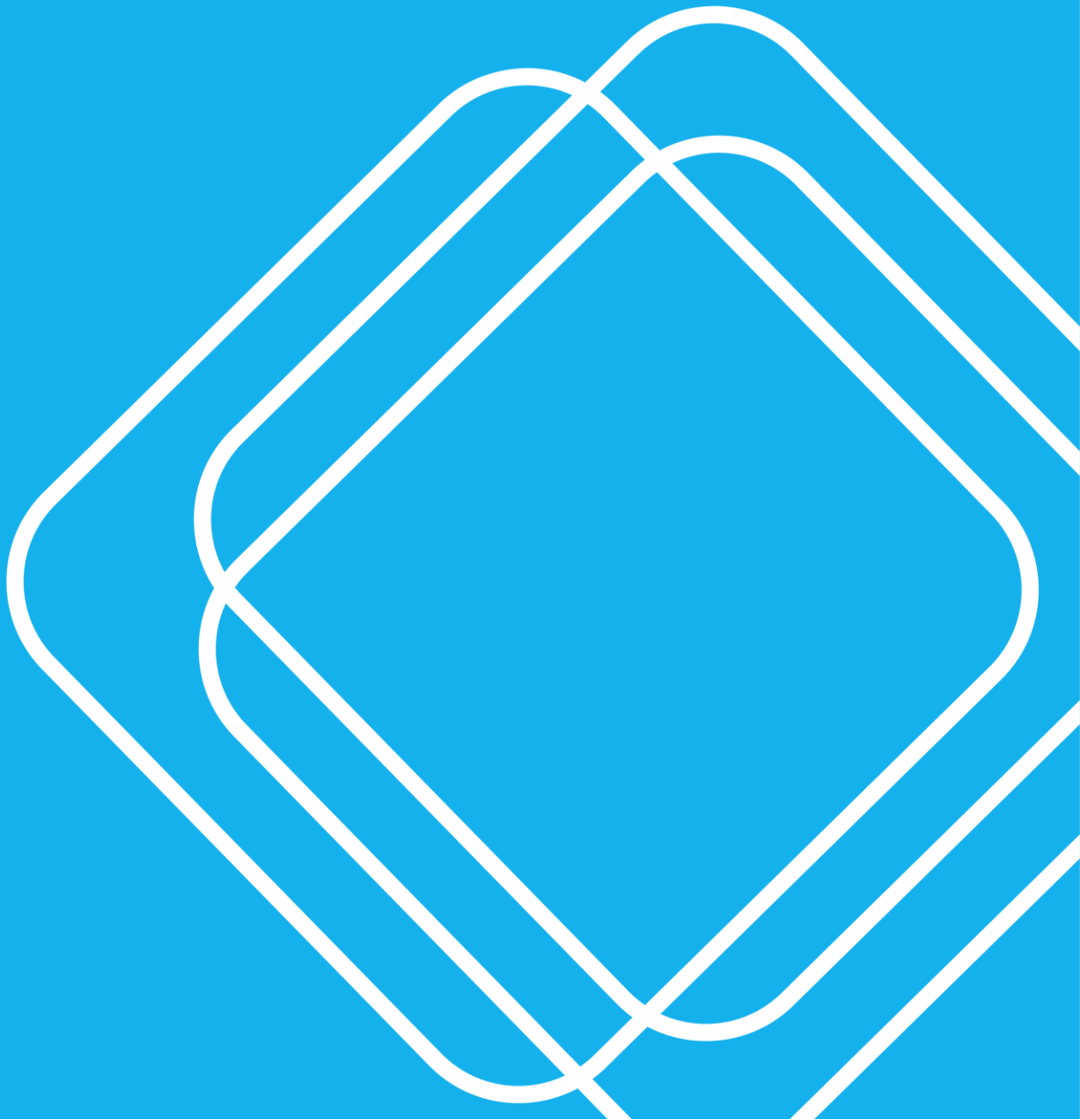
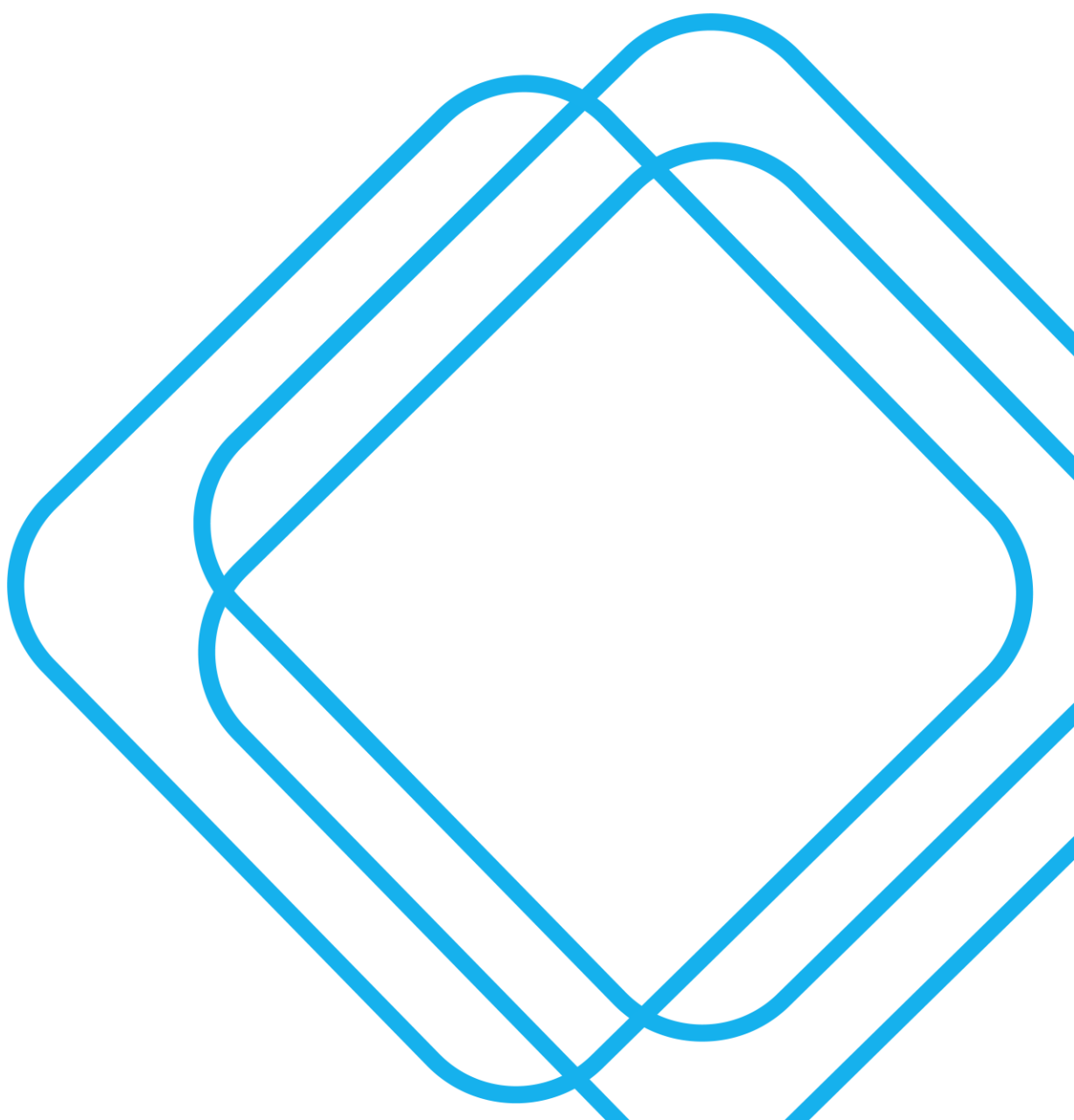


# CHIEF MECHANICAL ENGINEER'S (CME) BUILDING TRAFFIC, TRANSPORT AND ACCESSIBILITY STUDY

505 Wilson Street Eveleigh

7 NOVEMBER 2022





## Quality Assurance

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## Executive Summary

### *Background and introduction*

This report supports State Significant Development (SSD) Development Application (DA) No. SSD-39971796 for the heritage conservation and adaptive reuse of the former Chief Mechanical Engineer's Building (CME Building) in North Eveleigh, which is submitted to the Minister for Planning pursuant to Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act).

Transport for NSW (Transport) is the proponent for the SSDA. SCT Consulting was engaged by Transport to carry out a Traffic, Transport and Accessibility Study for the adaptive reuse of the CME Building.

### *The vision of Paint Shop Sub-Precinct*

The Redfern North Eveleigh Paint Shop Sub-Precinct will be a connected centre for living, creativity and employment opportunities that support the jobs of the future, as well as provide an inclusive, active and sustainable place for everyone, where communities gather.

