Out	Total	In[3]	Out	Total
Existing	Commercial (employee parking)	95		22	3	**25**	3	22	**25**
	Commercial (rideshare / taxi)	1,415	1,186	13	1	**14**	1	11	**12**
Proposed	Commercial (employee parking)	50		12	1	**13**	1	12	**13**
	Commercial (rideshare / taxi)	2,811	2,355	25	3	**28**	2	22	**24**
Total existing				35	4	**39**	4	33	**37**
Total proposed				37	4	**41**	3	34	**37**
Net change				2	0	**2**	-1	1	**0**

The Precinct is expected to generate an additional 2 vehicle trips during the AM peak hour and 0 vehicle trips during the PM peak hour. These trips are not expected to have a significant impact on the surrounding road network.

5.2 Mode share

The mode shares for workers travelling to work in the Sydney Inner City is outlined Section 3.1. This mode share has been updated to reflect the private vehicle and rideshare/taxi trips presented in Section 4.5.

The resulting expected mode share of the Precinct and trips by mode are shown in Table 15. It is assumed that private vehicle trips would be redistributed to public transport and walking and cycling.

[3] PM peak hour directional split assumed to be the inverse of the AM directional split.

Table 15 Expected mode share

Mode of travel	Existing site			The Precinct			Net change	
	Expected mode share	Trips		Expected mode share	Trips		Trips	
		AM peak hour	PM peak hour		AM peak hour	PM peak hour	AM peak hour	PM peak hour
Train	58%	834	695	59%	1,665	1,398	831	703
Bus	22%	316	264	23%	652	546	336	282
Ferry	3%	42	36	3%	84	71	42	35
Light rail	1%	14	12	1%	28	24	14	12
Rideshare and taxi	2%	14	12	1%	28	24	14	12
Car, as driver or passenger	2%	25	25	1%	13	13	-12	-12
Motorcycle	1%	14	12	1%	28	24	14	12
Bicycle	4%	57	47	4%	115	94	58	47
Walked only	7%	99	83	7%	200	166	101	83
Total	**100%**	**1,415**	**1,186**	**100%**	**2,813**	**2,360**	**1,398**	**1,174**

5.3 Impacts on the road network

As discussed in Section 4.5, the Precinct is proposing minimal parking which would limit private vehicle use and encourage access via public transport and walking and cycling. The expected number of private vehicle, rideshare and taxi trips is 41 trips in the AM peak hour and 37 trips in the PM peak hour. These trips represent a minor net increase of up to 2 vehicles in the AM peak hour and 0 vehicles in PM peak hour when compared to the existing site.

Operation of the Precinct would be underpinned by a TDM strategy, which would aim to manage the impacts of private vehicle use and encourage walking, cycling, public transport and car sharing. TDM is covered in more detail in Section 6.

5.4 Impacts on public transport

In the AM peak hour, the Precinct is expected to generate approximately 831 additional train/metro trips, 336 additional bus trips and 56 additional ferry/light rail trips. In the PM peak hour, the Precinct is expected to generate approximately 703 additional train/metro trips, 282 additional bus trips and 47 additional ferry/light rail trips.

As discussed in Section 3.2, the Precinct is located in proximity to train, bus, light rail and ferry services. The Precinct is well-placed to take advantage of future Sydney Metro City and Southwest services at Martin Place Station and Sydney Metro West services at Hunter Street Station. Sydney Metro forecasts estimate that Sydney Metro City and Southwest services are expected to increase the capacity of train services across Sydney from 120 an hour today to up to 200 services an hour beyond 2024. Therefore, the impact of the Precinct on train/metro capacity is expected to be satisfactorily accommodated by this significant increase in services.

Similarly, the large number of services available within walking distance of the Precinct and the commitments outlined in the *Greater Sydney Services and Infrastructure Plan* to increase capacity and reduce journey times across the city-serving public transport network. Suggest the impact of the Precinct on bus, ferry and light rail capacity is expected to be negligible.

5.5 Impacts on walking and cycling

The proposed development is expected to generate an uplift in walk only trips and cycling trips, noting that walking will be involved in trips by any mode. Up to an additional 58 cycling trips are estimated to be generated in the AM peak hour. Surrounding cycling routes are considered to provide sufficient capacity along with the end of trip facilities within the proposed development.

An assessment of existing and future walking patterns and the changes proposed in the public domain vision has been undertaken separately in the *O'Connell Precinct Pedestrian Planning* report. In particular, the report identifies that the provision of the through site link connecting Spring Street and O'Connell Street would provide a convenient path between the future Hunter Street station and the northwest as well as additional capacity on already congested footpaths. Furthermore, the provision of the through site link as well as the proposed upgrades in the *City North Public Domain Plan* (specifically the pedestrianisation of Spring and O'Connell Street South) would provide additional walking space and greater comfort and safety for pedestrians around the O'Connell Precinct.

