

## **OSD Detailed SSD DA - GREEN TRAVEL PLAN**

### **Victoria Cross Over Station Development**



**Document No: SMCSWSVO-LLC-SVC-TI-REP-000002**

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### Victoria Cross Over Station Development

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## Amendment Record

Changes made to this document since its last revision, which affect its scope or sense, are marked in the right margin by a vertical bar ( | ).

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## Acronyms

Abbreviation	Description
<b>ABS</b>	Australian Bureau of Statistics
<b>BTS</b>	Bureau of Transport Statistics
<b>CBD</b>	Central Business District
<b>Council</b>	North Sydney Council
<b>CSSI</b>	Critical State Significant Infrastructure
<b>CPTMP</b>	Construction Pedestrian and Traffic Management Plan
<b>CTMP</b>	Construction Traffic Management Plan
<b>DA</b>	Development Application
<b>DCP</b>	Development Control Plan
<b>DPE</b>	NSW Department of Planning and Environment
<b>EIS</b>	Environmental Impact Statement
<b>GFA</b>	Gross floor area
<b>GSC</b>	Greater Sydney Commission
<b>LEP</b>	Local Environment Plan
<b>LoS</b>	Level of Service
<b>OD</b>	Origin-destination
<b>OSD</b>	Over station development
<b>Roads and Maritime</b>	NSW Roads and Maritime Services
<b>SEARs</b>	Secretary's Environmental Assessment Requirements
<b>SEPP</b>	State Environment Planning Policy
<b>SSD</b>	State Significant Development
<b>SWTC</b>	Scope of Works and Technical Criteria
<b>TfNSW</b>	Transport for NSW
<b>TZ</b>	Travel zone

## 1. Introduction

This report has been prepared to accompany a detailed State Significant Development (SSD) development application (DA) for a commercial mixed-use Over Station Development (OSD) above the new Sydney Metro Victoria Cross Station. The detailed SSDA is consistent with the Concept Approval (SSD 17\_8874) granted for the maximum building envelope on the site, as proposed to be modified.

The Minister for Planning, or their delegate, is the consent authority for the SSDA and this application is lodged with the NSW Department of Planning, Industry and Environment (NSW DPIE) for assessment.

This report has been prepared in response to the requirements contained within the Secretary's Environmental Assessment Requirements (SEARs) dated 6 May 2019. Specifically, this report has been prepared to respond to the SEARs requirements summarised as follows:

*'measures to be implemented, including a Green Travel Plan, to encourage users of the development to make sustainable travel choices, including walking, cycling, public transport and car sharing, such as the integration with rail and bus infrastructure and provision of adequate bicycle parking and end of trip facilities'*

The detailed SSDA seeks development consent for:

- Construction of a new commercial office tower with a maximum building height of RL 230 or 168 metres (approximately 42 storeys)
- The commercial tower includes a maximum GFA of approximately 61,500 square metres, excluding floor space approved in the CSSI
- Integration with the approved CSSI proposal including though not limited to:
  - Structures, mechanical and electronic systems, and services
  - Vertical transfers
- Use of spaces within the CSSI 'metro box' building envelope for the purposes of:
  - Retail tenancies
  - Commercial office lobbies and space
  - 161 car parking spaces within the basement for the purposes of the commercial office and retail use
  - End of trip facilities
  - Loading and services access
- Utilities and services provision
- Signage locations (building identification signs)
- Stratum subdivision (staged).



## 1.1 The site

The site is generally described as 155-167 Miller Street, 181 Miller Street, 187-189 Miller Street, and part of 65 Berry Street, North Sydney (the site). The site occupies various addresses/ allotments and is legally described as follows:

- 155-167 Miller Street (SP 35644) (which incorporates lots 40 and 41 of Strata Plan 81092 and lots 37, 38 and 39 of Strata Plan 79612)
- 181 Miller Street (Lot 15/DP 69345, Lot 1 & 2/DP 123056, Lot 10/DP 70667)
- 187 Miller Street (Lot A/DP 160018)
- 189 Miller Street (Lot 1/DP 633088)
- Formerly part 65 Berry Street (Lot 1/DP 1230458).