Next to one of the busiest train stations in NSW, the Sub-Precinct will comprise a dynamic mix of uses including housing, creative and office spaces, retail, local business, social enterprise and open space. Renewal will draw on the past, adaptively re-using heritage buildings in the Sub-Precinct and will acknowledge Redfern's existing character and particular significance to Aboriginal peoples, culture and communities across Australia. The Sub-Precinct will evolve as a local place contributing to a global context.

The transport objectives developed for the Paint Shop Sub-Precinct are:

1. Encourage and facilitate the increased uptake of sustainable modes (rail, walk and cycle) through improved integration, accessibility and permeability.
2. Minimise car-based impacts on surrounding area and network:
  - a. Reduction of vehicle trip generation from the North Eveleigh Concept Plan 2008 by at least 40%
  - b. Constrained parking provisions on-site (<10% of mode share)
3. Balance the on-street environment to provide:
  - a. Permeable, prioritised and safe environment for customers who walk or cycle
  - b. Sufficient on-street parking to support mobility-impaired customers, short-turnaround parking and on-demand services.
  - c. Activation of the street-level environment throughout the day.
  - d. Provision of dedicated spaces for freight and point-to-point.

### *The proposal*

The application seeks consent for the heritage conservation and adaptive reuse of the CME Building, which includes:

- Internal and external heritage conservation works to make the building suitable for adaptive reuse, including painting, repairs and refurbishment of the existing building (primarily internally) and installation of services to support future usage for offices or the like
- Building upgrades to ensure compliance with the Building Code of Australia, including accessibility and fire safety requirements
- Removal of any hazardous building materials
- Minor landscaping works.

No significant additions (except those necessary to facilitate suitable access and fire egress) or substantive demolition of external heritage fabric is envisaged as part of the project. Internal changes comprise the removal of some internal walls and alterations to building fabric to create suitable spaces and compliant paths of travel.

Given the limitation that the planning of the Paint Shop Sub-Precinct is in progress (subject to the approval of a separate planning approval), the toilet block at the back of the CME Building is subject to later stages of development and would not be demolished as part of the refurbishment project. This restricts the area available for any traffic to manoeuvre on-site and to perform forward-in and forward-out movements from and to Wilson Street respectively.

Hence, as an interim measure until the later stages of the Paint Shop Sub-Precinct is approved that permit the removal of the toilet block at the back of the CME Building, this project proposes:

- Zero car park provision on-site
- An on-street loading zone along Wilson Street frontage.

As there is no on-site parking provision, there will be no vehicular access required in the interim for the adaptive reuse of the CME Building. Hence the proposed on-street loading zone at Wilson Street immediate outside of the existing driveway will support loading and unloading for day-to-day deliveries, waste collection as well as a pick-up drop-off area for ride-share vehicles and taxis for any visitors to the CME Building. Under this arrangement, there will be no vehicles crossing the existing cycleway crossover with the existing driveway.

People who walk to the site will access the building via a new accessible ramp that connects the existing footpath at Wilson Street and the building entrance. People who ride to the site will access the bicycle parking facilities located at the back of the building via the new accessible ramp.

#### *Travel demand and associated impacts*

To align with the transport objectives developed for the Paint Shop Sub-Precinct and to take full advantage of the site's proximity to Redfern station and its current upgrade of the New Southern Concourse, while minimising the reliance on private vehicle trips, a set of aspirational mode share targets with a maximum 5 per cent private vehicle mode share for non-residential use has been developed in consultation with the City of Sydney.

**Table E-1** presents the proposed mode share targets for the Paint Shop Sub-Precinct and hence the mode share targets for the CME Building.

**Table E-1 Proposed mode share targets**

Mode	Mode share target	AM peak hour trips	PM Peak hour trips
Walk	20%	10	7
Cycle	10%	5	4
Rail	62%	31	22
Bus	3%	2	1
<i>Total non-vehicle</i>	<i>95%</i>	<i>48</i>	<i>34</i>
<i>Vehicle</i>	<i>5%</i>	<i>2</i>	<i>2</i>
<b>Total</b>	<b>100%</b>	<b>50</b>	<b>36</b>

Based on a person trip rate of 4.0 and 2.9 per 100 square metres of GFA for a commercial development during the AM and PM peak hour respectively, the proposed adaptive reuse of the CME Building would be expected to generate approximately 50 person trips in the AM peak hour and 36 person trips in the PM peak hour.

**Table E-1** also shows the number of trips per mode based on the proposed mode share targets, that are expected to be generated by the CME Building during the AM and PM peak hours. According to the mode share targets, most of the peak hour trips will be made by rail, with a total of 30 per cent of trips to be made by walking and cycling. Only up to 2 trips will be made by cars, which they are expected to arrive and leave the site via car share vehicles or taxis.

In summary, the proposed development is expected to have negligible impacts on the surrounding street network, on-street parking, public transport network as well as the footpaths and cycleways. Hence no mitigation measure is required to support this development.

#### *Preliminary construction traffic impacts*

The proposal is to refurbish and fit out the CME Building for commercial occupancy. The current program of works indicates that construction and fit-out works would commence in June 2023 for six months until November 2023. It is also intended that a tenant will occupy the office space from April 2024.

The proposed project office and lay-down area will be located south of the CME Building, adjacent to the existing service road (connecting to Little Eveleigh Street | Ivy Lane). As an alternative site office location for the contractor and design team, local shops may also be investigated for short-term rental.

The designated vehicular access point is the service road from Little Eveleigh Street | Ivy Lane. For this scale of the proposed refurbishment and fit-out works, it is not expected that a significant number of heavy vehicles would be



generated at this stage. Construction vehicles are expected to park within the Precinct served by the main service road.

Additionally, given the CBD location of the construction site, construction workers are not expected to drive and will be expected to arrive on-site via public transport or park within the Precinct.

Hence, the level of construction-related traffic is expected to be limited and is not expected to have any impacts on surrounding on-street parking. Hence, the impacts of the construction activities on the surrounding street network should be minor.

#### *Conclusion*

This report presents the Traffic and Transport Assessment of the proposed changes to, and the potential impacts that may result within and surrounding, the CME Building.

## 1.0 Introduction

This report supports State Significant Development (SSD) Development Application (DA) No. SSD-39971796 for the heritage conservation and adaptive reuse of the former Chief Mechanical Engineer's Building (CME Building) in North Eveleigh, which is submitted to the Minister for Planning pursuant to Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act).

Transport for NSW (Transport) is the proponent for the SSDA. SCT Consulting was engaged by Transport to carry out a Traffic, Transport and Accessibility Study for the adaptive reuse of the CME Building.

### 1.1 Background

#### 1.1.1 Site Description

The site comprises the former CME Building (**Figure 1-1**) and immediate surrounds (**Figure 1-2**). The site is identified as 505 Wilson Street, and forms part of Lot 5 in Deposited Plan 1175706.

Originally constructed in 1887 and subsequently extended to keep pace with the expansion of the NSW railways and demand for engineering services, the CME Building is of State heritage significance. The CME Building is listed on the NSW Heritage Register (SHR No. 5014147) and Transport for NSW's s170 Register. The statement of significance provided on the NSW Heritage Inventory outlines the significance of the site:

*The building is a very fine late Victorian railways office on a scale above all other such structures in the State. The building reflects the importance of the railway engineers in the development of the State and its closeness to the Eveleigh workshops (mainly under the control of the Mechanical Branch) indicates the confidence in railway construction. The building is in a style not often seen in Sydney and is a rare survivor. More often this form of building is in evidence in the country where the pressure of development is less. It is an important element in the town and streetscape of Wilson St, Redfern, particularly to close proximity to the railway workshops.*

