

Macquarie

## Metro Martin Place

### Planning Proposal - Transport, Traffic, Pedestrian and Parking Report

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03 | 26 October 2017

This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

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# ARUP

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# 1 Introduction

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This report supports a Planning Proposal submitted to the Department of Planning and Environment, pursuant to Section 55 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and the Department of Planning and Environment's *A Guide to Preparing Planning Proposals* (August 2016).

Macquarie Corporate Holdings Pty Limited (Macquarie) is seeking to create a World Class Transport and Employment Precinct at Martin Place, Sydney.

The key objective of the Planning Proposal is to facilitate the delivery of two predominantly commercial office Over Station Development (OSD) towers located above and intricately linked to the future Martin Place Metro Station (part of the NSW Government's Sydney Metro project).

Specifically, the Planning Proposal seeks to amend the *Sydney Local Environment Plan 2012* (Sydney LEP) through enabling greater building height and floor space and thereby realising the Precinct's unique opportunities.

In this particular report, the transport, traffic, pedestrian and parking features of the Planning Proposal and the associated impacts are set out. The report includes background information, the existing traffic conditions, a description of the proposal and an assessment of the traffic impact of the precinct.

## 1.1 Background

The New South Wales (NSW) Government is implementing Sydney's Rail Future (Transport for NSW, 2012), a plan to transform and modernise Sydney's rail network so that it can grow with the city's population and meet the needs of customers in the future.

Sydney Metro is a new standalone rail network identified in Sydney's Rail Future. The Sydney Metro network consists of Sydney Metro Northwest (Stage 1) and Sydney Metro City & Southwest (Stage 2).

Stage 2 of the Metro entails the construction and operation of a new Metro rail line from Chatswood, under Sydney Harbour through Sydney's CBD to Sydenham and eventually on to Bankstown through the conversion of the existing line to Metro standards. The project also involves the delivery of seven (7) new Metro stations, including Martin Place.

This step-change piece of public transport infrastructure once complete will have the capacity for 30 trains an hour (one every two minutes) through the CBD in each direction catering for an extra 100,000 customers per hour across the Sydney CBD rail lines.

On 9 January 2017, the Minister for Planning approved the Stage 2 (Chatswood to Sydenham) Metro application lodged by Transport for NSW (TfNSW) as a Critical State Significant Infrastructure (CSSI) project (reference SSI 15\_7400).

TfNSW is also making provision for future Over Station Development (OSD) on the land it has acquired for the Stage 2 Sydney Metro project, including land acquired for the purposes of delivering Martin Place Station. The OSD development is subject to separate applications to be lodged under the relevant provisions of the EP&A Act.

An Unsolicited Proposal submission has been lodged by Macquarie to the NSW Government for the delivery of a single fully integrated station/OSD solution for the new Sydney Metro Martin Place Station Precinct.

## 1.2 Site Description

The Sydney Metro Martin Place Station Precinct (the Precinct) project relates to the following properties (refer to Figure 1):

- 50 Martin Place, 9 – 19 Elizabeth Street, 8 – 12 Castlereagh Street, 7 Elizabeth Street, 5 Elizabeth Street, and 55 Hunter Street (North Site);
- 39 – 49 Martin Place (South Site); and
- Martin Place (that part bound by Elizabeth Street and Castlereagh Street).

The Planning Proposal relates only to the North and South Site (refer to Figure 2). Each site will accommodate one OSD tower above the future Sydney Metro Martin Place Station (representing the northern and southern entries/gateways to the Sydney Metro station). The land acquired for the Sydney Metro Martin Place Station is the same as for the Macquarie proposal, except that the Macquarie proposal includes the two properties north of Martin Place owned by Macquarie, namely 50 Martin Place and 9-19 Elizabeth Street.

Both the North and South Sites are regular in shape and have area of approximately 6,022m<sup>2</sup> and 1,897m<sup>2</sup> respectively, totalling 7,919m<sup>2</sup>.

Located close to the centre of the Sydney CBD, the Precinct comprises of the entire City block bounded by Hunter Street, Elizabeth Street, Martin Place and Castlereagh Street; that portion of Martin Place located between Elizabeth Street and Castlereagh Street and the northern most property in the block bounded by Martin Place, Elizabeth Street, Castlereagh Street, and King Street. Together it constitutes an above ground site area of approximately 9,400 square metres, with a dimension from north to south of approximately 210 metres and from east to west of approximately 45 metres. It incorporates a significant portion of one of Sydney's most revered public spaces – Martin Place.

Martin Place is recognised as one of Central Sydney's great public, civic and commemorative spaces, as well as being a historically valued commercial and finance location of Sydney's CBD. Martin Place and a large number of buildings on, or in close proximity to, Martin Place are identified as heritage items, either as items of National, State or Local significance. Number 50 Martin Place, which forms part of the Macquarie North Site, is one of these major heritage items.

There has been a number of redevelopment and refurbishment proposals in recent years along Martin Place to improve existing assets and recapture their premium commercial status (e.g. 5 Martin Place, 50 Martin Place, 20 Martin Place,

upgrades of the MLC Centre, and 60 Martin Place). The City of Sydney Council has also identified a need to reinvigorate Martin Place and upgrade the public spaces.

The surrounding locality is characterised by a variety of built forms and architectural styles, with many of the buildings, including those of relatively recent years, not complying with the current planning controls with respect to building heights, setbacks and street wall heights.

In terms of land use the area is characterised by a predominance of office uses, with some ground floor retailing, cafés, or restaurants and hotels (most notably the Westin and the Wentworth) to support its primary business centre function.