6. Travel demand management

TDM is the application of a focused, data led strategy that seeks to change demand on transport networks by redistributing journeys to other modes, times, routes, or by removing the journey altogether. To manage the impacts of private vehicle use and encourage walking, cycling, public transport and car sharing, operation of the Precinct would be underpinned by a TDM strategy. A TDM strategy includes policies and interventions that would ensure that the demand for transport generated by the development is managed in a sustainable manner and that the need for travel and length of trips, particularly by car, is minimised.

TDM interventions can be grouped as part of four key principles. These principles and examples of relevant interventions which could be investigated for the Precinct are shown in Table 16.

Table 16 TDM principles and intervention examples

Principle	Definition	Intervention example
Retime	Retiming trips to non-peak hours	Work with tenants to provide flexible working and stagger office hours outside of peak periods
Remode	Using another mode of transport	• Provide high-quality cycling parking and EoT facilities to encourage cycling uptake. • Provide a seamless pedestrian integration with the future Hunter Street Station to reduce barriers to public transport use
Reduce	Reducing the number of trips	• Work with tenants to provide flexible working from home arrangements to minimise travel • If private vehicle access is required, encourage carpooling to minimise the overall number of vehicles
Reroute	Using alternative roads to access the Precinct	Provide a Travel Access Guide which outlines nearby kiss and ride locations for drop-offs and pick-ups

Interventions and their implementation would be developed further in subsequent planning and outlined in a Green Travel Plan (GTP). A GTP is a package of measures put in place to encourage more sustainable travel and describes ways in which the use of sustainable transport may be encouraged. The objectives of a GTP broadly are:

- To reduce the level of single occupancy car borne trips associated with commuting.
- To facilitate the sustainable and safe travel of visitors to the Precinct.
- To reduce site traffic congestion and associated pollution in order to enhance, improve and make safe journeys of minority/sustainable transport mode users.
- To work in partnership with neighbouring organisations/developments, local authorities, retailers and other relevant bodies in achieving the maximum mode shift away from the private car.
- To continually develop, implement, monitor, evaluate and review the progress of the travel plan strategy.
- To facilitate all residents' access to key facilities such as retail, leisure, health and education.

7. Summary

This Traffic and Transport Report has been prepared by Arup and supports a Request for a Planning Proposal to amend the Sydney LEP 2012 and amendments proposed to the Sydney DCP 2012 in relation to the O'Connell Precinct. The key findings of this assessment include:

- To support future pedestrian demand patterns, the Precinct aims to produce a highly integrated and permeable ground plane that unlocks the value of the road space and creates active frontages that provide significant public benefit. A range of public realm changes have been considered to further improve amenity and reallocate road space to align with the future foot traffic expected. This change would see a transition from car dominated streets to spacious public spaces that support vibrancy, interaction and collaboration.
- The Precinct would provide multiple pedestrian accesses on O'Connell Street, Bent Street and Spring Street. A through site link would also be provided on the south-western end of the Precinct and would connect Spring Street and O'Connell Street.
- The City of Sydney DCP and LEP require bicycle parking, end of trip facilities and minimum requirements for car share, motorcycle parking and accessible parking. The proposed development will comply with all of these DCP requirements.
- The reference design proposes a loading dock to accommodate the loading and servicing activities for the Precinct. A revised freight and servicing strategy is planned for the Precinct which seeks to reduce the overall number of loading bays required. As part of future planning stages, a Delivery and Servicing Plan will be produced that justifies how the proposed loading dock would accommodate the proposed freight and servicing demand relating to the Precinct.
- The reference design includes provision for a logistics centre on Basement 1. This logistics centre would aim to accommodate all freight and servicing traffic that currently uses O'Connell Street to unlock the public domain vision for this street. This facility is limited to accommodating vans due to height clearance limitations within 1 O'Connell Street.
- The Precinct is expected to generate an additional 1,396 person trips during the AM peak hour and 1,169 person trips during the PM peak hour. This is due to the additional commercial floor space proposed as part of the Precinct.
- The expected increase in the number of private vehicle, rideshare and taxi trips is up to 2 vehicles in the peak hours. These trips are not expected to have a significant impact on the surrounding road network.
- Although the Precinct is expected to generate a high volume of trips by public transport. Given the large number of train, bus and ferry services in walking distance of the site and the increased capacity that will be provided by Sydney Metro projects in the future. The public transport network is deemed to have sufficient capacity to accommodate this demand.
- Operation of the Precinct would be underpinned by a TDM strategy, which would aim to manage the impacts of private vehicle use and encourage walking, cycling, public transport and car sharing.