**Figure 1-1 Chief Mechanical Engineer's Building (existing), viewed from Wilson Street**





Figure 1-2 Aerial showing the extent of works

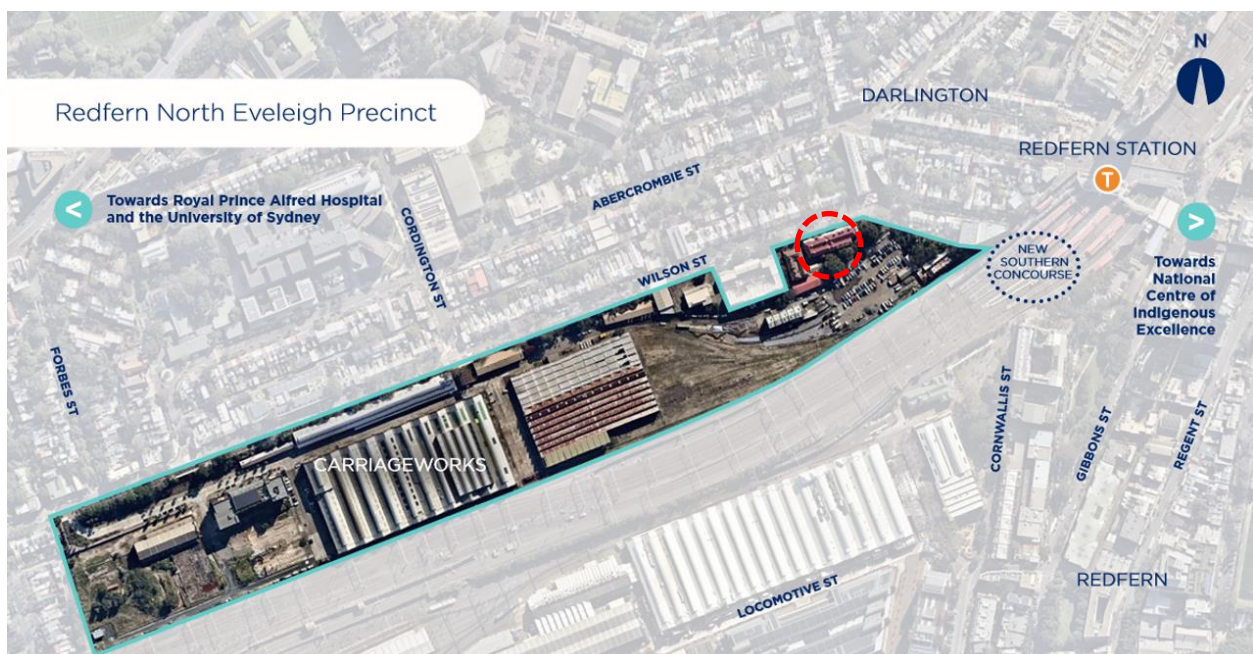


Source: Nearmap/Ethos Urban

The CME Building is located within the Redfern North Eveleigh Precinct (**Figure 1-3**). The Redfern North Eveleigh Precinct is located within the wider Redfern-Waterloo Authority Sites SSP. The Redfern North Eveleigh Precinct is 10 hectares of land owned by Transport Asset Holding Entity (TAHE) at the southern edge of Redfern Station, located between the rail corridor and Wilson Street.

The Redfern North Eveleigh Precinct, including the CME Building, is the subject of an approved Part 3A Concept Plan (MP08\_0015) which continues to apply to the land pursuant to Schedule 2 of Environmental Planning and Assessment (Savings, Transitional and Other Provisions) Regulation 2017. TfNSW is currently preparing an SSP Study for the Paint Shop Sub-Precinct within the wider Redfern North Eveleigh Precinct, which was exhibited between 26 July and 25 August 2022. It is noted that the SSP Study indicates that the Concept Approval would be surrendered should the rezoning of the Paint Shop Precinct occur.

Figure 1-3 Redfern North Eveleigh Precinct (CME Building outlined in red)



Source: Transport for New South Wales



### 1.1.2 Surrounding context

The NSW Government is investing in the renewal of the Redfern North Eveleigh Precinct (which includes the CME Building) to create a unique mixed-use development, located within the important heritage fabric of North Eveleigh. The strategic underpinning of this proposal arises from the Greater Sydney Region Plan and District Plan. These Plans focus on the integration of transport and land use planning, supporting the creation of jobs, housing and services to grow a strong and competitive Sydney.

The Redfern North Eveleigh Precinct is one of the most connected areas in Sydney, and will be a key location for Tech Central, planned to be Australia's biggest technology and innovation hub. Following the upgrading of Redfern station currently underway, the Precinct's renewal is aimed at creating a connected destination for living and working and an inclusive, active and sustainable place around the clock.

The Redfern North Eveleigh Precinct comprises three Sub-Precincts, each with its own distinct character:

- The Paint Shop Sub-Precinct which is the subject of a separate planning approval
  - The Chief Mechanical Engineer's (CME) Building resides within this sub-precinct and is the subject of this State Significant Development Application (SSDA)
- The Carriageworks Sub-Precinct, reflecting the cultural heart of the Precinct where current uses will be retained
- The Clothing Store Sub-Precinct is unchanged from the previous planning approval.

The Paint Shop Sub-Precinct in the context of the Redfern North Eveleigh SSP is shown in **Figure 1-4**.

**Figure 1-4 Location of Redfern North Eveleigh SSP and Paint Shop Sub-Precinct**



Source: Transport for NSW, 2021

Transport is also undertaking a program of works within the area, associated with this Precinct renewal:

- Stage 1 Redfern station upgrade - New Southern Concourse: the provision of easy access to platforms 1 to 10 via a new overpass, stairs and lifts. Improves connections between the station and key destinations in the area, which is currently underway.
- Stage 2 T4 Eastern Suburbs & Illawarra Line Development site: investigation to provide access to underground platforms 11 and 12 through divestment of land above the T4 Eastern Suburbs & Illawarra Line.
- Stage 3 Redfern North Eveleigh Precinct Renewal: about 10 hectares located immediately southwest of Redfern station, comprising the former Eveleigh Railway Yards and the subject of this Strategic Vision.

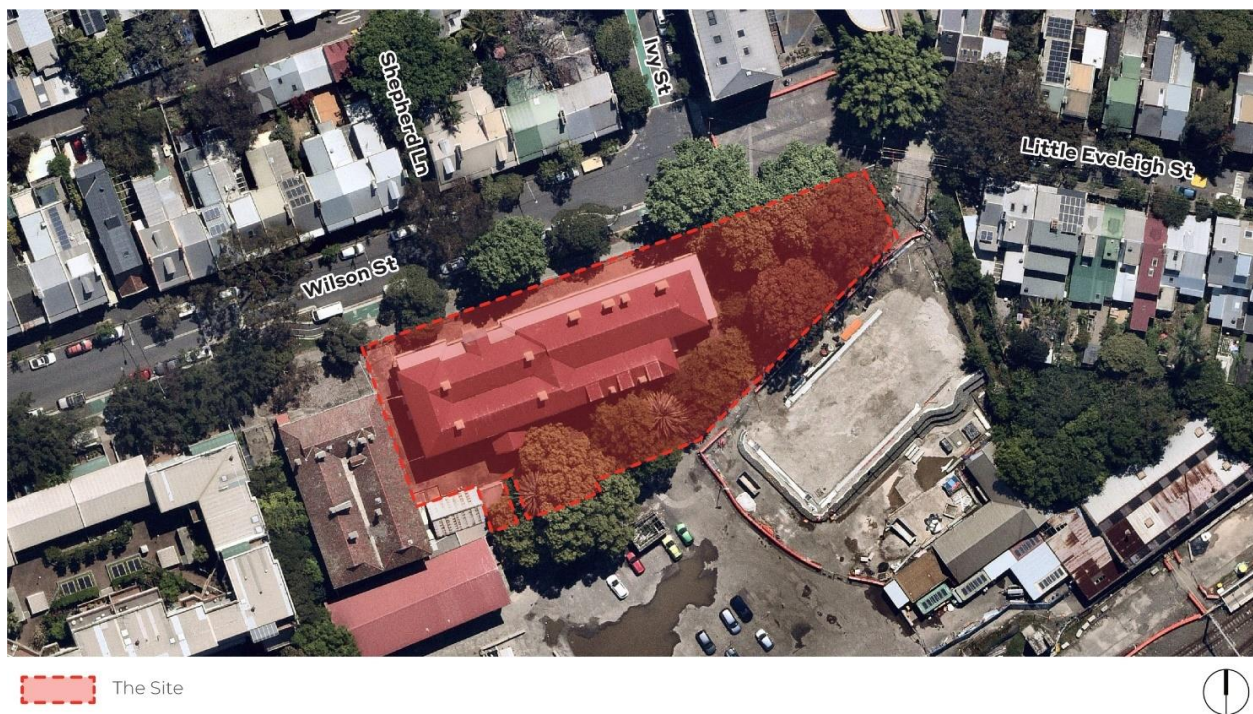
Alongside Redfern North Eveleigh, Transport is delivering the Central Precinct Renewal, a major urban renewal program in Australia's busiest transport interchange. On the western fringe of Central Precinct will be the headquarters of Australia's largest tech company, Atlassian.

Together, the Renewal projects will revitalise 34 hectares of the city (24 hectares at Central Precinct and 10 hectares at Redfern North Eveleigh), creating a significant investment and one of the biggest government-led urban renewal projects in Australia.

## 1.2 Overview of proposed development

Transport is preparing a State Significant Development (SSD) for the refurbishment of the Chief Mechanical Engineer's (CME) Building, located at 505 Wilson Street Eveleigh, within the Paint Shop Sub-Precinct as part of the Redfern North Eveleigh State Significant Precinct (SSP). The indicative extent of the works is highlighted in **Figure 1-5**.