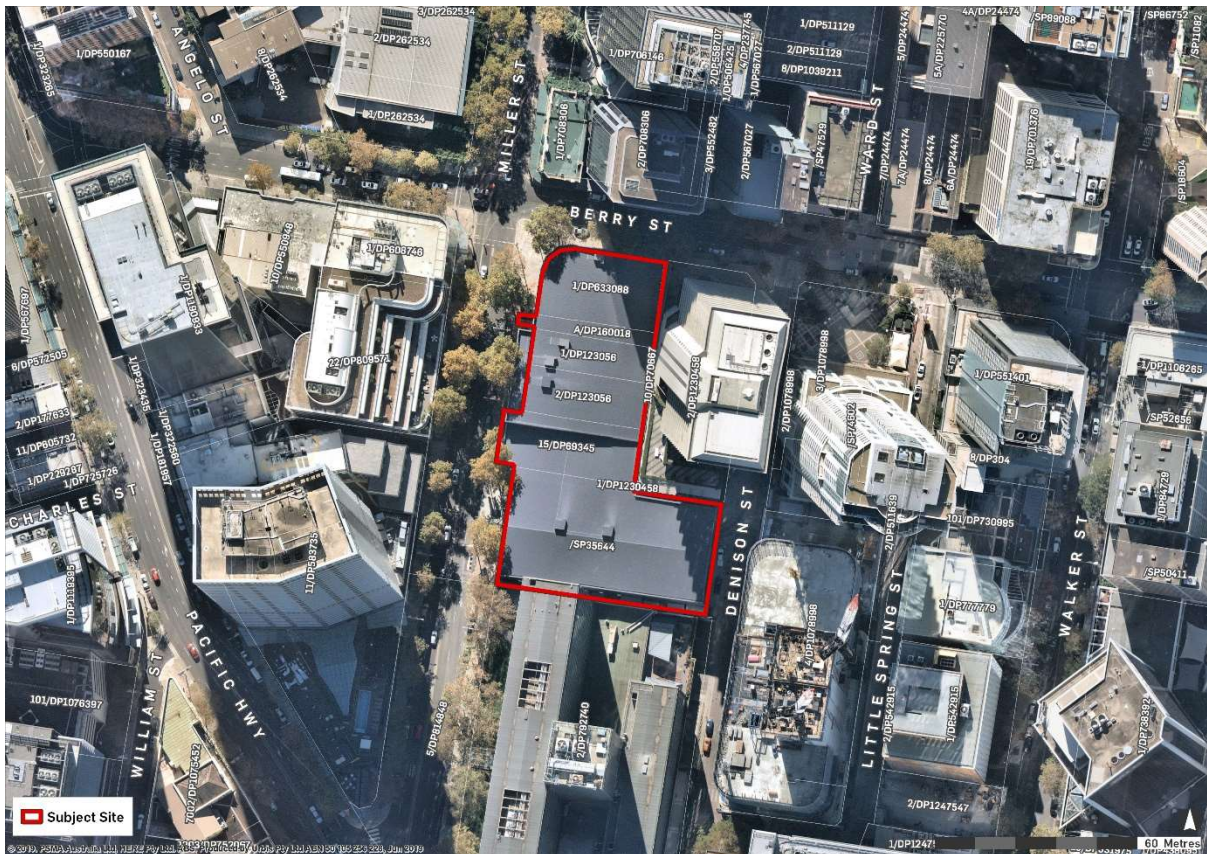


Figure 1 – Site aerial

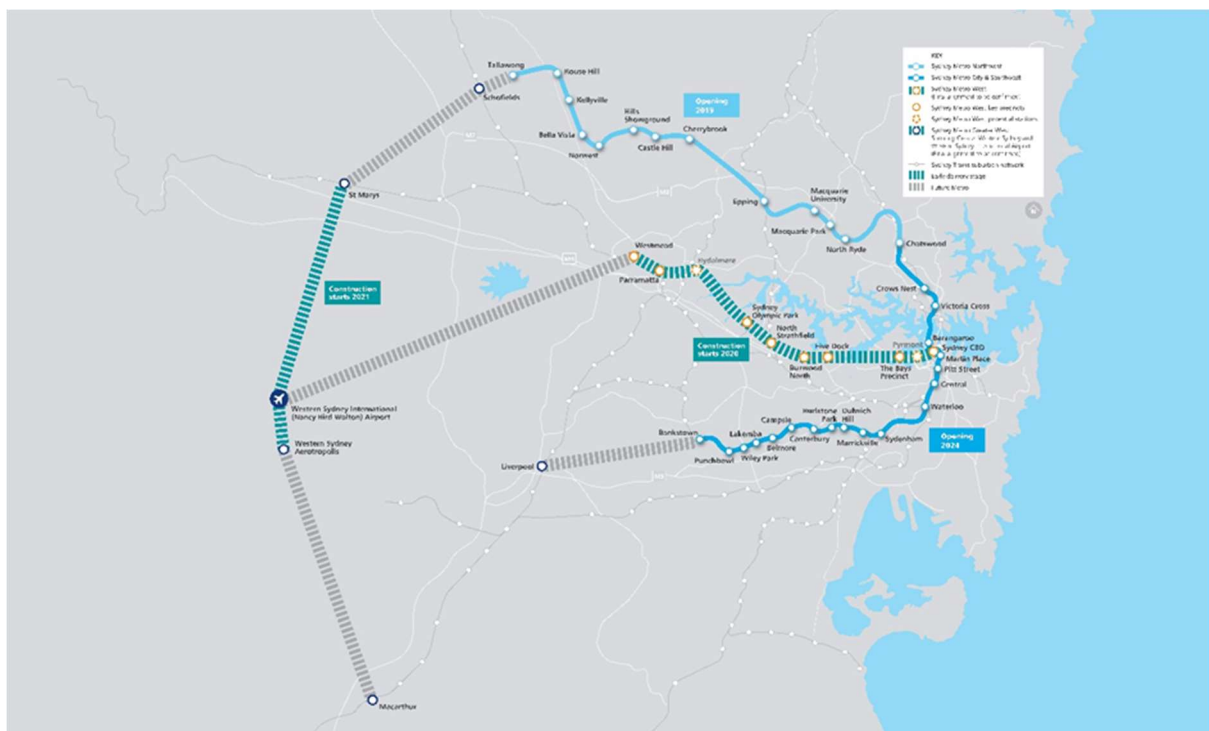
## 1.2 Sydney Metro description

Sydney Metro is Australia's biggest public transport project. Services started in May 2019 in the city's North West with a train every four minutes in the peak. Metro rail will be extended into the CBD and beyond to Bankstown in 2024. There will be new metro railway stations underground at Crows Nest, Victoria Cross, Barangaroo, Martin Place, Pitt Street, Waterloo and new metro platforms under Central.

In 2024, Sydney will have 31 metro railway stations and a 66 km standalone metro railway system – the biggest urban rail project in Australian history. There will be ultimate capacity for a metro train every two minutes in each direction under the Sydney city centre. The Sydney Metro project is illustrated in the Figure below.

On 9 January 2017, the Minister for Planning approved the Sydney Metro City & Southwest - Chatswood to Sydenham project as a Critical State Significant Infrastructure project (reference SSI 15\_7400) (CSSI Approval). The terms of the CSSI Approval includes all works required to construct the Sydney Metro Victoria Cross Station, including the demolition of existing buildings and structures on both sites. The CSSI Approval also includes construction of below and above ground improvements with the metro station structure for appropriate integration with the OSD.

With regards to CSSI related works, any changes to the “metro box envelope” and public domain will be pursued in satisfaction of the CSSI conditions of approval and do not form part of the scope of the detailed SSD DA for the OSD.



Source: Sydney Metro

**Figure 2 – Sydney Metro alignment map**



### 1.3 Objectives and targets

The use of private vehicles is a major contributor towards both greenhouse gas emissions and traffic congestion on Sydney's roads, with significant environmental and social costs. As well as delivering better environmental outcomes such as reduced air and noise pollution, the promotion of sustainable travel options will provide both health and social benefits to the community and reduce traffic congestion.

The objective of this Green Travel Plan (GTP) is provide information and recommendations on potential green travel options for commuters to the OSD, and to make apparent, encourage and support the use of sustainable travel options.

### 1.4 Report structure

This report outlines current travel conditions and potential green travel options for commuting to the commercial OSD above the new Sydney Metro Victoria Cross Station. This GTP has been prepared as a package intended to inform and encourage the use of sustainable transport options for travel to and from the development site, taking into consideration location and accessibility to alternative transport modes. It promotes the use of active transport modes such as walking and cycling, and public transport options that service the area. This GTP provides recommendations on sustainable transport initiatives that be undertaken by the OSD, as well as initiatives for the commercial end user to increase sustainable travel options, with the objective of reducing private vehicle use and increasing the use of active or public transport.

This report is structured as follows:

- **Section 2: Existing conditions** discusses existing and future transport conditions
- **Section 3: Green Travel Plan measures** provides an overview of the changes to the existing transport use due to the proposed development and summarises actions to encourage sustainable transport opportunities
- **Section 4: Monitoring and review** provides an overview of ongoing monitoring actions to obtain maximum benefit from the GTP.

## 2. Existing conditions

### 2.1 Existing mode split and future target

Census 2011 Journey to Work data collected by the Australian Bureau of Statistics (ABS) has been used to assess the current commuter travel behaviour in the proposed development area and characterise the public transport conditions near the site.

The Bureau of Transport Statistics (BTS) uses ABS data to determine the mode used to travel to work by 'travel zones' (TZs<sup>1</sup>). The TZs that apply to this proposed development site are located within the North Sydney CBD, bounded by Ridge Street in the north, the Warringah Freeway in the east, Union Street in the south and the boundary of the suburb of Waverton in the east and are considered appropriate for determining the travel patterns for the site. The location of the relevant TZs are illustrated in Figure 3.