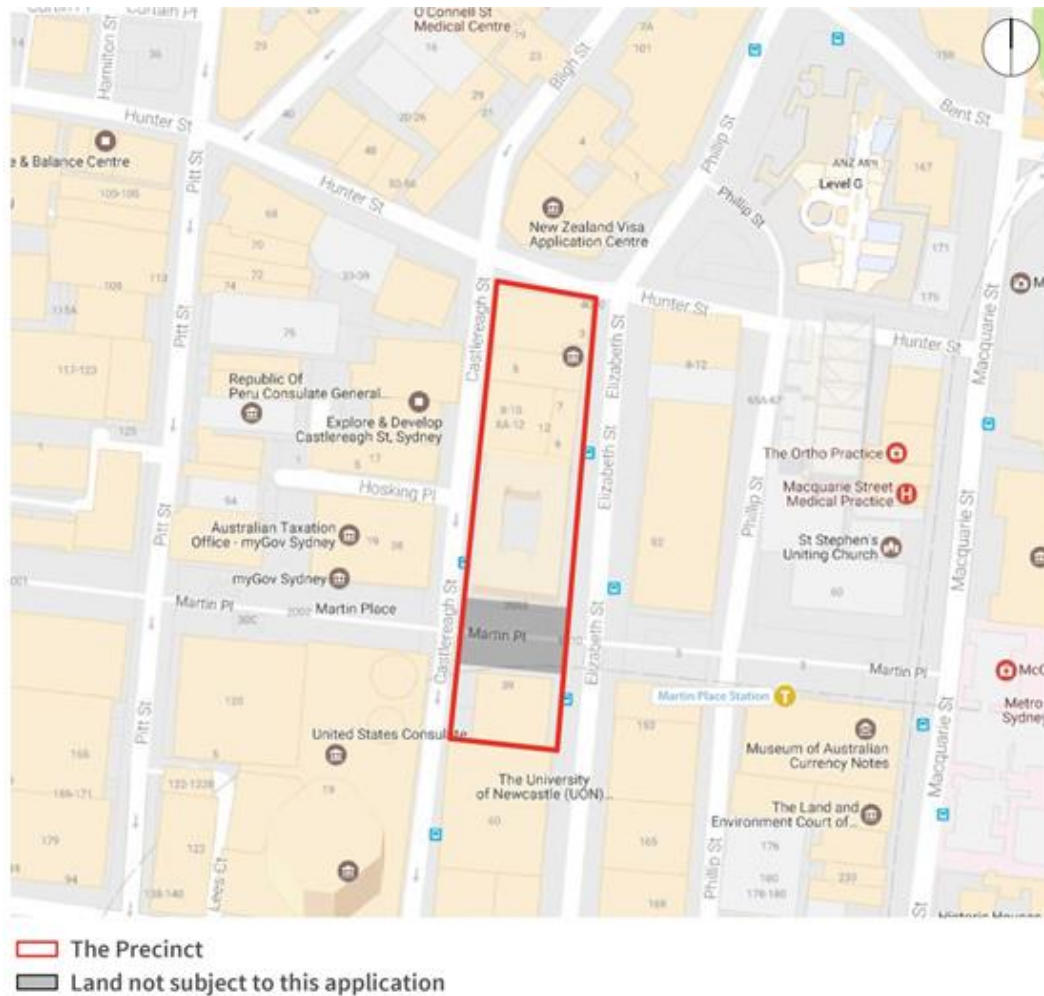


Figure 1 Location map of Precinct

Source: Google maps and JBA



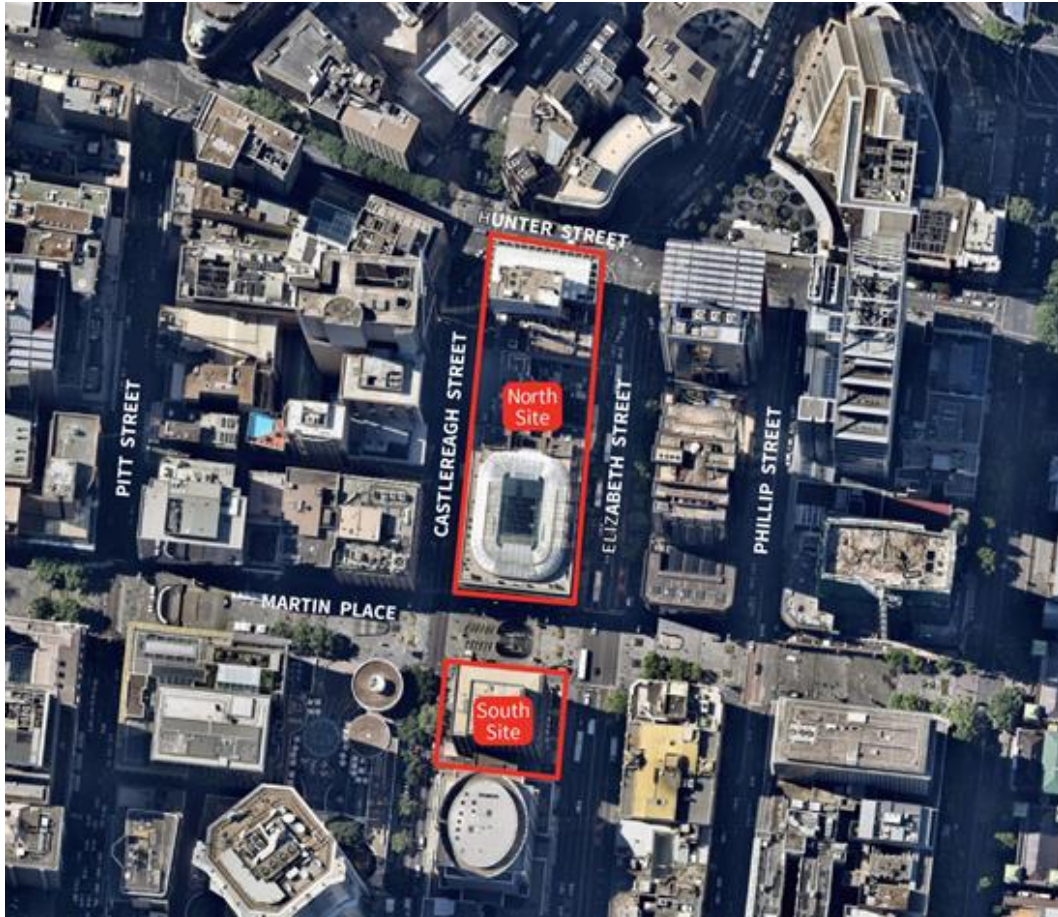


Figure 2 Aerial photo of the North and South Site

Source: Nearmap and JBA

### 1.3 Overview of the Proposal

The proposal by Macquarie is unique and innovative in aligning the aspirations for public transport, civic amenity and the long-term sustainability of Sydney as a financial centre. It is achieved through a development designed to maximise the opportunities for an improved Metro Station, integrate the existing and new public transport infrastructure, coordinate this infrastructure with modern commercial office towers and world class retailing, and rejuvenate and complement some of Sydney's most revered public spaces whilst substantially improving station access and connectivity.

In order to realise this vision, the Planning Proposal seeks to amend the Sydney LEP through enabling greater building height (South Site only) and floor space (North and South Sites). In short, the existing planning controls that apply to the land are out-dated and do not align with the strategic planning framework, nor the aspirations and vision of the NSW Government, City of Sydney Council and Macquarie.

The proposed amendments will establish new maximum allowable Floor Space Ratios (FSRs) for both the North and South Sites, and which are limited generally to employment generating land uses. This increased capacity will greatly

strengthen Sydney's historical financial district. The proposed height amendment to the South Site relates to increasing the maximum height of buildings for part of the site from 55m and up to the Hyde Park North Sun Access Plane.

A more detailed and comprehensive description of the proposal is contained within the Planning Proposal prepared by JBA.

## 1.4 Planning Strategy Context

The Planning Proposal forms part of a comprehensive suite of applications and processes to co-ordinate and deliver a fully integrated station/OSD solution for the new Sydney Metro Martin Place Station Precinct.

As part of this co-ordinated approach, a Stage 1 State Significant Development (SSD) Development Application (DA) is being made pursuant to Section 83B of the EP&A Act. This Stage 1 SSD DA establishes the vision and planning and development framework for the precinct, and forms the basis for the consent authority to assess future detailed development applications (Stage 2 DAs).

The concept proposal for the South Site under this DA includes a tower envelope that complies with the building height and FSR controls under Sydney LEP (with this Planning Proposal facilitating an alternative and larger tower). Also submitted separately to this SSD DA is an application to modify the CSSI approval (in order to align with the Macquarie proposal).

For clarity, Figure 3 below is a diagrammatic representation of the suite of applications proposed by Macquarie, to show the relationship of the Planning Proposal (the subject of this report) to OSD Stage 1 SSD DA and the Martin Place Metro CSSI.



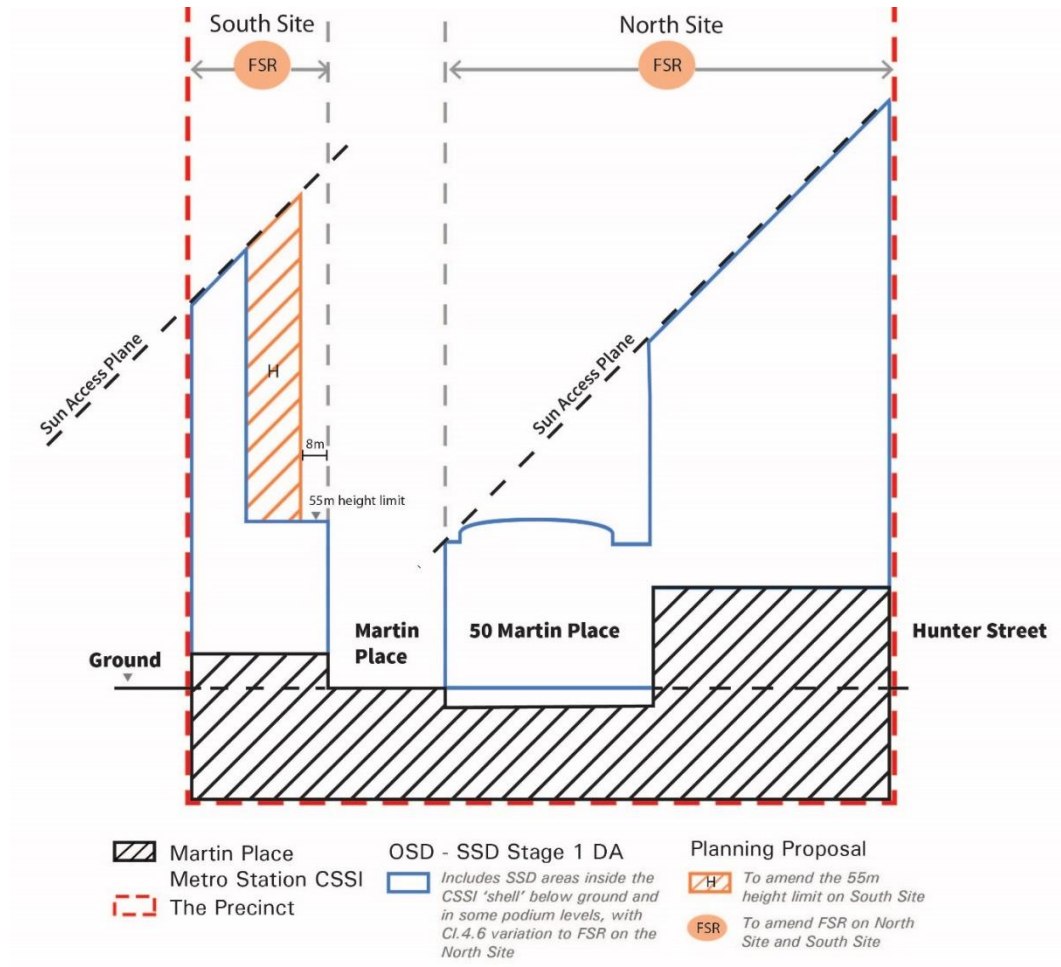


Figure 3 Relationship of planning applications

Source: JBA

## 2 Regulatory Context

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The following is a brief description of the transport planning provisions, goals and strategic planning objectives which are relevant to the Planning Proposal.

### 2.1 Sydney Local Environmental Plan 2012

The Sydney Local Environment Plan (LEP) 2012 applies to most of the City's local area and is made up of a written instrument and maps. It identifies the maximum number of on-site car parking spaces that can be provided for new developments based on their location and level of transport accessibility. The objective of the car parking rates is to minimise the amount of vehicular traffic generated because of the proposed development.

Clause 7.6 of Sydney LEP 2012 provides that the maximum number of car parking spaces for office and business premises.

No additional car parking spaces are proposed to be provided as part of the proposed development.

### 2.2 State Environmental Planning Policy (Infrastructure) 2007

The aim of this policy document is to facilitate the effective delivery of infrastructure across NSW. Clauses relevant to the development include:

#### **Clause 88B: Development near proposed metro stations**

This clause applies to land shown as CBD Metro Station Extent on a rail corridors map and land that is adjacent to that land. A consent authority must not grant consent to development on land to which this clause applies unless it has taken into consideration:

- whether the proposed development will adversely affect the development and operation of a proposed metro station, including by impeding access to, or egress from, the proposed metro station; and
- whether the proposed development will encourage the increased use of public transport.