**Figure 1-5 CME Building site context**



Source: Nearthmap/Ethos Urban

The application seeks consent for the heritage conservation and adaptive reuse of the CME Building, which includes:

- Internal and external heritage conservation works to make the building suitable for adaptive reuse, including painting, repairs and refurbishment of the existing building (primarily internally) and installation of services to support future usage for offices or the like
- Building upgrades to ensure compliance with the Building Code of Australia, including accessibility and fire safety requirements
- Removal of any hazardous building materials
- Minor landscaping works.

No significant additions (except those necessary to facilitate suitable access and fire egress) or substantive demolition of external heritage fabric is envisaged as part of the project. Internal changes comprise the removal of some internal walls and alterations to building fabric to create suitable spaces and compliant paths of travel.



### 1.3 Purpose of this study

The Department of Planning and Environment has issued Secretary's Environmental Assessment Requirements (SEARs) to the applicant for the preparation of an Environmental Impact Statement for the proposed development.

The purpose of this report is to prepare a Traffic, Transport and Accessibility Study of the proposed changes and consider any potential impacts that may result within and surrounding the CME Building. This report addresses Study Requirement 10. Traffic, Transport and Accessibility of the SEARs (dated 1 April 2022).

The relevant study requirements, considerations and consultation requirements, and the location of where these have been responded to are outlined in **Table 1-1**.

**Table 1-1 Study requirements, considerations, and consultation requirements**

Ref	Study requirements	Relevant section(s) of this report
10	Provide a transport and accessibility impact assessment, which includes:	
	– an analysis of the existing transport network, including the road hierarchy and any pedestrian, bicycle or public transport infrastructure, current daily and peak hour vehicle movements, and existing performance levels of nearby intersections.	Section 3.0
	– details of the proposed development, including pedestrian and vehicular access arrangements (including swept path analysis of the largest vehicle and height clearances), parking arrangements and rates (including bicycle and end-of-trip facilities), drop-off/pick-up-zone(s) and bus bays (if applicable), and provisions for servicing and loading/unloading.	Section 4.0
	– analysis of the impacts of the proposed development (including justification for the methodology used), including predicted modal split, a forecast of additional daily and peak hour multimodal network flows as a result of the development (using industry standard modelling), identification of potential traffic impacts on road capacity, intersection performance and road safety (including pedestrian and cyclist conflict) and any cumulative impact from surrounding approved developments.	Section 4.4 Section 5.0
	– measures to mitigate any traffic impacts, including details of any new or upgraded infrastructure to achieve acceptable performance and safety, and the timing, viability and mechanisms of delivery (including proposed arrangements with local councils or government agencies) of any infrastructure improvements in accordance with relevant standards.	Section 5.6
	– proposals to promote sustainable travel choices for employees, residents, guests and visitors, such as connections into existing walking and cycling networks, minimising car parking provision, encouraging car share and public transport, providing adequate bicycle parking and high quality end-of-trip facilities, and implementing a Green Travel Plan.	Section 4.5
	Provide a Construction Traffic Management Plan detailing predicted construction vehicle movements, routes, access and parking arrangements, coordination with other construction occurring in the area, and how impacts on existing traffic, pedestrian and bicycle networks would be managed and mitigated.	Section 6.0

## 1.4 Report structure

This report has been structured as follows:

- **Section 2** considers the relevant transport planning context.
- **Section 3** describes the existing transport conditions for all modes of transport.
- **Section 4** presents the proposed development and its access strategy, as well as the parking requirements and the likely trip generation as a result of the proposed development.
- **Section 5** discusses the likely operational impacts for all transport modes and parking as a result of the proposed development.
- **Section 6** outlines the preliminary construction traffic and pedestrian management plan.
- **Section 7** summarises the report's content and presents the conclusions.

## 2.0 Transport policy and planning context

A review of regional and local strategic documents was undertaken to identify relevant implications for the Paint-Shop Sub-Precinct and more specifically the CME Building. This section provides a summary of the key transport policy and planning context relevant to traffic and transport infrastructure and services to support the proposal.

The review covered:

- Key regional and district strategies
- Key precinct and local strategies
- City of Sydney Development Control Plan 2012
- Redfern North Eveleigh Precinct Vision and Principles
- Paint Shop Sub-Precinct Vision and Transport Objectives.

### 2.1 Key regional / district strategies

The regional / district strategy documents reviewed, along with the implications for the Paint-Shop Sub-Precinct and more specifically the CME Building, are summarised in **Table 2-1**. Some of the strategic transport objectives from these documents include:

- The development of a three-city metropolis for Greater Sydney by investing in transport infrastructure that provides high frequency and high-volume access to, and connectivity between, each of the three cities, while enhancing the local amenity.
- Investment in transport infrastructure that is integrated with land use to create opportunities for agglomeration and enhance productivity, liveability and accessibility, in support of the policy goal of a '30-minute city'.
- Further development of the Sydney rail network with new rail links and system-wide upgrades.
- Development of extensive on-road rapid transit networks and active transport links to support the mass transit system.
- The development of regional hubs by enhancing their accessibility and connectivity via major north-south and east-west links.
- Encouragement of travel patterns that are tailored to the capacity of the network and help to manage congestion with mobility pricing reform and demand management initiatives.
- Re-allocation of road space in key commuter corridors to give priority to the most productive and sustainable transport modes, improve the integration of services across modes, remove network bottlenecks and upgrade operational systems and infrastructure.

**Table 2-1 Summary of regional / district strategy implications**

Regional / district strategy	Implications for the CME Building
Greater Sydney Regional Plan: A Metropolis of Three Cities	<p>The Eastern Economic Corridor from Macquarie Park to Sydney Airport, within which the Sub-Precinct is located, is the State's largest economic asset – contributing two-thirds of NSW's economic growth in the 2015-16 financial year. The corridor has strong financial, professional, health, education and innovation sectors.</p> <p>The Eastern Harbour City has significant rail projects underway aimed at increasing its global competitiveness, boosting business-to-business connections and attracting skilled workers with faster commuting times. Sydney Metro City &amp; Southwest will connect to Chatswood and Sydenham-Bankstown, while Sydney Metro West will provide faster and more frequent trips to and from Greater Parramatta.</p>



Regional / district strategy	Implications for the CME Building
State Infrastructure Strategy (SIS) 2018-2038	<p>For the Eastern Harbour City, the SIS aims to improve access to international gateways, mass transit connections to the CBD (especially from the west and southeast), active transport, cultural infrastructure and provide more educational learning spaces. The SIS recognises that urban renewal will occur to the south and west of the city – in the Central to Eveleigh Precinct, within which the Paint Shop Sub-Precinct is located – and The Bays Precinct.</p>
Eastern City District Plan	<p>The Eastern City District Plan is a 20-year plan to manage growth in the context of economic, social and environmental matters to achieve the 40-year vision for Greater Sydney. It contains the planning priorities and actions for implementing the Greater Sydney Region Plan.</p> <p>The Plan directs the Camperdown–Ultimo Collaboration Area to upgrade the public domain with place-making initiatives, and improve transport, walking and cycling connections between key hubs, particularly in response to student and job growth.</p>
Future Transport Strategy 2056	<p>Future Transport 2056 is a 40-year strategy, supported by plans for regional NSW and for Greater Sydney. The vision for Greater Sydney, where people can access the majority of jobs and services within 30 minutes, will require a sustained and staged investment program to protect corridors and then develop an integrated transport system that includes city-shaping, city-serving, centre-serving and strategic freight networks.</p> <p>The transport networks are proposed to expand to provide improved access to each metropolitan centre, including the safe and reliable movement of freight. These networks will be progressively developed through a range of infrastructure investments that will make key improvements to the city-shaping and road networks as well as upgrade local roads, walking and bicycle paths, as detailed in the Greater Sydney Services and Infrastructure Plan.</p>
Greater Sydney Services and Infrastructure Plan	<p>Building on the transport outcomes identified in 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 defines the network required to achieve the service outcomes.</p>
Better Placed: Aligning Movement and Place	<p>This outline introduces the Movement and Place Framework and sets out a better approach to aligning movement and place in the design, planning, construction and operation of NSW's overall transport network.</p> <p>The plan aims to facilitate and encourage sustainable transport modes including walking, cycling and public transport and minimising the space dedicated to vehicle movement</p>
Practitioners Guide to Movement and Place	<p>This guide provides practitioners with a collaborative, iterative process that can guide consultation, analysis, decision-making, and evaluation throughout the life cycle of a plan or project. It details the importance of considering the whole street, which includes people walking and cycling, as well as people spending time in places.</p>
Road User Allocation Policy	<p>By implementing this Policy, Transport ensures that the allocation of road user space is a deliberate exercise that considers the place, function and movement requirements of roads to achieve the strategic intent and outcomes as set out in state-wide, metropolitan and regional strategies and plans.</p> <p>An action that assists in achieving these objectives is to optimise how space is allocated throughout the day, week or year, including the dynamic control of space, access, level of priority, speed and kerbside use through signage, signals, and other technology.</p> <p>It also notes that when allocating road user space based on the network vision and road functions, we should consider all road users in order of: walking (including equitable access for people of all abilities); cycling (including larger legal micro-mobility devices); public transport; freight and deliveries; and point to point transport ahead of general traffic and on-street parking for private motorised vehicles.</p>