Source: BTS TZs 1951, 1952, 1953, 1954, 1955, 1956 and 1957

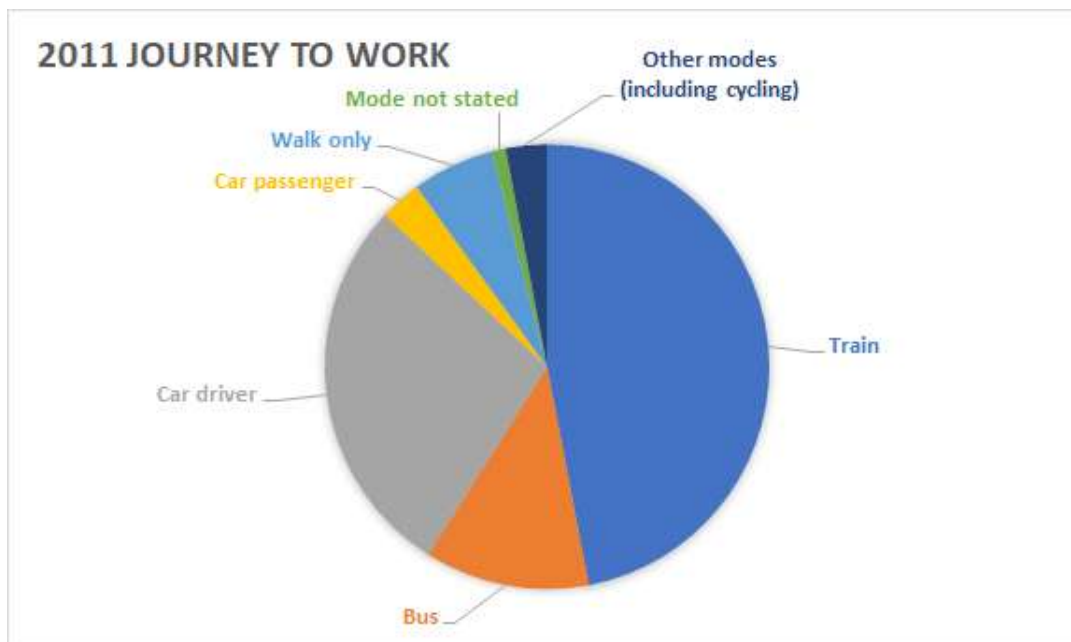
**Figure 3 – Census 2011, Journey to Work relevant TZs**

At the time of the Census and prior to demolition work for the Sydney Metro, this zone included about 39,511 employees. Their main mode of travel is summarised in Figure 4 and includes the following mode share:

- 47 per cent travelled by train
- 12 per cent travelled by bus
- 28 per cent travelled by car as a driver
- 3 per cent travelled by car as a passenger
- 6 per cent walked only
- 1 per cent did not state their mode of travel

<sup>1</sup> TZs 1951, 1952, 1953, 1954, 1955, 1956 and 1957 used for the purpose of this analysis

- Three per cent travelled by other modes (including by bicycle).



Source: Census 2011

**Figure 4 – Census 2011, Journey to Work mode share**

The future mode share for the site has been estimated based on the existing journey to work mode share of more established areas with proposed Sydney Metro stations, such as Pitt Street and Martin Place, which the future of North Sydney is expected to tend towards.

The review highlighted that the mode share for access by private vehicle for journey to work purposes was substantially lower (up to 15 per cent) than the portion of trips by car for North Sydney (31 per cent). Parking provision and management together with a concentration of high density, mix of uses and accessibility to other key catchments are attributing factors to this outcome. Given the accessibility of the Metro Victoria Cross railway station from the OSD, a slight increase in work trips undertaken through rail transport would be expected, due to the increased coverage and accessibility to the site by public transport.

**Table 1 – Comparison of 2011 Journey to Work mode share for other Sydney Metro stations**

Mode	Eastern Harbour City		
	North Sydney	Pitt Street	Martin Place
Train	47%	47%	42%
Bus	12%	21%	22%
Car driver	28%	14%	15%
Car passenger	3%		
Walk only	6%	6%	6%
Mode not stated	1%	11%	11%
Other modes (including cycling)	3%		

Source: Census, 2011

## 2.2 Existing transport provision

There is a wide range of sustainable transport options including both active and public transport available to travellers to the Victoria Cross OSD site, including:

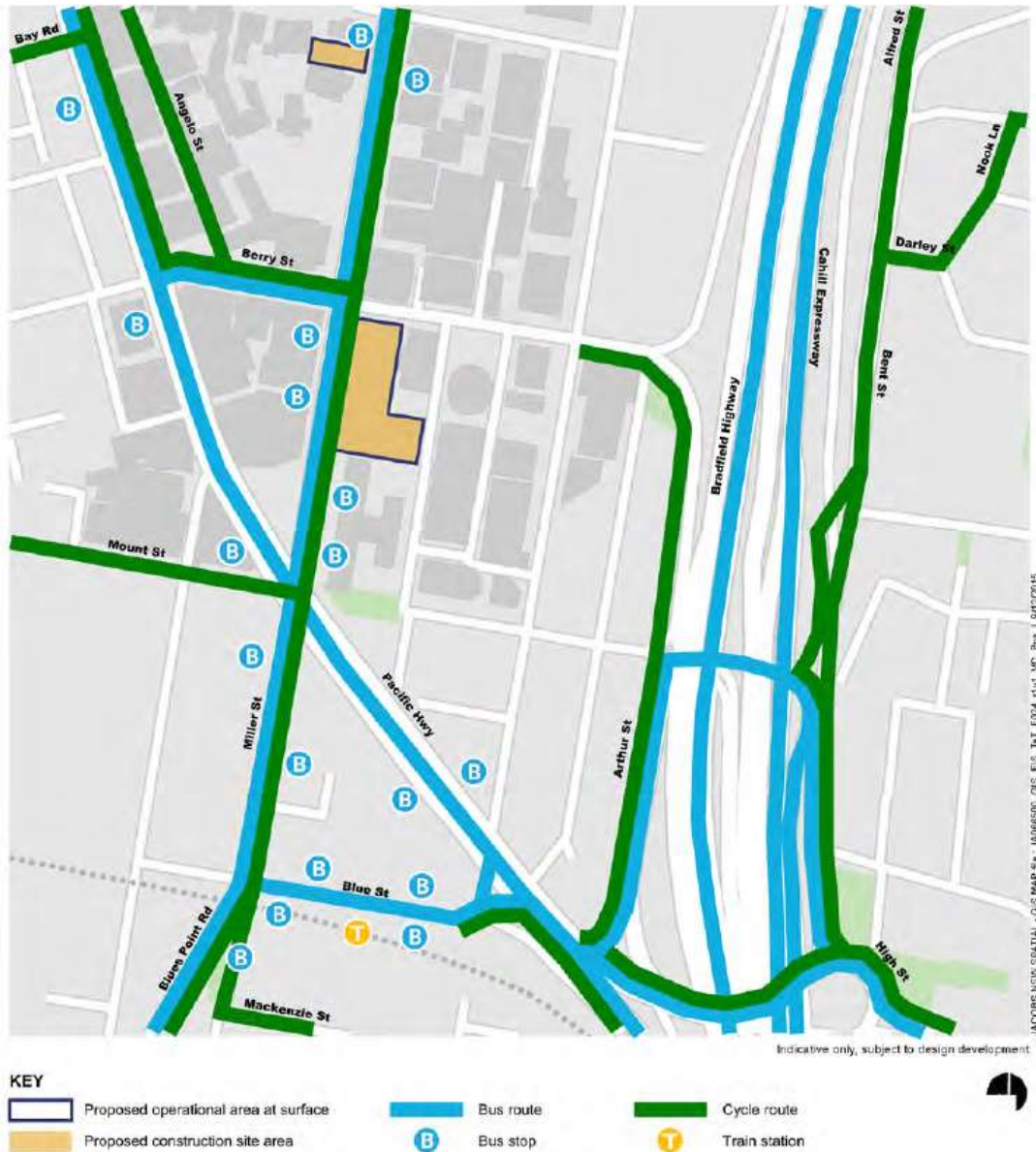
- Bus services
- Train services
- Ferry services
- Walking and cycling
- Car share.