The proposed development will not impede access to the proposed Sydney Metro Martin Place Station and will encourage increased use of public transport with the increased number of employees on site.

#### **Clause 104: Traffic generating development**

This clause sets out thresholds for scale of new or extended development, above which the consenting authority must:

- a) give written notice of the application to Roads and Maritime Services (RMS) within 7 days after the application is made, and

- b) take into consideration:
- (i) any submission that RMS provides in response to that notice within 21 days after the notice was given (unless, before the 21 days have passed, RMS advises that it will not be making a submission), and
  - (ii) the accessibility of the site concerned, including:
    - A. the efficiency of movement of people and freight to and from the site and the extent of multi-purpose trips, and
    - B. the potential to minimise the need for travel by car and to maximise movement of freight in containers or bulk freight by rail, and
  - (iii) any potential traffic safety, road congestion or parking implications of the development.

The scale of the proposed development is such that the consenting authority must follow the steps described above.

## 2.3 A Plan for Growing Sydney

A Plan for Growing Sydney (Department of Planning & Environment, 2014) presents a new framework for Sydney that will guide planning decisions over the next 20 years to accommodate growth. The planned growth will see an additional 700,000 jobs and 1.6 million residents added to Sydney by 2036.

The plan is driven by the vision of Sydney to be: ‘A strong global city, a great place to live’. To achieve this vision, the Government has set goals that Sydney will be:

- A competitive economy with world-class services and transport.
- A city of housing choice with homes that meet our needs and lifestyles.
- A great place to live with communities that are strong, healthy and well connected.
- A sustainable and resilient city that protects the natural environment and has a balanced approach to the use of land and resources.

The plan outlines a set of strategic directions to deliver the housing and workplaces required to meet growth whilst providing high levels of amenity and good accessibility to jobs and services, creating resilient communities and a highly liveable city.

## 2.4 Draft Central District Plan

The draft Central District Plan maps the 20-year vision for the Central District of Greater Sydney. The vision of the draft Plan includes enhancing the role of global Sydney, leveraging investment in transport infrastructure and enriching unique places and connections.

The proposed development is in line with this vision.

## 2.5 NSW Long Term Transport Master Plan 2012

The Long Term Transport Master Plan was released in December 2012. It is the key framework for improving and delivering better transport throughout NSW. The plan looks to grow and improve the CBD's transport networks and improve accessibility.

The Sydney Metro will significantly enhance the accessibility and connectivity in the CBD.

## 2.6 Sustainable Sydney 2030

The Vision for The City of Sydney is to be a green, global and connected city, leading the world in all three of these fields. To achieve these goals, the city is required to encourage active modes of transport and improve its public transport system.

## 2.7 Sydney's Bus Future

Sydney's Bus Future (Transport for NSW, 2013) provides the framework for improving and delivering more frequent and reliable bus services throughout Sydney. The core aim of the strategy is to provide an integrated bus network with seamless connections to other transport services.

The strategy also aims to tailor bus services to customer needs. In this vein, bus services will be focused into three key types, with associated priority and infrastructure investment:

- Rapid routes, which will use priority infrastructure, connect regionally throughout the city and have stops every 800m-1km
- Suburban routes, which will have stops every 400m and have mix of frequent 'turn up and go' and timetabled services
- Local routes, which will complete the network using local streets.

Employees of the proposed development will take advantage of these improved connections.

## 2.8 Sydney's Walking Future

Sydney's Walking Future (Transport for NSW, 2013) sets out a strategy to encourage people in Sydney to walk more through actions that make it a more convenient, better connected and safer mode of transport.

Key points to emerge from the strategy that are relevant to the proposed development include:

- NSW Government commitment to invest in new walking links that connect people to public transport.

- Prioritisation of investment in walking infrastructure to be prioritised within 2km of centres and public transport interchanges.
- Commitment to invest in walking facilities as part of the Transport Access Program, including improved circulation spaces around station precincts and safer walking links.

## 2.9 Sydney's Cycling Future

Sydney's Cycling Future (Transport for NSW, 2013) provides a framework for the way cycling is planned and prioritised in Sydney. It aims to grow the number of people cycling for transport by investing in safe, connected networks, making better use of existing infrastructure and fostering the formation of partnerships to develop cycling infrastructure. Key points to emerge from the strategy that are relevant to the proposed development include:

- A safe and connected bicycle network benefits the wider transport network by improving access to towns and centres, reducing congestion and increasing capacity on the public transport system.
- The promotion of safe separation of cyclists from motor vehicles and pedestrians where possible.
- Investment in bicycle infrastructure should be prioritised within 5km of public transport interchanges to provide improved connections.
- Promoting 'bike-and-ride' at major public transport interchanges including secure parking facilities integrated with public transport access.

The City of Sydney is moving towards a well-connected cycle network to improve accessibility for workers and visitors to the CBD. The development will encourage people to cycle by providing high quality end of trip facilities for employees and visitors.

## 2.10 Sydney's Light Rail Future

Sydney's Cycling Future (Transport for NSW, 2013) provides a framework for the way light rail is planned and prioritised in Sydney. The plan identifies four stages for the future of light rail, including the provision of the CBD and South East Light Rail.

This line will be an attractive option to employees and visitors of the development, with Wynyard being the nearest stop.

## 2.11 Relevant Policies and Guidelines

The following documents have been considered in the development of this report:

- Sydney Streets Design Code and Sydney Streets Technical Specification used to inform any modifications to the street network.

- Roads and Maritime Services (RMS) Guide to Traffic Generating Developments used to inform the traffic assessment undertaken for the project.
- EIS Guidelines – Road and Related Facilities used to inform the preparation of the transport strategy, in particular the assessment of transport impacts.
- NSW Planning Guidelines for Walking and Cycling and NSW Bicycle Guidelines. These documents have been used to inform the development of the walking and cycling measures proposed in this strategy.
- Guide to Traffic Management – Part 12: Traffic Impacts of Developments (AUSTROADS). This guide has been referenced for the appropriate methodology to be used for traffic impact assessment of the development.



## 3 Existing Transport Conditions

### 3.1 Existing Travel Patterns

Census Journey to Work data (2011) has been used to analyse the existing commuter travel behaviour in the area and characterise the public transport conditions in the vicinity of the precinct.

The Travel Zones (TZ) are very detailed in the CBD, allowing for high quality data in relation to travel patterns. The precinct is located in TZs 60 and 75 with two adjoining TZs (61 and 76) also chosen to give a wider representation of the area as presented in Figure 4.

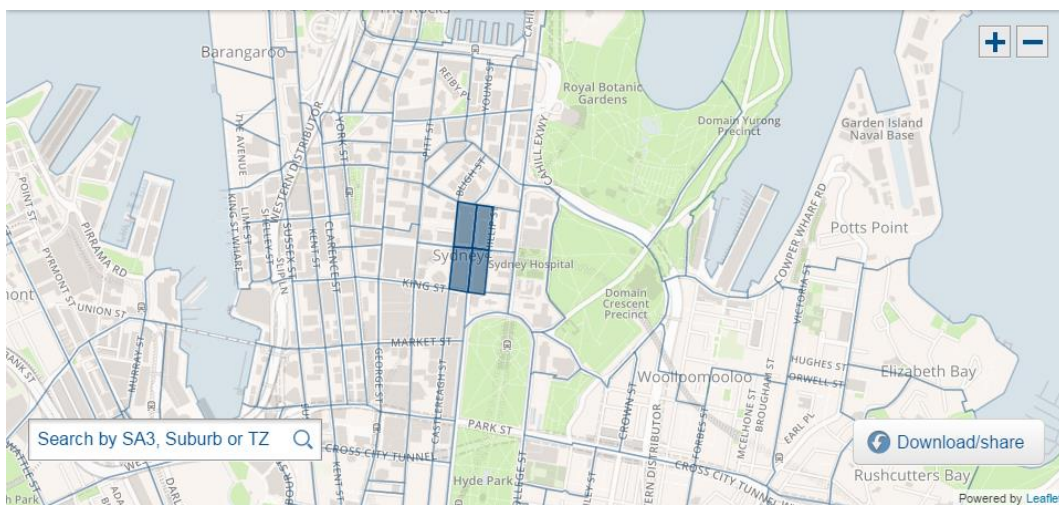


Figure 4 Travel Zones Selected in Journey to Work Visualizer

Approximately 8,500 employees are working within these four TZs (4,500 of which are employed within the Precinct). Their main mode of travel and journey origin summarised in Figure 5. Almost half of all commuters working in the area travel by train and a further 24% travelling by bus. Travel by private car accounts for 17% of all trips (14% as car driver and 3% as car passenger). This indicates that the vast majority of employees in the area are using public transport for their commute. It is noted that trips by bicycle are included under 'other mode' which accounts for 2% of commuting trips to the area.