## 2.2 Key precinct / local strategies

The precinct / local strategy documents reviewed, along with the implications for the Paint-Shop Sub-Precinct and more specifically the CME Building, are summarised in **Table 2-2**. Some of the transport implications from these documents include:

- Within the Central to Eveleigh corridor, the NSW Government has committed to creating a globally competitive innovation and technology precinct. Top priorities for the Central to Eveleigh Urban Transformation Strategy include the upgrade of Central Station and improvements to Redfern station, which are currently underway. The transformation efforts will provide a platform for better physical connections across the rail corridor, better collaboration between industry and higher education, and greener, more walkable neighbourhoods.
- The Precinct will support innovation, collaboration and jobs for the future as part of the NSW government's commitment to facilitate a technology hub at Tech Central. Stretching from Central Station to Camperdown, Tech Central will house start-ups, scale-ups and innovation ecosystem partners. Tech Central will also create great public spaces improving walking and cycling connections as part of urban renewal projects in the Precinct.
- The site is served by major city-shaping assets including the heavy rail system, with Central and Redfern transport interchanges serving the T1 North Shore & Western Lines, T2 Inner West & Leppington Line, T3 Bankstown Line, T4 Eastern Suburbs & Illawarra Line and T8 Airport & South Line; and Central Station serving existing and new light rail services and the proposed Sydney Metro City & Southwest line.
- Transport is undertaking a program of works within North Eveleigh, associated with this Precinct renewal:
  - Stage 1 Redfern station Upgrade - New Southern Concourse: the provision of easy access to platforms 1 to 10 via new stairs and lifts, improving connections between the station and key destinations in the area. This is currently underway.
  - Stage 2 T4 Eastern Suburbs & Illawarra Line Development site: investigation to provide access to underground platforms 11 and 12 through divestment of land above the T4 Eastern Suburbs & Illawarra Line
  - Stage 3 Redfern North Eveleigh Precinct Renewal: About 10 hectares located immediately south-west of Redfern station, comprising the former Eveleigh Railway Yards and the subject of this Strategic Vision
- Transport is focused on completing key missing links in the bicycle network within 10 kilometres of metropolitan centres and establishing the Principal Bicycle Network (PBN).
- The Sustainable Sydney 2030 and Community Strategic Plan has set a target of increasing trips to work using public transport by 80 per cent for both residents of the city and those travelling to the city from elsewhere.
- The Disability Action Plan aims to review the current provision of mobility parking spaces in the City of Sydney and develop strategies to maximise the access and inclusion outcomes associated with mobility parking. It also intends to continue to provide information about the locations of mobility parking spaces in the City and include additional information about their features.
- The City of Sydney Cycling Strategy and Action Plan 2018-2030 outlines actions include completing the 11 regional bike routes and the local bike network, as well as improving the safety and access within the precinct.
- Similarly, the City of Sydney Walking Strategy and Action Plan 2015-2030 sets various short-, medium- and long-term actions to improve overall walkability and pedestrian priority.

**Table 2-2 Summary of precinct / local strategy implications**

Precinct / local strategy	Implications for the CME Building
Central to Eveleigh Urban Transformation Strategy	<p>The Strategy demonstrates the contribution that the urban transformation of government-owned land can make to realising public benefit in the Central to Eveleigh area.</p> <p>The top priorities for the Strategy are the upgrade of Central Station and potential improvements to Redfern station (currently underway). The transformation efforts will provide a platform for better physical connections across the rail corridor, better collaboration between industry and higher education, and greener, more walkable neighbourhoods. Particularly, North Eveleigh could provide new homes close to community facilities and cultural, education and work opportunities while retaining its important role in the operation of the rail network.</p>

Precinct / local strategy	Implications for the CME Building
Tech Central	Tech Central is an innovation and technology precinct that has investment from the NSW Government to provide up to 250,000 square metres of affordable space for start-ups and scale-ups to provide the building blocks for the creation of the biggest technology hub in Australia. The Tech Central Precinct encompasses the Redfern North Eveleigh Precinct, including the Paint Shop Sub-Precinct.
Collaboration Area Camperdown-Ultimo Place Strategy	<p>The Camperdown–Ultimo Collaboration Area stretches from Camperdown to Ultimo and covers Darlington and Eveleigh, most of Haymarket, Ultimo and Camperdown and parts of Glebe, Forest Lodge, Newtown, Redfern and Surry Hills. The Strategy defines the collaboration area as Australia's innovation and technology capital by 2036. It provides accessible public transport, walking and cycling to guide growth and change.</p> <p>Additionally, Transport is focused on completing key missing links in the bicycle network within 10 kilometres of metropolitan centres and establishing the Principal Bicycle Network</p>
City Plan 2036: Local Strategic Planning Statement	This Local Strategic Planning Statement reinforces the links between the NSW Government's strategic plans and the City's community strategic plan, Sustainable Sydney 2030, and the planning controls that guide development in the city. It recognises that Redfern is part of the Innovation Corridor and acknowledges that the area has experienced strong employment growth and will continue to do so.
Sustainable Sydney 2030 and Community Strategic Plan	Sustainable Sydney 2030 expresses the community's vision to plan a green, global and connected city. This strategy sets a target of increasing trips to work using public transport by 80 per cent, for both residents of the city and those travelling to the city from elsewhere. It also aims to allow at least 10 per cent of total trips to be cycling and 50 per cent by pedestrian movement. The plan emphasises the importance of providing enough footpath space for people to walk comfortably and intersections that function efficiently for all users.
A City for All Inclusion (Disability) Action Plan 2017-2021 (City of Sydney)	This plan includes a series of actions designed to actively address barriers faced by people with disability in all age groups. The plan aims to review the current provision of mobility parking spaces in the City of Sydney and develop strategies to maximise the access and inclusion outcomes associated with mobility parking. It also intends to continue to provide information about the locations of mobility parking spaces in the City and include additional information about their features.
Central Sydney Planning Framework 2016 – 2036 (City of Sydney)	<p>The Framework is a growth strategy that revises several previous planning controls and aims to deliver on the Sustainable Sydney 2030 program for a green, global and connected city.</p> <p>The Framework outlines 10 key moves and aims to balance the opportunities for development to meet the demand of population growth to 2036 and beyond with the changing needs of workers, residents and visitors. The key changes seek to facilitate amendments to controls that govern additional height and density in suitable locations, and broadly opportunities to unlock additional capacity for economic and employment growth, as well as ensuring that new development achieves design excellence.</p>
Connecting Our City: Transport Strategy and Action Plan (City of Sydney)	The Transport Strategy and Action Plan is a framework for action by the Council and Government to improve transport and access to better connect our City. Following the Sustainable Sydney 2030, this plan addresses concerns related to transport and access. Concerning the Precinct, the plan proposes that the NSW Government examines the options for a new rail station at Waterloo on the Green Square line, to provide improved access to the Redfern-Waterloo Development and the Australian Technology Park at Redfern.
City of Sydney Cycling Strategy and Action Plan 2018-2030	The City of Sydney Cycling Strategy and Action Plan proposes the next steps for integrating Sydney's cycling network. It outlines actions that include completing the 11 regional bike routes and the local bike network, as well as improving the safety and access within the Central to Eveleigh Precinct.

Precinct / local strategy	Implications for the CME Building
City of Sydney Walking Strategy and Action Plan 2015-2030	The City of Sydney supports walking as a mode of transport to meet the environmental, economic and social objectives set in Sustainable Sydney 2030 and Connecting Our City. This strategy includes targets based on a review of trends and forecasts and sets various short-, medium- and long-term actions to improve overall walkability and pedestrian priority
Legible Sydney – Wayfinding Strategy	The overall objective of this Strategy is to develop a Wayfinding System that allows the delivery of a more legible public domain that encourages people to walk with comfort and confidence around the City of Sydney.
The Healthy Liveable Communities Urban Liveability Checklist	The Urban Liveability Checklist is a tool for use in established or proposed urban areas to assess liveability and opportunities to improve health and wellbeing. The major transport-related domains listed in the document include walkability and public transport.
Heart Foundation Healthy Active by Design	The Heart Foundation defines a neighbourhood on the move as one that has a network of integrated walking, cycling and public transport routes. Movement networks within a neighbourhood, and connecting to other neighbourhoods, need to be accessible, safe and cohesive.