### 2.2.1 Bus services

North Sydney has over 80 bus routes stopping in the area surrounding the site, with major bus stops located on Miller Street, Pacific Highway and Blue Street. These bus routes are operated by Sydney Buses, as well as private operators Hillsbus and Forest Coach Lines. Immediately near the site, there are four bus stops located on Miller Street. Based on the current bus timetable information, the bus routes servicing these stops are summarised as follows:

- Northbound:
  - Bus stop number 206046: 26 bus routes, providing services to the Lower North Shore and Northern Beaches
  - Bus stop number 206045: 18 bus routes, providing services to the Lower North Shore, Northern Beaches and Ryde in the northern suburbs
- Southbound:
  - Bus stop number 206085: 30 bus routes, providing services from the Lower North Shore, Northern Beaches and Ryde in the northern suburbs
  - Bus stop number 206052: 20 bus routes, providing services from the Lower North Shore, Northern Beaches, The Hills District (Dural, Cherrybrook, West Pennant Hills and Kellyville), the northern suburbs (Epping, Denistone East, Macquarie and Gladesville) and services to the Sydney CBD and Botany.

Figure 5 shows the locations of bus and cyclist routes near the site.



Source: Sydney Metro Chatswood to Sydenham EIS (May 2016)

**Figure 5 – Existing public transport and cyclist routes**



### 2.2.2 Train services

The site and its surrounding area is easily accessible via rail, being within reasonable walking distance to North Sydney Railway Station (within a 500-metre radius). North Sydney Station is the fifth busiest train station in the Sydney Trains network during the morning peak period, providing services for morning commuters who work in North Sydney and the surrounding area. Two primary pedestrian access routes between the site and North Sydney Station are grade separated from Pacific Highway, either underground via Miller Street or through a pedestrian overpass via Denison Street.

Alternatively, pedestrian access is provided along Miller Street and along Blue Street for access into North Sydney Station from Blue Street.

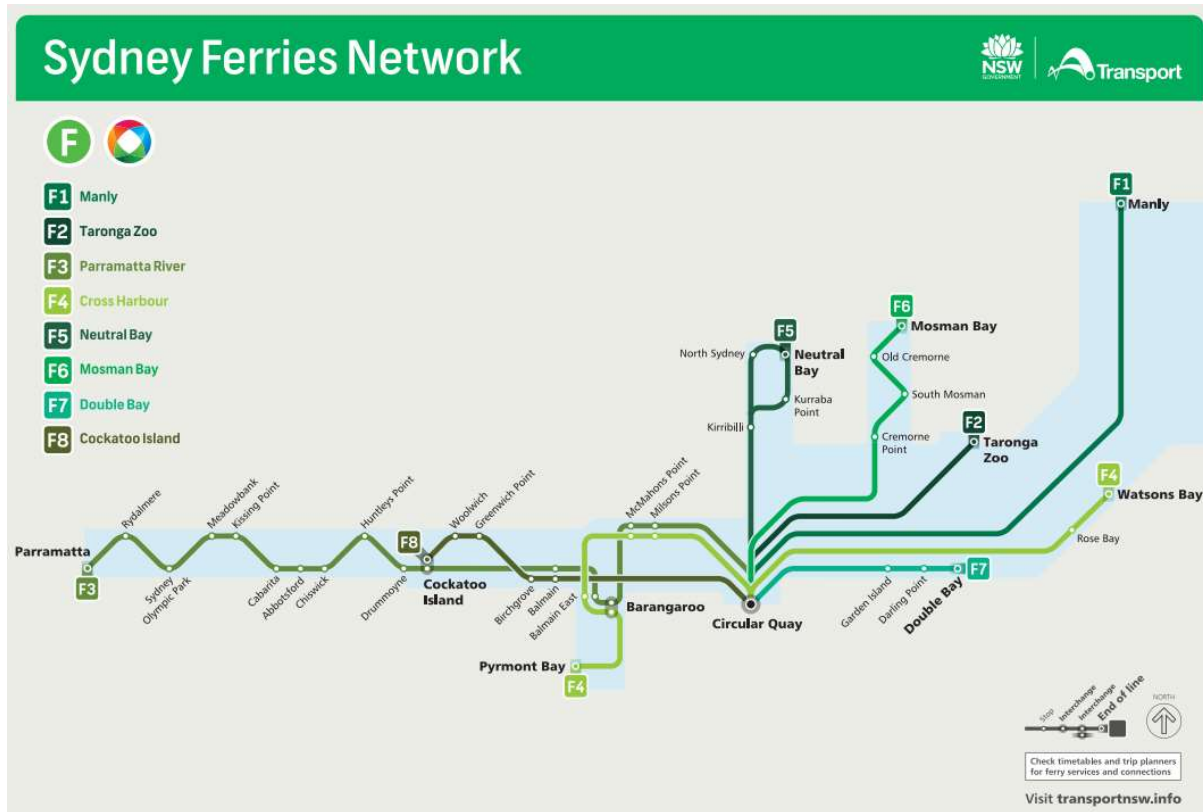
North Sydney Station serves the following train lines:

- T1 Western Line – Emu Plains or Richmond to City
- T1 North Shore Line – Berowra to Parramatta
- T1 Northern Line – Hornsby to City, via Strathfield
- T9 Northern Line – Hornsby to North Shore, via City
- CCN Central Coast and Newcastle Line – Newcastle Interchange to Central, via Strathfield or Gordon.

### 2.2.3 Ferry services

The proposed OSD above the Victoria Cross Sydney Metro Station is accessible via ferry services, with the nearest ferry wharfs being McMahon's Point Wharf and Milsons Point Wharf. Both of these wharfs are located about 1.6 kilometres and about a 20-minute walk from the site, outside of the 15 minute walking catchment indicated in Figure 8. McMahon's Point Wharf is further accessible via a bus from Miller Street, though services are infrequent at approximately every 30 minutes, and Milsons Point Wharf is most easily reached via train from North Sydney Railway Station to Milsons Point Railway Station.