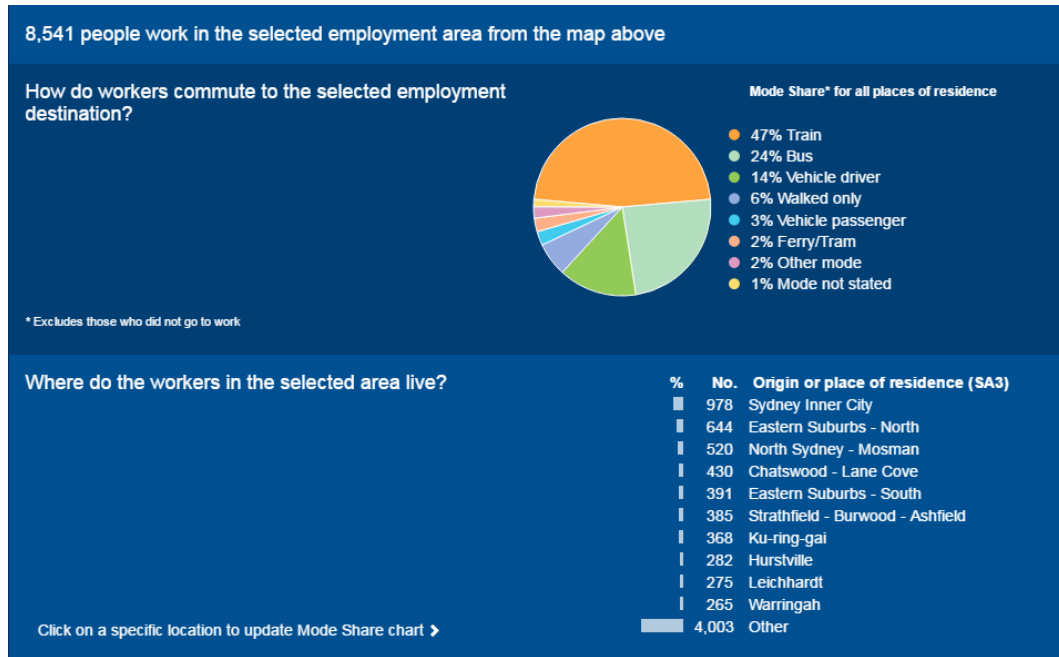


Figure 5 Mode Share and Origins

(Source: BTS Journey to Work Explorer)

The largest proportion of employees commute from Sydney Inner City, followed by Eastern Suburbs-North and North Sydney-Mosman areas.

## 3.2 Vehicular Access

The North Site has three trafficable street frontages, while the South Site has two. A brief description of these streets in the vicinity of the development is set out below:

### 1. Castlereagh Street - Hunter Street to King Street

Castlereagh Street is a one-way street southbound and consists of one bus lane and one traffic lane. On the both sides of the road, there are parking lanes which are mainly designated as loading bays or bus zones on weekdays, with on-street parking permitted at weekends.

The street forms a signalised junction with pedestrian crossings on all arms at its junction with Hunter Street and King Street while there is also a wide pedestrian crossing at the intersection with Martin Place.

There are four existing vehicular access points to the development from Castlereagh Street as shown in Figure 6.

### 2. Elizabeth Street - Hunter Street to King Street

Elizabeth Street is a two-way street and generally consists of one bus lane and one traffic lane in each direction. Northbound, north of Martin Place, there are three traffic lanes and no bus lanes.

On both sides of the road, there are parking lanes which are mainly designated as loading bays or bus zones on weekdays, with on-street parking permitted at

weekends (apart from the western side of the road, north of Martin Place which is mainly 'no stopping').

Elizabeth Street forms a signalised junction with pedestrian crossings on all arms at its junction with Hunter Street and King Street while there is also a wide pedestrian crossing at the intersection with Martin Place. There are no existing vehicle access points to either the North or South Site from Elizabeth Street.

### 3. Hunter Street – Castlereagh Street to Elizabeth Street

Hunter Street is a two-way road with two general traffic lanes in both directions. Adjacent to the development, there is a no-stopping zone during the day on weekdays with parking permitted at weekends and at night. The opposite side of the road is also a no-stopping zone.

Hunter Street forms a signalised junction with Elizabeth Street and Castlereagh Street, with pedestrians crossing facilities on all arms of both junctions. There are no existing vehicle access points to the North Site from Hunter Street.

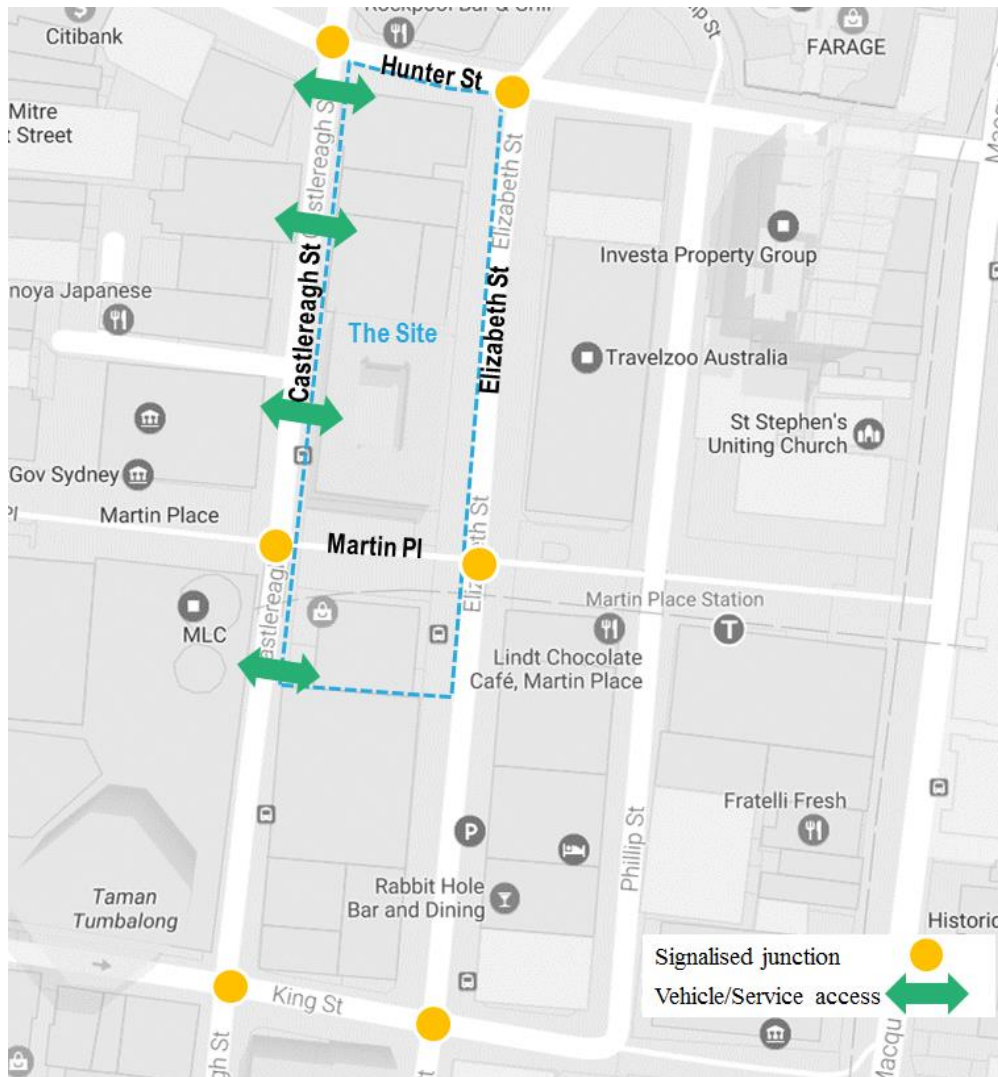


Figure 6 Existing vehicle access points

### 3.3 Traffic Volumes

The existing traffic volumes on the surrounding road network in the vicinity of the precinct have been extracted from the Sydney Metro (Chatswood to Sydenham) EIS and are presented in Table 1. The following commentary was made in the EIS in relation to traffic in the local area.

*“Elizabeth Street northbound experiences heavy traffic volumes during both peak periods. There is a strong movement from Macquarie Street (southbound) in the east to Castlereagh Street (southbound) via Hunter Street, which contributes to relatively heavy westbound traffic on Hunter Street.*

*Currently, the Macquarie Street / Bent Street / Eastern Distributor ramps intersection is extremely congested during the AM and PM peaks with the intersection performing above its theoretical capacity at level of service F. Long delays are caused by conflict between high volumes of traffic on the Eastern Distributor ramps (westbound) and Macquarie Street (southbound).*

*All other intersections near the Martin Place Station construction sites currently operate at level of service B or better. However, at the Elizabeth Street / Phillip Street / Hunter Street intersection, signal coordination along Elizabeth Street causes delays for conflicting right turn movements and vehicles on side-streets.<sup>1</sup>”*

Table 1 Martin Place Station existing traffic volumes

Road	Direction	AM peak hour (vehicles per hour)	PM peak hour (vehicles per hour)
Castlereagh St (between King St and Hunter St)	Southbound	380	510
Elizabeth Street (between King St and Hunter St)	Southbound	1,130	1,110
	Northbound	410	590
Hunter Street (between Castlereagh St and Elizabeth St)	Eastbound	190	190
	Westbound	790	630

(Source: Sydney Metro (Chatswood to Sydenham) EIS, Chapter 8)

### 3.4 On-site Parking

There are a number of small underground car parks (approximately 116 spaces) within the precinct which are accessible off Castlereagh Street, including:

- 39-49 Martin Place (68 spaces)
- 55 Hunter Street (44 spaces)
- 50 Martin Place (4 spaces)

<sup>1</sup> Sydney Metro (Chatswood to Sydenham) EIS, Chapter 8

### 3.5 On-street kerbside controls

The on-street kerbside parking controls along Castlereagh Street and Elizabeth Street in the vicinity of Martin Place Station are heavily focused on bus and loading zones. Hunter Street has parking controls that permit 4P parking after 6pm on weekdays all day on weekend days. Private vehicle parking in the vicinity of the precinct is heavily restricted and is generally only permitted overnight and on weekends. The weekday, daytime kerbside uses of these streets are shown in Figure 7.