## 2.3 City of Sydney Development Control Plan 2012

The purpose of this Development Control Plan (DCP) is to supplement the Sydney LEP 2012 and provide more detailed provisions to guide development. This DCP has been made in accordance with Section 74C of the Environmental Planning & Assessment Act 1979 (the Act) and must be read in conjunction with the provisions of Sydney LEP 2012.

Section 3 of the plan addresses the transport and parking components of the plan. Some of the key objectives include:

- Ensure that the demand for transport generated by development is managed in a sustainable manner.
- Ensure that bike parking is considered in all development and provided in appropriately scaled developments with facilities, such as change rooms, showers and secure areas for bike parking.
- Establish requirements for car share schemes for the benefit of people living and or working within a development.
- Design vehicle access and basement layouts and levels to maximise pedestrian safety and create high-quality ground level relationships between the building and the public domain.
- Provide accessible car parking.

Schedule 7 Transport, parking and access of the DCP contains information on how to prepare reports required by the DCP, including Transport Impact Studies, Parking and Access Reports, Green Travel Plans and Transport Access Guides. Other relevant items include:

- Active frontages have been identified along the intersection of Abercrombie Street and Lawson Street and along parts of King Street and Regent Street.
- The maximum height for buildings in the surrounding regions ranges from 2 to 10 storeys, although Council has indicated at a recent Council meeting that they wish to increase heights.
- There are no nearby late-night trading areas identified in the region.

Overall, the DCP aims to provide streets that prioritise pedestrians, cycling and transit use. Footpaths are to be designed per the Sydney Streets Design code to allow pedestrians to move comfortably and safely. The provision of cycleways is to be consistent with the locations identified in the Cycle Strategy and Action Plan 2007-2017.

## 2.4 Redfern North Eveleigh Precinct Vision and Principles

The Redfern North Eveleigh Strategic Vision was prepared by Transport in 2021 and was the first part of the new strategic planning process for the Precinct's renewal. The Vision was developed to:

- Set the vision, key strategic planning and urban design considerations for the Precinct
- Understand and reflect the unique character of the Precinct
- Identify priorities and principles to guide the renewal
- Provide flexibility in the development approach to accommodate changing needs and technology and to account for the renewal evolving.

The preparation of the Vision was informed by:

- Feedback from stakeholder and community engagement were undertaken throughout 2020 and from previous planning processes in the area
- Analysis of previous investigations undertaken for the Precinct before Transport taking the lead on the project as well as relevant state and local government strategic planning policies
- Site and design analysis to understand Redfern North Eveleigh and its surrounds
- Design input, including the State Design Review Panel led by Government Architect NSW.

The Vision is:

*The Redfern North Eveleigh Precinct will be a connected centre for living, creativity and employment opportunities that support the jobs of the future. An inclusive, active and sustainable place for everyone, where communities gather.*

*Next to one of the busiest train stations in NSW, the Precinct will comprise a dynamic mix of uses including housing, creative and office spaces, retail, local business, social enterprise and open space. Renewal will draw on the past, adaptively re-using heritage buildings in the Precinct and will acknowledge Redfern's existing character and particular significance to Aboriginal peoples, culture and communities across Australia. The Precinct will evolve as a local place contributing to a global context.*

To enable the vision for the Precinct, the following principles were developed, grouped into six key themes:

1. Great place for community
2. Jobs for the future
3. Creative
4. Aboriginal past, present and future
5. Culture and history
6. Connected people and places.

The Precinct is centrally located close to Redfern station, Macdonaldtown station, the Royal Prince Alfred Hospital, Sydney University, the University of Technology, Sydney, South Eveleigh and within the broader Tech Central – an NSW Government commitment to create the biggest innovation and technology hub in Australia.

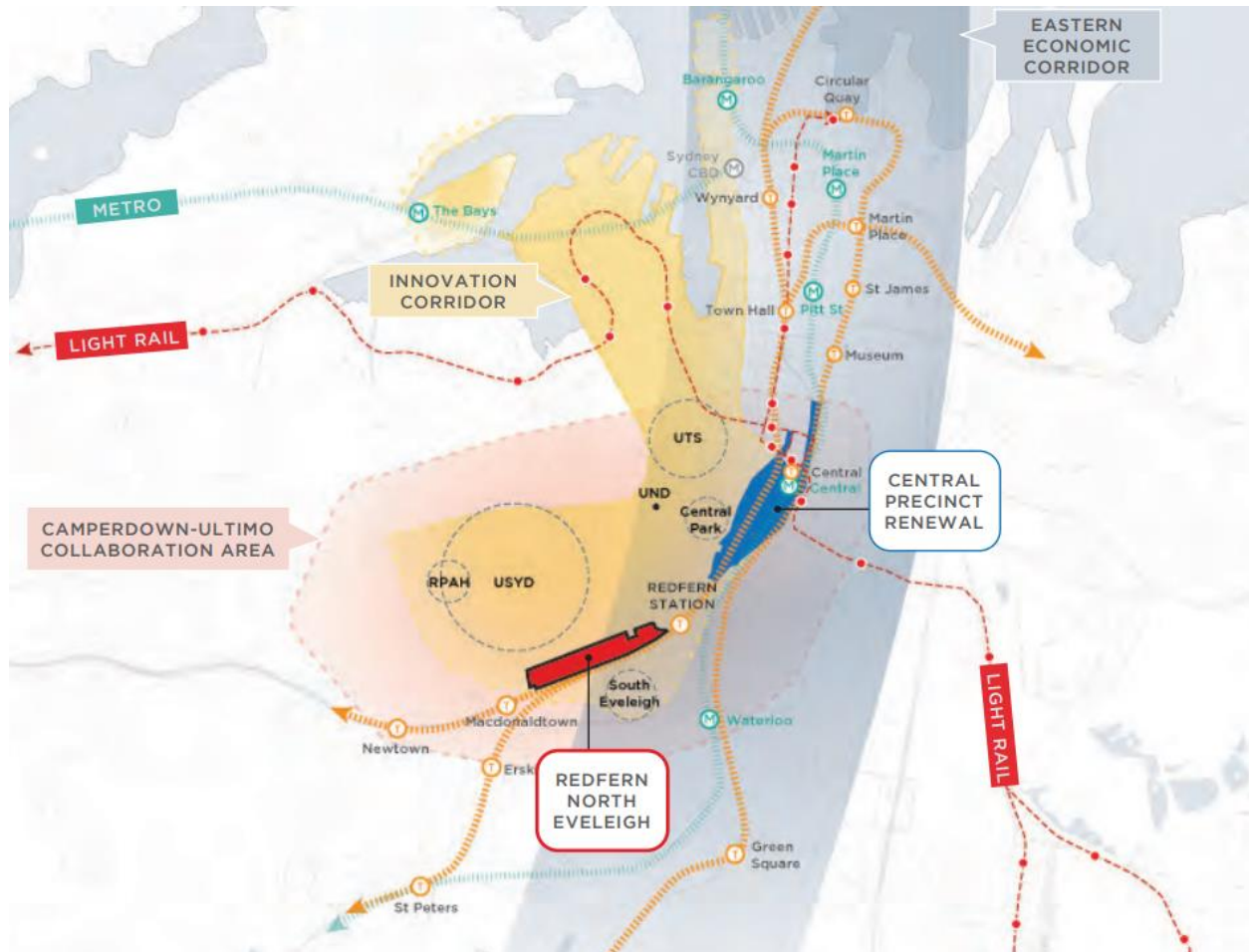
Alongside Redfern North Eveleigh, Transport is delivering the Central Precinct Renewal, a major urban renewal program in Australia's busiest transport interchange – Sydney's Central Station.

To maximise the Precinct's connections, the Vision states a set of priorities including providing a direct link from the Precinct to the New Southern Concourse at Redfern station, walking and cycling connections to and through the Precinct, and the feasibility of a second pedestrian rail crossing via a bridge or the reuse of tunnels between North Eveleigh and South Eveleigh. The location of the Redfern North Eveleigh precinct and the surrounding rail network is illustrated in **Figure 2-1**.

The Vision and Principles will guide future development on the site and inform key considerations in the assessment of future proposals, including the Paint Shop Sub-Precinct.