The two ferry wharfs both form a part of the Parramatta River ferry network, which provides a connection between Circular Quay Wharf and Rydalmere Wharf. The Sydney Ferry Network is presented in Figure 6.



**Figure 6 – Sydney ferries network**

#### 2.2.4 Pedestrian infrastructure

A walk score is a measure of pedestrian accessibility of a development to retail and entertainment centres, schools, restaurants and public transport. A high walk score value corresponds to a high level of accessibility by non-car options.

The walk score provides a broad indicative insight on the accessibility of a given area. Figure 7 provides an overview of the scores:

Walk Score®	Description
90-100	<b>Walker's Paradise</b> Daily errands do not require a car.
70-89	<b>Very Walkable</b> Most errands can be accomplished on foot.
50-69	<b>Somewhat Walkable</b> Some errands can be accomplished on foot.
25-49	<b>Car-Dependent</b> Most errands require a car.
0-24	<b>Car-Dependent</b> Almost all errands require a car.

**Figure 7 – Walk score**

The proposed OSD above the Victoria Cross Sydney Metro Station is located in central North Sydney, which offers shopping, dining and public transport services within close walking distance. As a result, the development site and surrounding area has been assessed to have achieved a walk score of 92, making it the 25<sup>th</sup> most walkable neighbourhood in Sydney, and indicating a high level of walkability and accessibility to both public transit and sites visited for daily errands. Residents and those working in the development do not need to rely on private vehicles.

PedCatch is pedestrian accessibility modelling tool that shows the extent of a walking catchment, given speed and time. Using topographical mapping, it takes into consideration physical barriers that may restrict access for pedestrians and present issues for mobility impaired pedestrians.

Figure 8 shows the extent of the site's walkable catchment within 15 minutes, assuming a walking speed of 4.8 kilometres per hour.

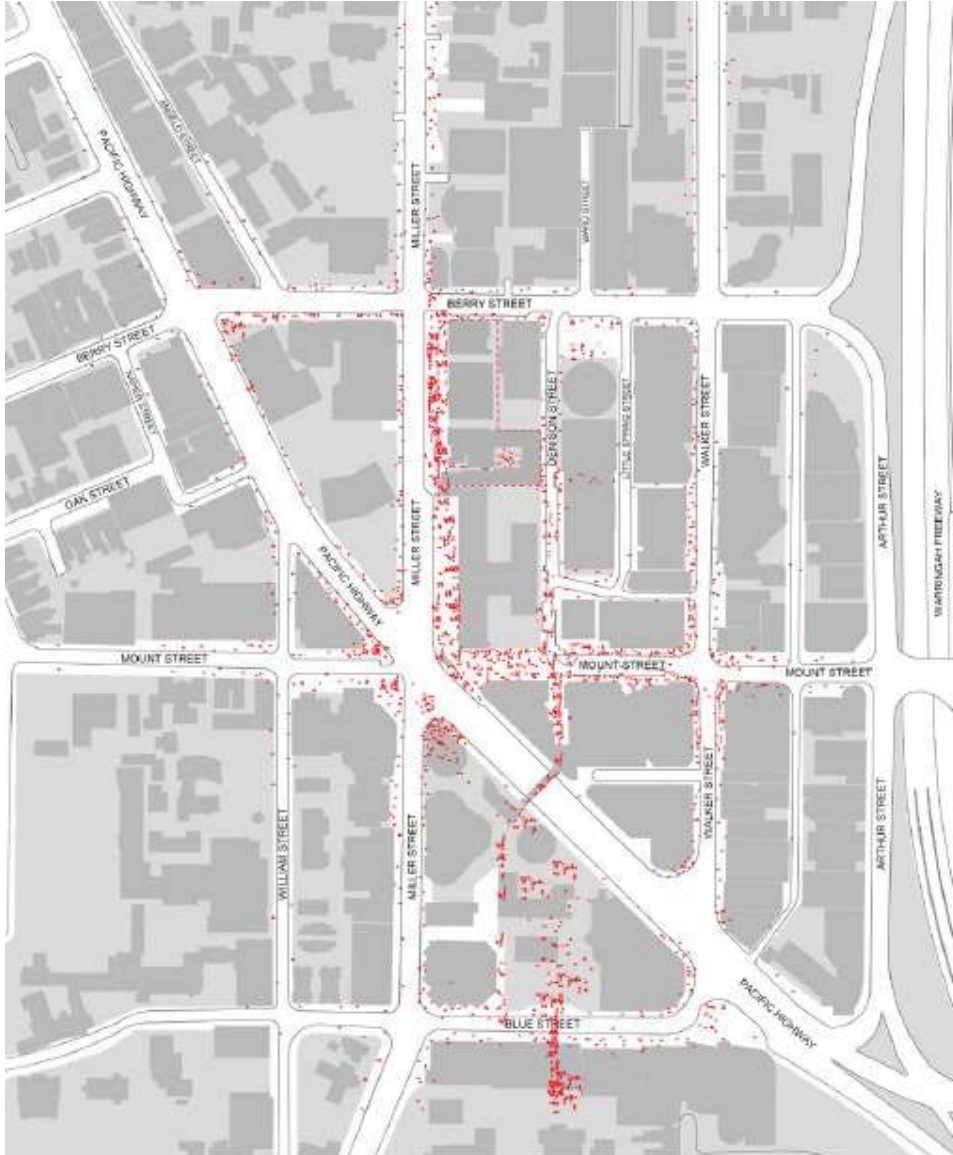


Source: PedCatch, run 8 May 2019

**Figure 8 – Walkable catchment from site**

Near the site, the key pedestrian desire lines are located along Pacific Highway, Miller Street, Denison Street, Mount Street and Walker Street, which are all used to access North Sydney Station and the main commercial land uses with North Sydney. Other key pedestrian generators within North Sydney include the educational precincts, west of the Pacific Highway and north of Berry Street and retail/ restaurants and cafes in Greenwood Plaza and along Mount and Walker streets. Figure 9 shows typical pedestrian movements in the area around the site at 9am on a weekday.