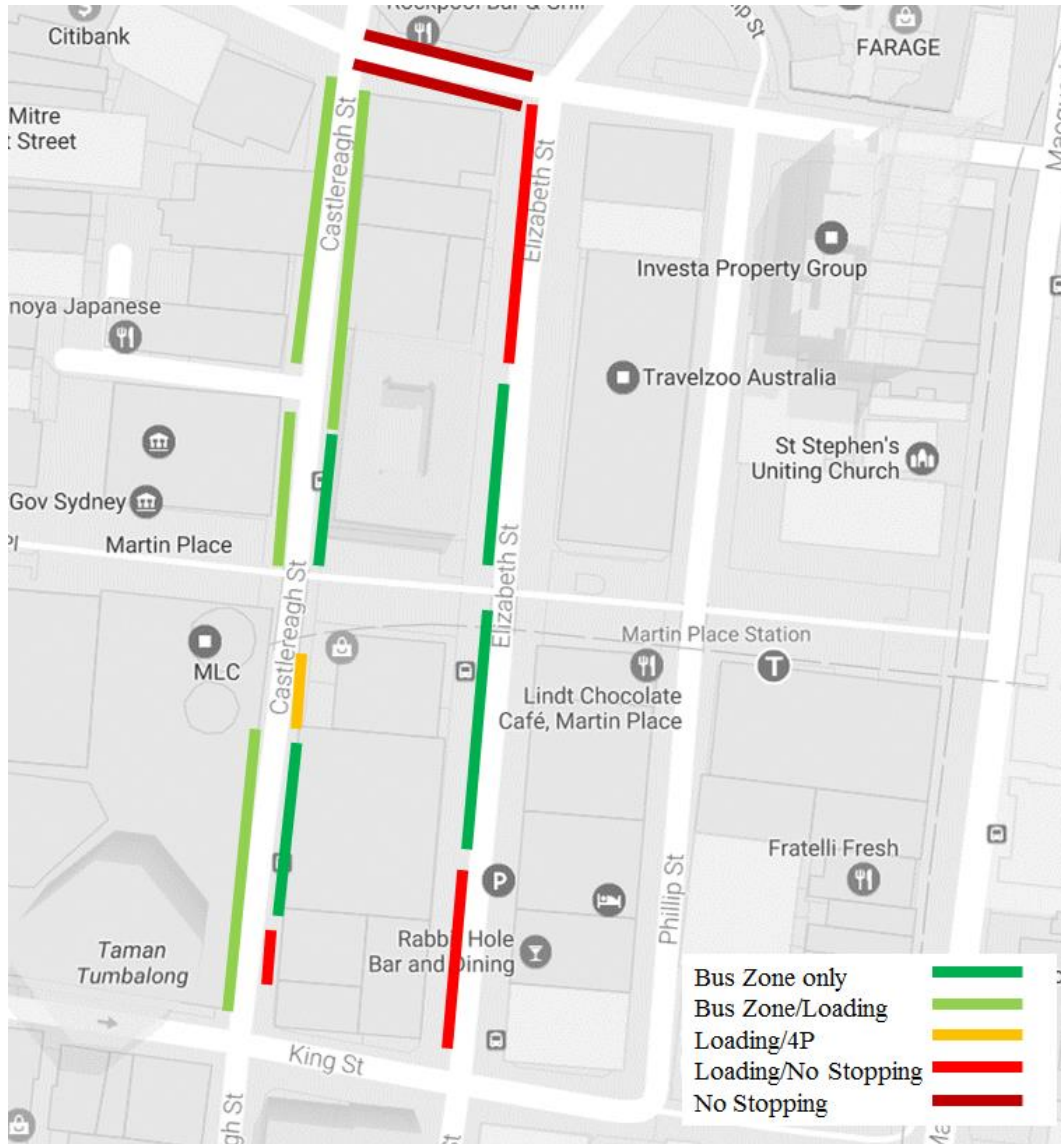


Figure 7 Weekday daytime kerbside uses



## 3.6 Public Transport Access

The area is highly accessible by public transport as reflected by the high usage of trains, buses and ferries as a travel mode to work (approx. 75%). The North and South site has some of the highest public transport accessibility in Sydney, with the location of the main rail and ferry transport nodes with 800m walking catchment of the precinct shown in Figure 8. A summary of these public transport options are summarised below.

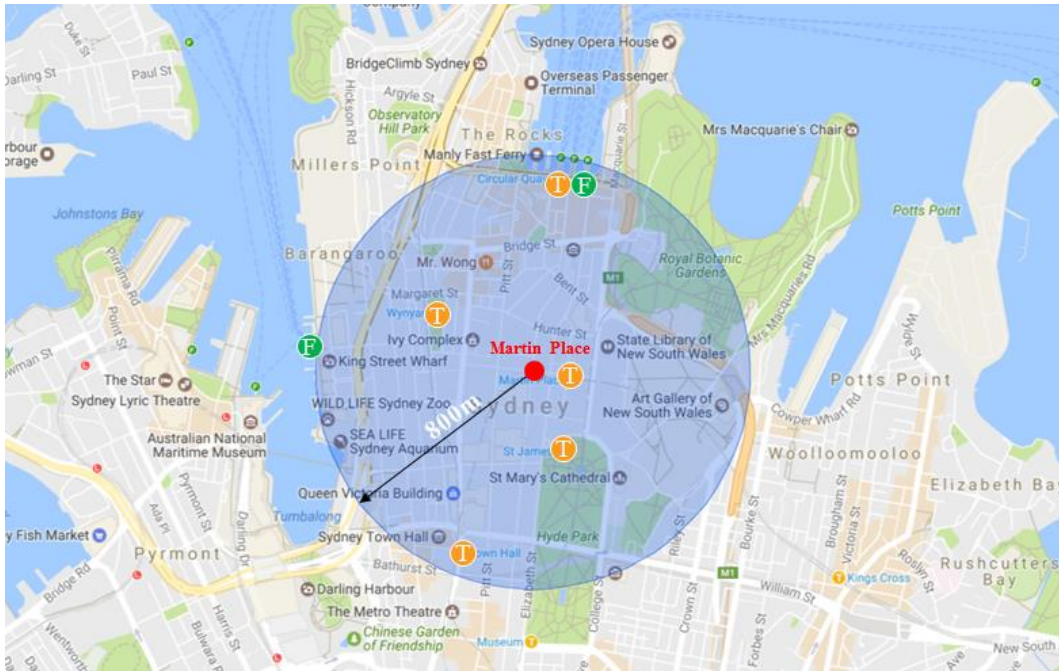


Figure 8 Main public transport nodes surrounding the precinct

### 3.6.1 Trains

Martin Place Station has a direct pedestrian access to Martin Place, with the station having seven operational pedestrian access points at present. Train services operating at this station include the T4 Eastern Suburbs and Illawarra Lines, offering high frequency services between Bondi Junction and areas in southern Sydney, including Hurstville, Sutherland, Cronulla, Waterfall and Wollongong.

These trains stop at Town Hall (next stop west of Martin Place) which offers direct interchange to most destinations on the Sydney Trains network.

St James Station's entrance on the north side of St James Road is approximately 200m from the South Site (i.e. 39-49 Martin Place). This station is on the City Circle line offering services to the T3 Airport and East Hills Line, as well as to the Inner West via Circular Quay, Wynyard and Town Hall.

Wynyard Station's George Street entrance is approximately 550m from the precinct, walking via Martin Place, George Street, Wynyard Street and Carrington Street.



### 3.6.2 Buses

The CBD is supported by extensive bus networks, which cover most of the area within approximately 10km of the CBD, as well as some longer distance services from the Northern Beaches, Upper North Shore and the Northwest. This network comprises primarily direct services which serve particular suburbs at their outer extent and then converge on corridors as they approach the CBD. The combined service frequencies on a number of these corridors, such as Oxford Street, Broadway and Victoria Road are in the range of 50 to 120 buses per hour.

#### Sydney Buses

A number of buses stop on George Street. Services originate from

- Inner West including Ashfield, Burwood, Lilyfield, Abbotsford and Chiswick via Broadway and George Street;
- North West via Victoria Road corridor including areas such as Ryde and Eastwood; and
- South West (Tempe, Kingsgrove, Canterbury, Dulwich Hill).

When leaving the City most services use Castlereagh Street. Services from the Eastern Suburbs generally run along Elizabeth Street.

Another major transport interchange is Wynyard, which has services from the Northern Beaches and Lower North Shore, and the Victoria Road Corridor.

#### Private Bus Operators

In addition to the above Sydney Buses services, a number of private operators offer services to the City. These include services from:

- Sydney's North West (Hillsbus) which generally use the M2 Motorway alignment and Gore Hill Freeway, connecting at Wynyard and then Town Hall and Railway Square; and
- Sydney's Upper North Shore (Forest Coach Lines and Shorelink) connecting Belrose, North Turramurra, East Wahroonga and Terry Hills stopping at Wynyard and Town Hall.

Convenient bus stops are in the Wynyard area and some inbound services stop at York Street, which is marginally closer to the precinct.