Figure 2-1 Location of Redfern North Eveleigh Precinct and the surrounding rail network



Source: NSW Government 2021

## 2.5 Paint Shop Sub-Precinct Vision and Transport Objectives

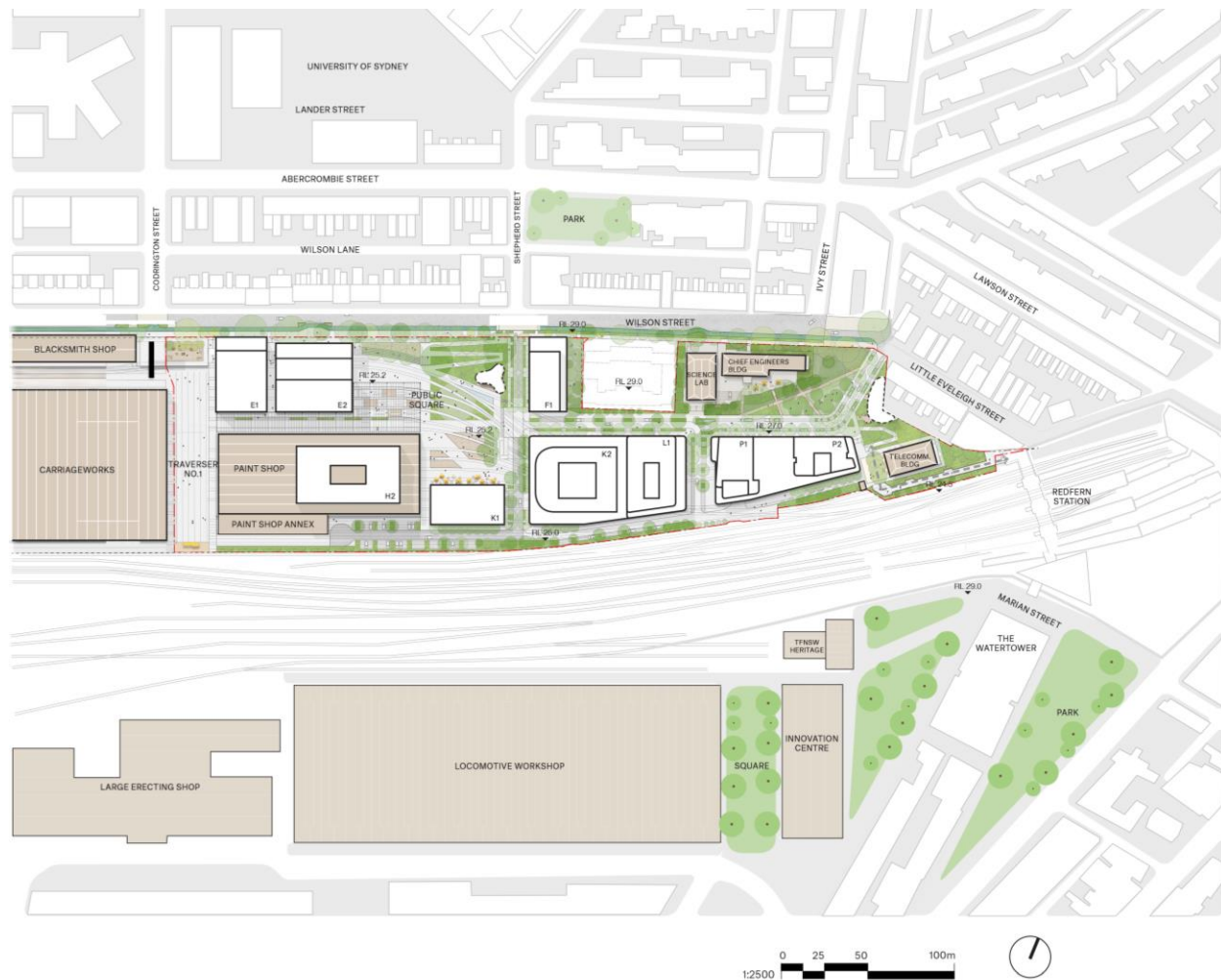
The Redfern North Eveleigh Paint Shop Sub-Precinct will be a connected centre for living, creativity and employment opportunities that support the jobs of the future, as well as provide an inclusive, active and sustainable place for everyone, where communities gather.

Next to one of the busiest train stations in NSW, the Sub-Precinct will comprise a dynamic mix of uses including housing, creative and office spaces, retail, local business, social enterprise and open space. Renewal will draw on the past, adaptively re-using heritage buildings in the Sub-Precinct and will acknowledge Redfern's existing character and particular significance to Aboriginal peoples, culture and communities across Australia. The Sub-Precinct will evolve as a local place contributing to a global context.

An Urban Design and Public Domain Study has been prepared to establish the urban design framework for the Redfern North Eveleigh Paint Shop Sub-Precinct. The Urban Design and Public Domain Study provides a comprehensive urban design vision and strategy to guide the future development of the Sub-Precinct and has informed the proposed planning framework of the SSP Study.

The proposed land allocation for the Paint Shop Sub-Precinct is described in **Table 2-3**, while the Indicative Concept Proposal for the Paint Shop Sub-Precinct is illustrated in **Figure 2-2**.

Figure 2-2 Indicative Concept Proposal



Source: Bates Smart, 2022

Table 2-3 Breakdown of allocation of land within the Paint Shop Sub-Precinct

Land allocation	Existing	Proposed
Developed area	15,723 sqm / 30% of total site area	20,824 sqm / 40% of total site area
Public open space	Area not publicly accessible	14,306 sqm / 28% of total site area
Other public domain areas (including streets, shared zones, pedestrian paths and vehicular zones)	Area not publicly accessible	15,149 sqm / 29% of total site area (Excludes privately accessible public links and private spaces ~ 3% of total site area)

The transport objectives developed for the Paint Shop Sub-Precinct are:

1. Encourage and facilitate the increased uptake of sustainable modes (rail, walk and cycle) through improved integration, accessibility and permeability.
2. Minimise car-based impacts on surrounding area and network:
  - a. Reduction of vehicle trip generation from the North Eveleigh Concept Plan 2008 by at least 40%
  - b. Constrained parking provisions on-site (<10% of mode share)
3. Balance the on-street environment to provide:
  - a. Permeable, prioritised and safe environment for customers who walk or cycle
  - b. Sufficient on-street parking to support mobility-impaired customers, short-turnaround parking and on-demand services.
  - c. Activation of the street-level environment throughout the day.
  - d. Provision of dedicated spaces for freight and point-to-point.

To align with these transport objectives and to take full advantage of the site's proximity to Redfern station and its current upgrade of the Southern Concourse, while minimising the reliance on private vehicle trips, a set of aspirational mode share targets with a maximum 5 per cent private vehicle mode share for non-residential use has been developed in consultation with the City of Sydney.

To support the aspirational mode share targets and the objective to achieve a maximum 5 per cent private vehicle mode share target, it is the intent to constrain the car parking provision rate for the Sub-Precinct at a rate of 1 space per 700 square metres of GFA for any non-residential car parking spaces (including disabled and car share) to be provided.