Source: Bates Smart, April 2019

**Figure 9 – Observed existing pedestrian movements at 9am on a typical weekday**

## 2.3 Cycle infrastructure

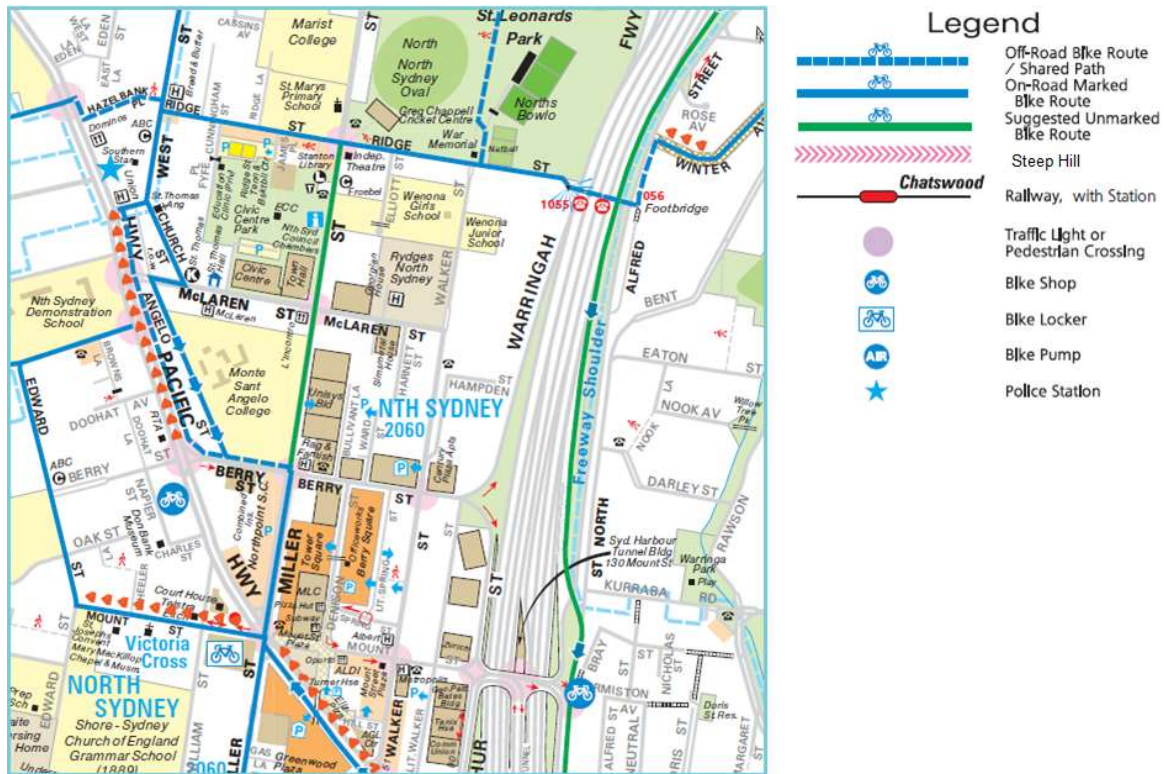
The site is situated within a central location in the North Sydney CBD and is served by the North Sydney bicycle network. The OSD site is ideally located to take advantage of the existing and planned cycleway facilities in North Sydney. The development would be located adjacent to designated on-road cycle routes along Miller Street and planned changes to the road and cycle networks.

Bicycle parking facilities such as O-rings, rails and enclosed lockers are available near the site for cyclists. Use of the secure enclosed lockers available on Mount Street is subject to Council approval,



however there is currently a waiting list of people seeking to use these lockers, indicating that the demand for secure bicycle parking is currently higher than the existing facilities.

Figure 10 illustrates the North Sydney cyclist network from the North Sydney Council website, accessed in April 2019.



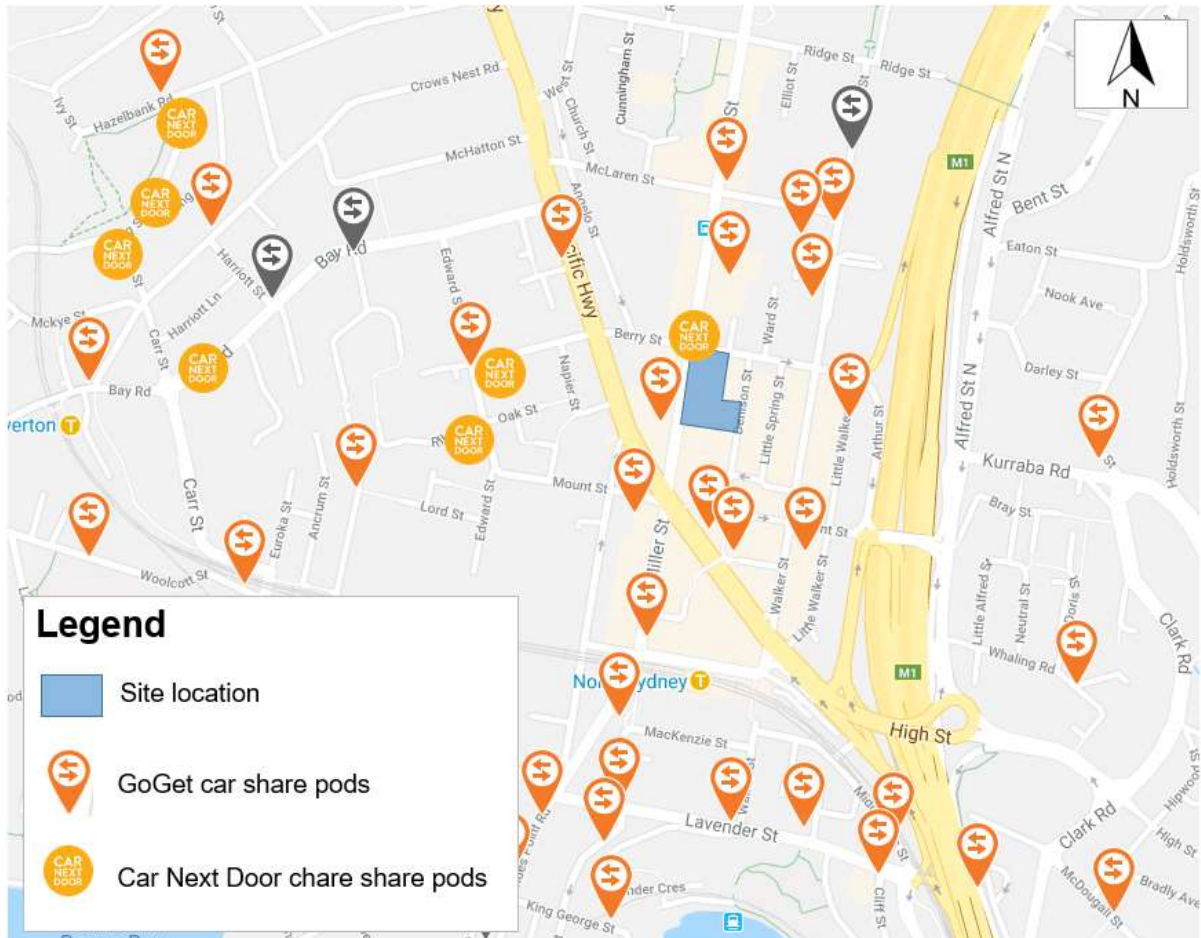
Source: North Sydney Council, 2012

**Figure 10 – North Sydney Cycling Map, 2012**

### 2.3.1 Car share

Car share provides a convenient car rental option, particularly suitable to short periods, with vehicles available from on-street 'pods' or from within car parks for use by residents and local businesses. The North Sydney Council endorses car sharing services as a way to reduce vehicle ownership, which consequently reduces the demand for on-street parking spaces. Within the North Sydney Council area there are car share vehicles available on-street and in car parks, with around 3,500 resident members and 1,500 business members currently in the North Sydney Local Government Area ([https://www.northsydney.nsw.gov.au/Transport\\_Parking/Walking\\_Transport/Car\\_Pool\\_Car\\_Share](https://www.northsydney.nsw.gov.au/Transport_Parking/Walking_Transport/Car_Pool_Car_Share)). GoGet, the longest established operator in Sydney offers a variety of membership options with hourly charges between \$6 and \$10.