### 3.6.3 Ferry

Circular Quay Ferry Wharves are approximately 700m from the northern boundary of the North Site, walking via Bligh Street and Young Street. From Circular Quay, there are regular ferry connections to Manly, Taronga Zoo, Parramatta, Darling Harbour, Neutral Bay, Mosman Bay and Eastern Suburbs. The Sydney Ferry Network is presented in Figure 9.

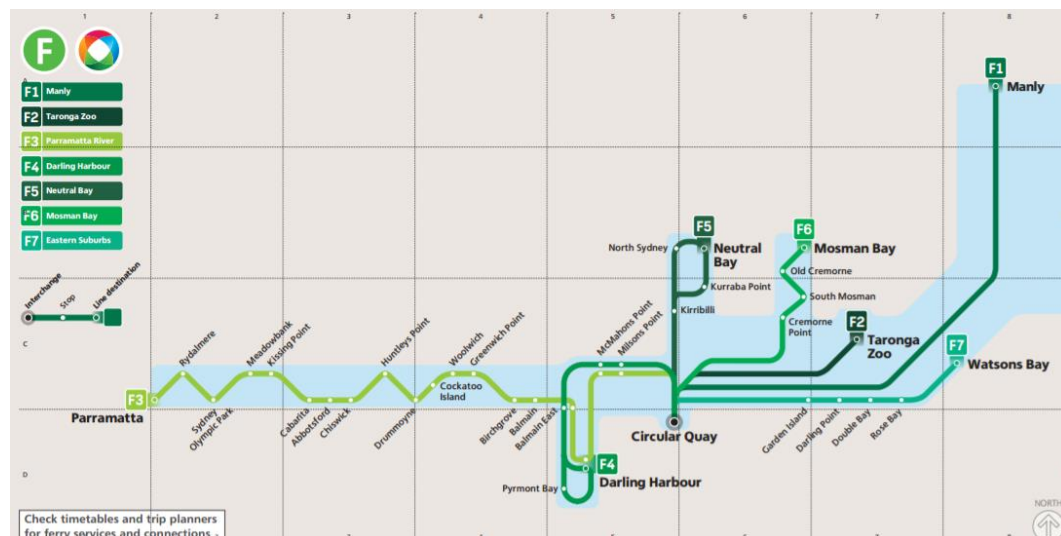


Figure 9 Sydney Ferry Network

### 3.6.4 Light Rail

The CBD and South East Light Rail is a 12km light rail network currently under construction. When completed, it will operate between Circular Quay and Kingsford/Randwick with 19 stops (including Central Station). The nearest stop to the precinct will be the Wynyard stop on Georges Street, approximately a 5-minute walk.

Construction is expected to be completed with services operational in 2019.

### 3.7 Pedestrian Access

The main pedestrian access points to the existing buildings are presented in Table 2. Much of the ground floor space on Castlereagh Street and Elizabeth Street is occupied by retail units, each with individual entrances from street level for pedestrians.

Table 2 Pedestrian Access Points

Building Address	Primary access points
55 Hunter Street	Hunter Street, Castlereagh Street and Elizabeth Street
5 Elizabeth Street	Castlereagh Street and Elizabeth Street
7 Elizabeth Street	Elizabeth Street
9-19 Elizabeth Street	Elizabeth Street
8-12 Castlereagh Street	Castlereagh Street
50 Martin Place	Martin Place and Elizabeth Street
39 Martin Place	Castlereagh Street, Martin Place and Elizabeth Street

### 3.8 Pedestrian Volumes

As part of the Sydney Metro (Chatswood to Sydenham) EIS, pedestrian surveys were undertaken in December 2015 at the Martin Place / Castlereagh Street and Martin Place / Elizabeth Street pedestrian crossings.

The surveys showed:

- Around 44,300 pedestrians crossed at Castlereagh Street throughout the day, with around 20,950 travelling eastbound and 23,350 travelling westbound. In the AM period the dominant pedestrian movement was westbound towards commercial buildings and George Street, whilst in the PM period the dominant movement was eastbound towards the Sydney Trains Martin Place Station.
- Around 33,900 pedestrians crossed at Elizabeth Street throughout the day, with around 13,700 travelling eastbound and 17,200 travelling westbound. As with Castlereagh Street, the majority of pedestrians travel westbound in the AM period and eastbound in the PM period.<sup>2</sup>

### 3.9 Cycling Network

There are a number of key cross-city cycle routes in the CBD which form part of City of Sydney Council's cycling network. These routes are as follows:

- Kent Street (separated, bi-directional cycleway)
- King Street (separated, bi-directional cycleway)
- Pyrmont Bridge (shared cycle path)
- Macquarie Street (mixed street environment)
- Alfred Street north (shared cycle path)
- College Street (separated, bi-directional cycleway)

The Sydney City Centre Access Strategy was released by the NSW Government in December 2013. The strategy outlines the future city centre cycleway network to encourage growth in cycling and reduce pressure on the public transport system. The future city centre cycle network is shown in Figure 10, and includes:

- Extending the Kent Street cycleway south to Liverpool Street
- Construction of a bi-directional cycleway on Liverpool Street
- Construction of a bi-directional cycleway on Castlereagh Street and Pitt Street, providing a new north-south connection through the CBD
- Extending the existing King Street cycleway to Castlereagh Street
- Extending the east-west cycleway along Park Street to Castlereagh Street

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<sup>2</sup> Extract from Sydney Metro, Chatswood to Sydenham EIS, Chapter 8

The provision of a bi-directional cycleway on Pitt Street which connects with the wider cycle network will significantly improve the accessibility of the precinct by bicycle.

There is a small amount of on-street bicycle parking (c.15 stands) located along the streets surrounding the precinct. Most of the stands are attached to street furniture (see Figure 11) with three dedicated stands located at the corner of Castlereagh Street and Martin Place.



Figure 10 Strategic Cycleway Network Map

(Source: Sydney City Centre Access Strategy)



Figure 11 Local cycle parking facilities

## 4 Development Proposal

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### 4.1 Description

This Planning Proposal relates only to the following properties:

- 50 Martin Place, 9 – 19 Elizabeth Street, 8 – 12 Castlereagh Street, 7 Elizabeth Street, and 55 Hunter Street (North Site); and
- 39 – 49 Martin Place (the South Site);

The Planning Proposal seeks to amend the Sydney LEP through enabling greater building height (South Site only) and floor space (North and South Sites). The proposed amendments will establish new maximum allowable Floor Space Ratios (FSRs) for both the North and South Sites, and which are limited generally to employment generating land uses.

Each site will accommodate one OSD tower above the future Sydney Metro Martin Place Station (representing the northern and southern entries/gateways to the Sydney Metro station). The land acquired for the Sydney Metro Martin Place Station is the same as for the Macquarie proposal, except that the Macquarie proposal includes the two properties north of Martin Place owned by Macquarie, namely 50 Martin Place and 9-19 Elizabeth Street.

Both the North and South Sites are regular in shape and have area of approximately 6,022m<sup>2</sup> and 1,897m<sup>2</sup> respectively. Once completed, there is expected to be approximately 15,000 employees working in the precinct (approximately a 10,500 increase from existing employment population).

### 4.2 Mode Share

A target mode split for the OSD development has been set and is presented in Figure 12. Similar to existing travel patterns, more than half of employment trips in the Precinct will travel by Train/Metro (55%), with travel by bus (25%) having the second highest mode share. Walking and cycling are both anticipated to have a mode share of 5%.

Although no additional car parking will be provided in the Precinct, a small amount of employees are expected to continue to drive, parking in neighbouring parking lots, rented spaces or at peripheral park and ride locations.

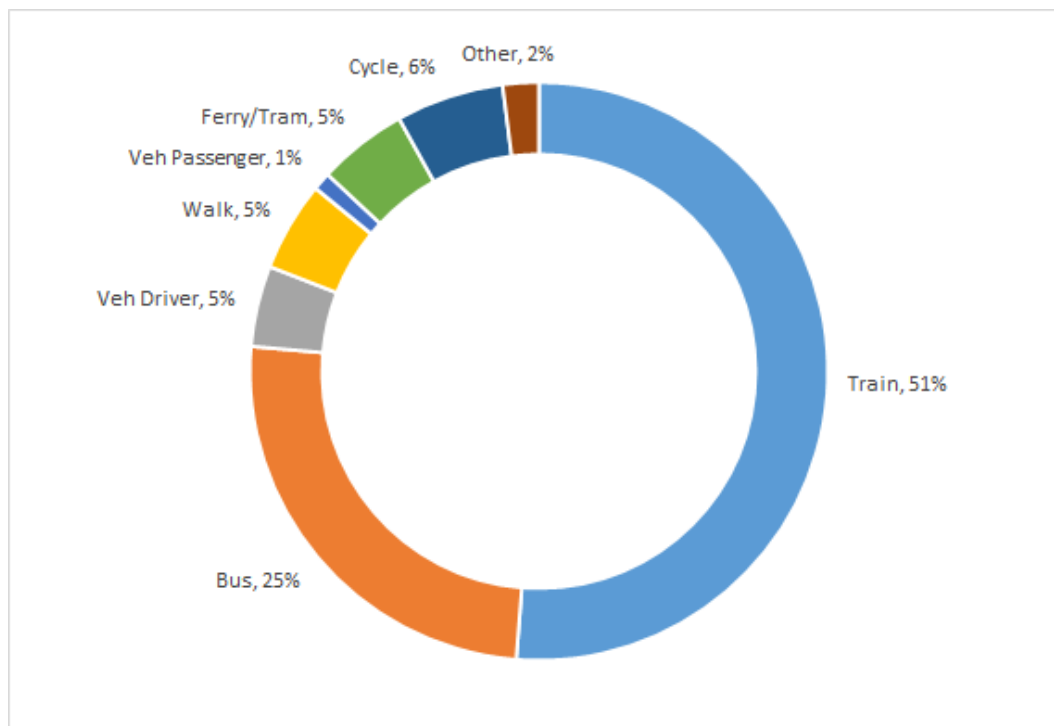


Figure 12 OSD Target Mode Split

The OSD is anticipated to generate the following number of staff arrival trips based on a typical day (i.e. assumed 85% office occupancy – 12,750 staff travel on a typical day). These trips would take place over a three hour morning peak period, with approximately 50% taking place during the morning peak hour (8am-9am).