Figure 11 shows the indicative car share vehicle pod locations in the area surrounding the Victoria Cross Sydney Metro Station OSD site. It can be seen from the map that there is convenient access to car share services within walking distance of the site, with GoGet providing the majority of car share vehicles within the surrounding area, followed by Car Next Door.



**Figure 11 – Car share pods in North Sydney**

## 2.4 North Sydney Council policy

The North Sydney Council promotes the use of sustainable transport modes through its policies, strategies and initiatives. These include, but are not limited to:

- Encouraging walking for transport in North Sydney by upgrading streetscapes and pedestrian amenities to improve walkability. North Sydney Council encourages the use of apps such as the Sydway Walker app, and has produced various recreational walking maps to engage the community
- Resident parking permits are issued by Council, with permit fees varying based on the environmental impact of the private vehicle being owned. This promotes sustainable private vehicle ownership, as lower fees are issued for smaller, low-fuel consumption vehicles
- Bicycle lockers and parking racks are provided at various key nodal points, to provide destination parking for bikes and to encourage the community to use bike travel for shorter trips of 5 kilometres or under

- The use of motorcycles has been promoted as a favourable alternative to single occupancy motor vehicles by Council (with preference to public and active transport modes). Council has actively increased motorbike parking spaces in the LGA by over 100 per cent since 2005, and is continuing to look for opportunities to expand the motorbike parking network
- Encouraging the use of car share programs as a sustainable, affordable and convenient transport option, and installing new car share spaces
- Replacing Council's fleet of trucks with hybrid models, each saving over 30 per cent in total fuel consumption
- The Make Your Move program, an initiative to encourage active travel as part of school children's daily commute to encourage an active lifestyle, better environmental outcomes and a reduction in school peak hour congestion.

### 3. Bicycle Parking Facility Provision

End of trip facilities and bicycle parking will be provided for employees of the new development in accordance with GBCA 6 Star Green Star requirements. Based on a regular occupant density of one person per 10 m<sup>2</sup> (Lend Lease, 22 February 2019) and 7.5 per cent of staff use bicycles, the provisions for bicycle parking and end of trip facilities is summarised in Table 2.

**Table 2 – Green Star bicycle requirements**

Use	GLA/ NFA (m <sup>2</sup> )	Regular occupant density m <sup>2</sup> / person	Regular occupants	Bicycle parking spaces	Lockers	Showers
Office	55,190	10	5,519	414	497	49
Retail	2,423	20	121	10	12	5
Podium office	1,933	10	193	15	18	6
<b>Total</b>	<b>59,546</b>	<b>-</b>	<b>5,833</b>	<b>439</b>	<b>527</b>	<b>60</b>

The North Sydney DCP provides minimum bicycle parking and end-of-trip facility rates for a variety of land uses, with the relevant provisions shown in Table 3.

**Table 3 – North Sydney Council DCP bicycle facility minimum requirements**

Type	Rate		Minimum requirement		Total minimum requirement	Proposed provision
	Office (60,100 m <sup>2</sup> )	Retail (1,400 m <sup>2</sup> )	Office	Retail		
Occupants	1 space/ 150 m <sup>2</sup> GFA	1 space/ 25 m <sup>2</sup> GFA	394	96	490	439
Visitors	1 space/ 400 m <sup>2</sup> GFA	2 spaces + 1 space/ 100 m <sup>2</sup> GFA	148	26	174	Nil (visitor spaces to be provided in public realm)
Lockers	1 personal locker for each space		490*		490*	527

Type	Rate		Minimum requirement		Total minimum requirement	Proposed provision
	Office (60,100 m <sup>2</sup> )	Retail (1,400 m <sup>2</sup> )	Office	Retail		
Showers and change cubicles	2 showers and change cubicles for 11-20 or more spaces, plus 2 shower and change cubicles for each additional 20 spaces		49*		49*	60

Note:

\*Excludes visitor spaces.

North Sydney Council's DCP requirements relating to bicycle parking and lockers are marginally higher than the requirements of the Green Star requirements however not so for showers. Given the site's accessibility to high-frequency public transport, the proposed provisions in accordance with the Green Star requirements are considered appropriate for the proposed development.

Class 2 secure bicycle parking spaces will be provided for the employees of the building while Class 3 bicycle racks for visitors and Metro users will be provided, which are easily accessible and clearly signposted.

In addition to the bicycle parking and end of trip facilities provided within the OSD, accessible bicycle storage will be provided within the site for up to five per cent of peak visitors at the following rates:

- One space for every 750 square metres of office spaces
- One space for every three square metres for retail space.

In summary a total number of 439 bicycle parking spaces will be provided and associated end of trip bicycle facilities for at least 7.5 percent of staff.



## 4. Green Travel Plan Measures

This section outlines potential opportunities and measures that can be taken to meet the objectives and targets of the GTP. The GTP will support the target mode share for the site summarised in Table 4, which is based on BTS TZ 1953 with proposed adjustments.

**Table 4 – Proposed future mode share for the site**

Mode	TZ 1953	Adjustment proposed	Proposed share for site
Train	48%	Adopt 55.5% to reflect introduction of Metro	55.5%
Bus	12.4%	Adopt minor increase to 16% with introduction of bus services along Western Harbour Tunnel, connecting with B-Line	16%
Ferry/ tram	0.4%	Maintain 0.4% for TZ 1953	0.4%
Car driver	26%	5,833 regular occupants on site (based on 10 m <sup>2</sup> per person) with provision of 161 parking spaces on site and use of some surrounding parking, adopt 10% for site	10%
Car passenger	3.2%	Maintain 3.2% for TZ 1953	3.2%
Walk only	6.4%	Maintain 6.4% for TZ 1953	6.4%
Mode not stated	1%	Maintain 1% for TZ 1953	1%
Other modes (including cycling)	2.6%	Adopt 7.5% to reflect 453 bicycle parking spaces on site for 5,833 regular occupants	7.5%
<b>Total</b>	<b>100.00%</b>		<b>100.00%</b>

### 4.1 General

General marketing and promotion of the availability and benefits of adopting sustainable travel options is highly important in meeting the objectives of this GTP.

Potential measures	Timeframe
Introduce a travel coordinator role as part of the building's management activities to execute the recommendations of this plan during the operation of the OSD	During operation
The provision of easily accessible travel information about available sustainable transport options and facilities, as well as useful mobile applications and travel information websites. This could potentially be incorporated into the building's management activities. A dedicated website could also be considered to provide a portal for travel information specific for the site	During occupation

Potential measures	Timeframe
As part of building management activities, recommendations can be made to tenants of the OSD that staff inductions provide information about sustainable travel options, and potentially a tour of the available bicycle parking and end-of-trip facilities	During operation
Monitor the mode share, use and demand of facilities to inform future updates of the GTP	During operation

## 4.2 Walking

North Sydney is considered a highly walkable neighbourhood due to the accessibility of public transport and locations required for daily errands. To ensure that tenants can benefit from the walkability of the area, the following measures should be implemented.

Potential measures	Timeframe
Inform potential tenants through marketing and leasing activities of the high walkability of the site to public transport hubs and entertainment centres	Prior to and during occupation
As part of building management activities, promote participation in events such as "National Walk to Work Day"	During operation
As part of building management activities, promote walking for short trips in lieu of using a private vehicle	During operation

## 4.3 Cycling

The proposed OSD above Victoria Cross Station is well situated to capitalise on the connections provided by the North Sydney bicycle network. In order to support the promotion of cycling as a mode of access to the development, the following measures should be implemented.

Potential measures	Timeframe
As part of building management activities, inform tenants of safe and accessible cycling routes as well as end-of-trip facilities provided by the building	Prior to and during occupation
As part of building management activities, ensure tenants are informed about the bicycle parking access locations from both Denison Street and Miller Street	Prior to and during occupation
Provide effective internal wayfinding signage to direct tenants and visitors to bike lifts, bicycle parking and end-of-trip facilities	Prior to occupation

Potential measures	Timeframe
As part of building management activities, inform tenants of the presence of cycling clubs and bicycle user groups (BUGs) that may be lobbying for the improvement of cycle facilities in the surrounding area	Prior to and during occupation
Set up a 'Bike Buddies' scheme for less confident staff interested in cycling to work	During operation
Ensure the provided bicycle parking and end-of-trip facilities within the building are secure and maintained	During operation
Ongoing maintenance of end-of-trip facilities and security monitoring systems	During operation
Supply a communal bicycle repair toolkit for tenants	During operation
Promote bicycle share schemes and bicycle pooling schemes for tenants	During operation
Promote participation in events such as "Ride to Work Day" and "National Bike Week"	During operation
Partner with a local bicycle store to provide bicycle maintenance classes and discounted process	During operation

#### 4.4 Public transport

The Sydney Metro and the North Shore railway at Victoria Cross and North Sydney stations, respectively, will provide a very high level of accessibility to the North Sydney area by train, and the bus stops on the Pacific Highway and Miller Street directly in front of the OSD, as well as bus interchange on Blue Street will provide good opportunities for other modes of access. The station and supporting intermodal facilities will create a highly accessible public transport precinct.

Combined with the existing public transport network surrounding the site, it is expected that the mode share to public transport for the site will increase on existing splits.

The proposed OSD is considered to offer high levels of public transport connectivity, especially due to its proximity to the Victoria Cross Metro Station, which would increase coverage and accessibility to the site by public transport due to new Sydney Metro links (Northwest and City and South West lines). Due to the introduction of new tenants, there exists an opportunity to achieve a greater public transport mode share for work trips through early marketing activities.

Potential measures	Timeframe
Inform tenants of the public transport stops in the surrounding area, as well as the expected walk times needed to access the locations. This could be potentially achieved through the provision of a map, and useful applications and travel information websites	Prior to and during occupation
Investigate the possibility of providing shared office Opal Cards for use during business journeys instead of private vehicle travel	During operation

#### 4.5 Carpooling and car share

Carpooling or car share is considered to be a sustainable alternative to the single rider private vehicle. The following measures can be taken to promote the use of car share services to tenants of the building and reduce car ownership.

Potential measures	Timeframe
Promote the cost savings of car share over commuting via private vehicle to residents of the precinct through the tenant website.	During operation
Investigate partnership with GoGet or another provider to offer retail tenants and workers discounted membership options	During operation
Explore the possibility of allocating unleased car spaces within the underground off-street parking areas for car-sharing.	During operation

#### 4.6 Car parking

No additional parking spaces have been proposed by the Sydney Metro Victoria Cross Station OSD concept design, therefore traffic generation will be mainly related to servicing and delivery trips. It is estimated that three per cent of staff will commute by car, resulting in a similar number of car trips during peak times compared to the existing situation.

Potential measures	Timeframe
Provide electric car charging stations within the site	Prior to occupation
Provide clear signage and wayfinding to electric car charging stations	Prior to occupation

#### 4.7 Reducing network travel demand

High travel demand during the morning and afternoon work commuter peak hours produces significant congestion on road and rail networks. North Sydney Station is the fifth busiest station on the Sydney Trains network during the morning peak, experiencing large volumes of pedestrian traffic exiting the station. The following measures would help alleviate the network travel demand across a longer time period and in turn alleviate congestion on the network.

Potential measures	Timeframe
As part of building management activities, encouraging the use of office teleconferencing facilities as an alternative to face-to-face meetings to tenants of the building	During operation
Encouraging flexible working hours to tenants of the building, to arrive and leave work outside of peak hours or to work from home where feasible	During operation



## 5. Monitoring and Review

For this GTP to be effective, it should be reviewed on a regular basis to ensure that the objectives are being met. Travel surveys should be conducted, and the GTP should be updated annually to more effectively achieve its goals.

### 5.1 Responsibility

To ensure the long-term success of implementing the recommendations outlined within this GTP, it is necessary to nominate a group to engage in continual monitoring and review of the various aspects of the plan. This can be achieved through the building management team, who could monitor travel patterns through ongoing travel surveys to assess the effectiveness of the GTP and carry out the initiatives outlined in this plan.

Senior management support from commercial tenants would be highly beneficial in achieving the objectives of this GTP, through providing support to changes and developments to policy documentation, allowing budget allocations for the implementation of measures and leading by example.

### 5.2 Travel surveys

The purpose of a travel survey is to understand the reasons for which commuters to and from the site select their preferred travel modes. In turn, this allows for more effective incentives and initiatives to be developed in increasing the mode share of sustainable travel options.

An example of a travel survey has been provided below.

Q1. What is your postcode? \_\_\_\_\_

Q2. How did you travel here today?

- ☐ Walk only
- ☐ Bicycle
- ☐ Bus
- ☐ Train
- ☐ Ferry
- ☐ Combination of public transport
- ☐ Car driver
- ☐ Car passenger
- ☐ Other (please explain) \_\_\_\_\_

Q3. If you did not arrive via public transport, why not? \_\_\_\_\_

## 6. Conclusion

The Sydney Metro Victoria Cross Over Station Development is centrally located in a commercial area within the North Sydney CBD, with high quality end of trip facilities and convenient access to a wide range of public transport modes.

To ensure that the new commuter trips generated by the OSD contribute towards reaching the green travel targets outlined in this GTP, it is necessary to undertake green travel initiatives such as providing information and promoting the benefits of sustainable travel options to new tenants. This GTP will contribute towards improved social and personal health of the commuters to the development site, as well as improved environmental outcomes.