Table 3 OSD Generated trips

Mode	Existing Mode Share	Existing Trips (4,500 staff)	Future Mode Share	Future Trips (15,000 staff)	Increase	Peak Hour Increase
Train/Metro	47%	1,798	51%	6,503	4,705	2,352
Bus	24%	918	25%	3,188	2,270	1,135
Veh Driver	14%	536	4%	510	-26	-13
Walk	6%	230	6%	765	536	268
Vehicle Passenger	3%	115	1%	128	13	6
Tram/Ferry	2%	77	5%	638	561	281
Cycle	2%	77	6%	765	689	344
Other	2%	77	2%	255	179	89
<b>Total</b>	<b>100%</b>	<b>3,825</b>	<b>100%</b>	<b>12,750</b>	<b>8,925</b>	<b>4,463</b>

As shown in Table 3, the additional employee trips generated by the OSD will be accommodated using sustainable modes.



### 4.3 Vehicular Site Access and Loading Dock

Vehicular access to the North and South Site will be limited to service vehicles accessing the loading dock. No new additional on-site car parking spaces will be proposed as part of the development, with the majority of car parking to be removed from 55 Hunter Street and 39-49 Martin Place.

Indicative loading dock access points for each Site are presented in Figure 13 (both off Castlereagh Street). It should be noted that these are indicative locations and further detail regarding proposals for the North and South site will be submitted in future applications (Stage 2 DAs).

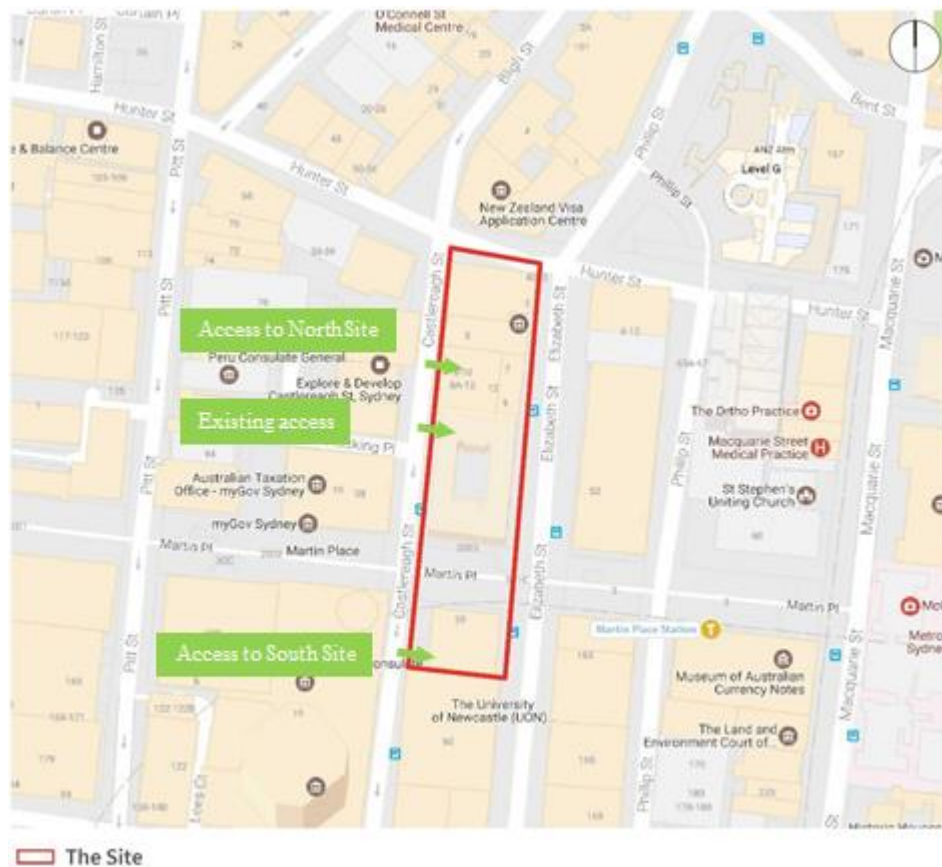


Figure 13 Indicative access to new and existing service yards

### 4.4 Loading Dock Requirement

Given the constrained nature of the North and South sites due to the Metro Station provisions, it is not possible to provide the full loading dock requirement as set out in the Sydney City DCP 2012.

A more sustainable outcome for the provision of service vehicles and refuse collection will be achieved by managing the dock activities throughout the day. The proposed provision can therefore be reduced and a suitable allocation of vehicle sizes has been developed by considering vehicle type and length and the likely frequency to determine a possible configuration as summarised below.

- North site – 2 MRV spaces and 8-9 SRV spaces
- South site – 1 MRV turntable

All docks will come under a management strategy to ensure efficient use of space available and coordination of all deliveries so that there are no queued or waiting vehicles on the street. All deliveries will be subject to strict time limits to allow high turnover and efficient use of the managed loading bays.

Data has been obtained recently for the 420 George Street loading dock which services approximately 50,000m<sup>2</sup> GFA of commercial and 9,000m<sup>2</sup> GFA of retail. This is shown in Table 4.

Table 4 Service vehicle movements for 420 George Street.

Time	Cars	Vans	Trucks	Motorbikes	Total
0600-0700	0	1	0	0	1
0700-0800	2	1	1	0	4
0800-0900	0	2	3	0	5
0900-1000	2	2	1	0	5
1000-1100	1	2	2	0	5
1100-1200	2	4	0	0	6
1200-1300	1	2	0	1	4
1300-1400	2	2	0	0	4
1400-1500	2	2	0	1	5
1500-1600	1	3	0	1	5
1600-1700	0	2	0	0	2
1700-1800	0	0	0	0	0
Total	13	23	7	3	46

The North and South Sites combined will have approximately 2.5 times the amount of commercial GFA and significantly less retail GFA (which is a larger generator of service vehicle movements) than 420 George Street. On a pro-rata basis, the peak demand would be for 15 service vehicles (between 11:00 and 12:00). This is less than the capacity of the loading dock which would expect to have a 20-minute vehicle turnover for the majority of vehicles.

## 4.5 Car & Motorcycle Parking

As part of the Sydney Metro project, short-stay parking will use existing and planned kerbside zones. No new additional car parking or motorcycle parking is proposed as part of the proposals for the precinct and most of the existing car parking will be removed.

## 4.6 Bicycle Parking

End of trip facilities and bicycle parking will be provided for employees and visitors of the new development in accordance with the Sydney City DCP 2012 and Green Star requirements.

Bicycle parking is required to be Class 2 secure bicycle spaces for the employees of the building and Class 3 bicycle racks for visitor spaces (which are easily accessible and clearly signposted).

The allocation and location of bicycle parking and access arrangements will be addressed in future applications.

## 5 On-street vehicular Circulation

### 5.1 Vehicle access routes

Vehicular access routes between the development vehicular access points on Castlereagh Street and the Sydney Orbital Network are described below:

#### 5.1.1 Routes to/from the South

**From the south:** Travelling northbound on the M1 Eastern Distributor Road and taking the City North exit, vehicles are routed via Shakespeare Place, Bent Street and Bligh Street.

**To the south:** Vehicles are routed via King Street, Elizabeth Street, St. James Road and Macquarie Street before merging onto the M1 Eastern Distributor Road southbound at the intersection of Macquarie Street and Bent Street.

Vehicle access routes are presented in Figure 14.

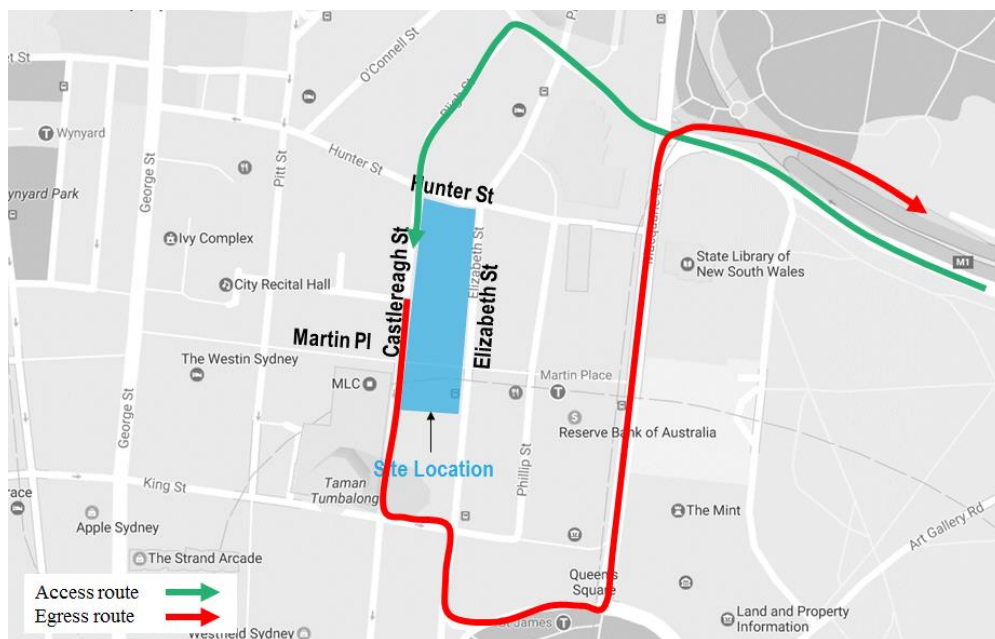


Figure 14 Vehicle access routes to the south

#### 5.1.2 Routes to/from the North

**From the north:** Travelling southbound on the M1, vehicles are routed across Sydney Harbour Bridge and onto the Cahill Expressway before turning onto Bridge Street, Loftus Street, Bent Street and Bligh Street.

**To the north:** Vehicles are routed via King Street, Elizabeth Street, St. James Road and Macquarie Street before turning onto the Cahill Expressway at the intersection of Macquarie Street and Bridge Street.

Vehicle access routes are presented in Figure 15.

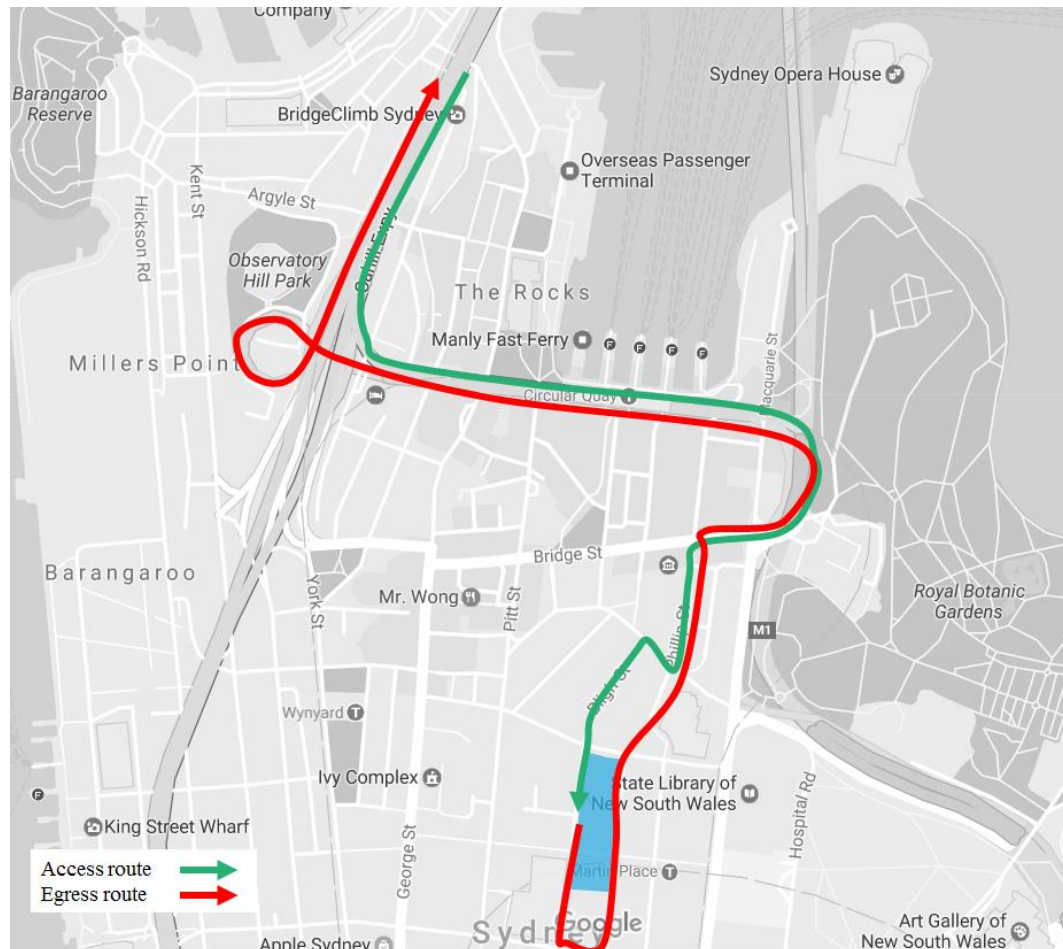


Figure 15 Vehicle access routes to the north

## 6 Transport Assessment

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### 6.1 Traffic Generation

As no new additional car parking spaces are proposed to be provided as part of the Planning Proposal (with surplus car parking spaces removed), traffic generation will be related to servicing, deliveries etc. The increased volumes of these, compared to the existing traffic generated by the existing developments, is expected to be negligible and will occur throughout the day managed by a loading dock management plan.

### 6.2 Road Network Impacts

As the increase in traffic volumes at peak times is expected to be negligible, no impacts on the road network are anticipated when the development is operational.

### 6.3 Public Transport

The Sydney Metro and the Eastern Suburbs railway at Martin Place will provide a very high level of accessibility by train. Bus stops and taxi ranks in Castlereagh Street and Elizabeth Street will provide good opportunities for other modes of access. The location also takes advantage of being 350m from George Street for LRT access and 700m from Circular Quay for ferry access. The station and supporting intermodal facilities will create a highly accessible public transport precinct.

As outlined in Section 4.2, the OSD will generate approximately 2,350 additional Train/Metro trips, 1,100 additional bus trips and 280 additional Tram/Ferry trips during the morning peak hour.

The Sydney Metro, along with signalling and infrastructure upgrades across the existing Sydney rail network is anticipated to increase the capacity of train services entering the CBD – from about 120/hr today to 200 services beyond 2024. Considering the significant increase in capacity, the impact of the development on Train/Metro capacity is considered acceptable.

Similarly, the existing extensive bus network and the proposals set out in Sydney's Bus Future to increase services, capacity's and journey times across the network, the impact on bus capacities are considered to be acceptable.

### 6.4 Walking

The footpath network provides a range of routes for access to Martin Place which acts as an important spine for pedestrian movement in this part of the CBD. Detailed assessment of the local footpath conditions for the anticipated future Martin Place interchange is being undertaken as part of the Sydney Metro City & Southwest project. It is expected that there will be a high level of pedestrian amenity provided for access to the development.



The impact of the additional peak hour trips made by foot on the surrounding footpaths as a result of this proposal is expected to be acceptable considering the various route choices and entrances available to access the North and South Site. A pedestrian planning report has been prepared which assesses this impact.

## 6.5 Cycling

The site is well located to take advantage of the City's existing and planned network of high quality cycleway facilities. The proposed bi-directional cycleway on Pitt Street will form the main north-south spine through the CBD for cyclists into the area. The Macquarie proposal will provide bicycle parking for commercial employees, in line with City of Sydney/Green Star requirements.

The exact allocation and location of bicycle parking across the North and South Sites will be addressed as part of the future Stage 2 DA's.

## 6.6 Emergency Vehicle Access

Emergency vehicle access will be available along both Castlereagh Street and Elizabeth Street.

## 6.7 Interchange Integration

The Macquarie proposal does not change the surface level requirements for interchange functions, but it does offer some opportunity for improvement including:

- Shared on-site bicycle parking facilities to relieve the on-street pedestrian space.
- Greater north-south below ground pedestrian connectivity to relieve the surface footpath use.
- A reduction of vehicle crossovers on Castlereagh Street

The proposed development will be accessed entirely by public transport and active transport modes with very limited car parking proposed and hence the interchange functions will be integrated well with the development.

## 7 Travel Plan

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Macquarie are acutely aware of the importance of facilitating and encouraging travel to and from the workplace by alternative modes to private car. With around 15,000 employees expected to be working across the North and South Sites, there will be a need to implement a Travel Plan which will encourage employees to travel by sustainable modes.

The travel plan will promote commuting and business trips by walking, cycling and public transport and outline incentives which promote the use of these modes. The lack of parking provided as part of the development will, in itself, discourage employees from travelling by private car.

As part of the Travel Plan, a co-ordinator will be appointed whose responsibilities will include the implementation of the Travel Plan as well as monitoring and reviewing the success of it. It is envisaged that regular staff travel surveys will be undertaken as part of the monitoring programme and to obtain feedback.

## 8 Conclusions

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This report examines the transport, traffic, pedestrian and parking implications of the Planning Proposal which seeks to amend the Sydney LEP through enabling greater building height (South Site only) and floor space (North and South Sites). The proposed amendments will establish new maximum allowable Floor Space Ratios (FSRs) for both the North and South Sites, and which are limited generally to employment generating land uses.

The precinct is very accessible by non-car modes as evidenced by the existing Journey to Work travel patterns. The mode split target set for the precinct increases the proportion travelling by non-car modes further.

It is anticipated that the proposal will have a negligible traffic impact on the road network, with no new additional car parking spaces proposed to be provided as part of the Planning Proposal (with surplus car parking spaces removed).

The additional pedestrian trips generated as a result of this proposal will also have an acceptable impact on the surrounding footpaths and crossings considering the various route choices and entrances available.

Similarly, the additional public transport trips are expected to an acceptable impact considering the planned increases in rail and bus capacity and services.

Further detail regarding proposals for the site will be submitted in future applications.