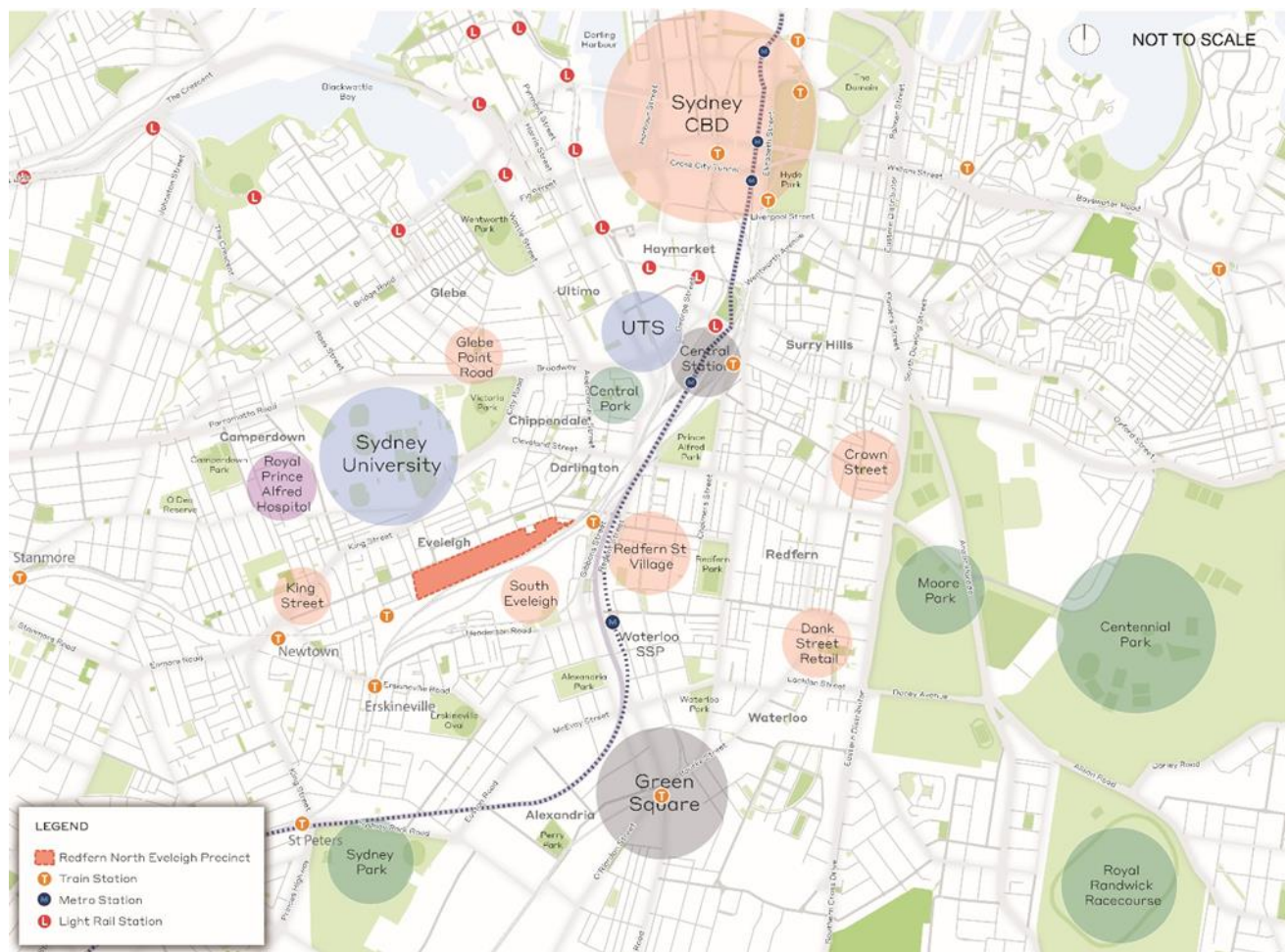
## 3.0 Existing transport conditions

### 3.1 Site context

#### 3.1.1 Redfern North Eveleigh Precinct

The Redfern North Eveleigh Precinct (The Precinct) is located about 3km south-west of the Sydney CBD in the suburb of Eveleigh (refer to **Figure 3-1**). It is located entirely within the City of Sydney local government area (LGA) on government-owned land. The Precinct has an approximate gross site area of 10.95 hectares and comprises land bounded by Wilson Street and residential uses to the north, an active railway corridor to the south, residential uses and Macdonaldtown station to the west, and Redfern station located immediately to the east of the Precinct. The Precinct is also centrally located close to well-known destinations including Sydney University, Victoria Park, Royal Prince Alfred Hospital, the University of Technology, Sydney and South Eveleigh, forming part of the broader Tech Central District.

**Figure 3-1 Location of Redfern North Eveleigh Precinct**

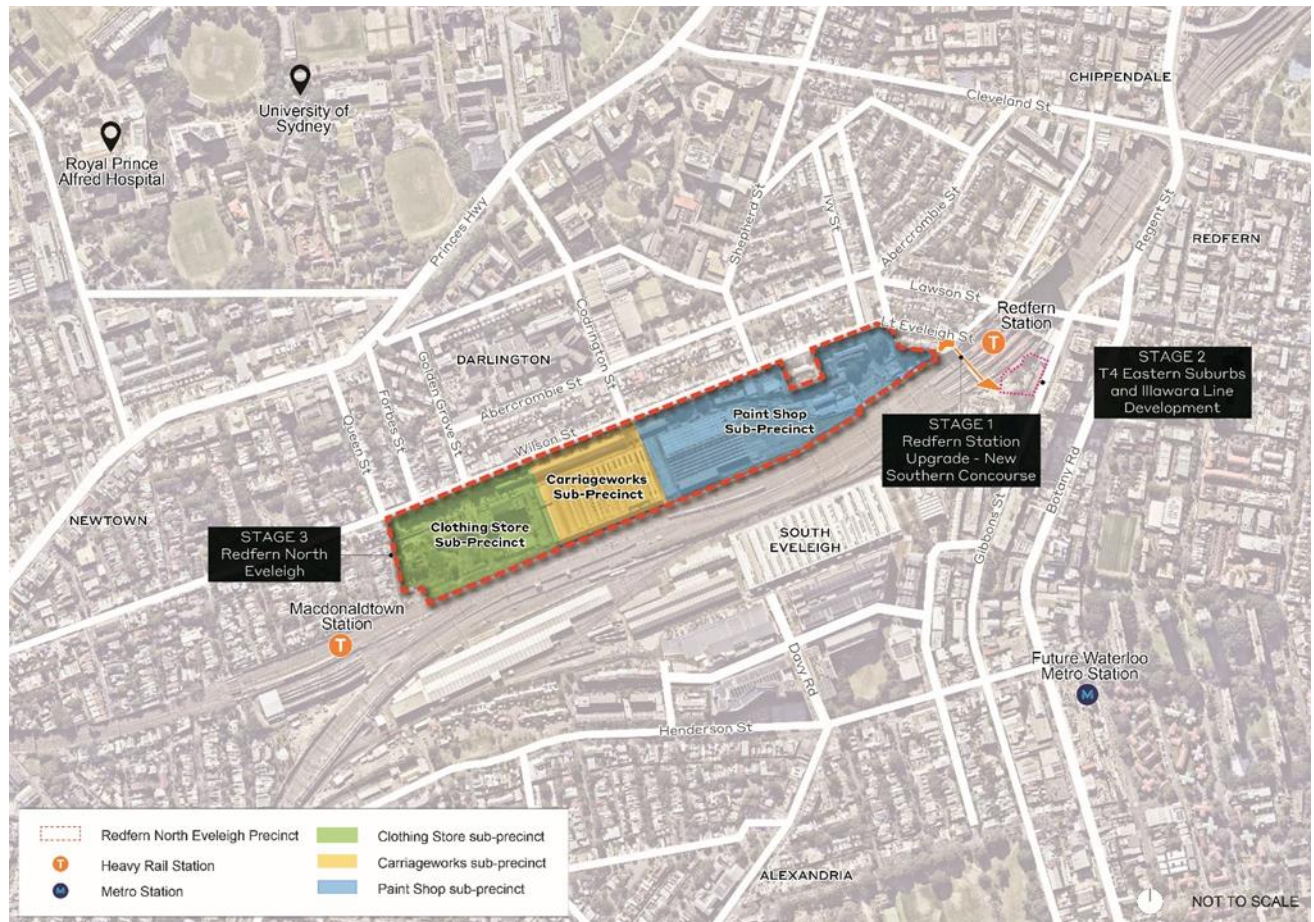


Source: Ethos Urban, 2021

The Precinct is located within the State Heritage-listed curtilage of Eveleigh Railway Workshops and currently comprises the Platform Apartments with 88 private dwellings, Sydney Trains infrastructure and key state heritage buildings including the Paint Shop, Chief Mechanical Engineer's (CME) Building, and the Carriageworks and Blacksmith Shop which provide shared community spaces for events including the Carriageworks Farmers Markets.

A map of the Precinct and the three Sub-Precincts is illustrated in **Figure 3-2**.

Figure 3-2 Redfern North Eveleigh Sub-Precincts



Source: Ethos Urban, 2021

### 3.1.2 The Paint Shop Sub-Precinct

The Redfern North Eveleigh Paint Shop Sub-Precinct is approximately 5.15 hectares and is bounded by Wilson Street to the north, residential terraces and Redfern station to the east, the Western Line rail corridor to the south and the Carriageworks Sub-Precinct to the west. The Sub-Precinct has a significant level change from a Reduced Level (RL) height of RL25 metres to RL29 metres on Wilson Street.

The Paint Shop Sub-Precinct currently hosts several items of heritage significance, including the Paint Shop Building, Fan of Tracks, Science Lab Building, Telecommunications Building, and the CME Building. The Sub-Precinct has some disused spaces adjacent to the rail corridor as well as functioning Sydney Trains' infrastructure, offices and operational space. Vehicle and pedestrian access to this area is used by Sydney Trains. The site has a clear visual relationship to South Eveleigh and the Eveleigh Locomotive Workshops across the active rail corridor.

### 3.1.3 The Chief Mechanical Engineer's Building

The Chief Mechanical Engineer's (CME) Building is located at 505 Wilson Street, at the northeastern end of the Paint Shop Sub-Precinct. The location of the CME Building is shown in **Figure 3-3**.

It is located within 200m walking distance (less than a 2-minute walk) from the New Southern Concourse of Redfern Station (when completed) via Little Eveleigh Street which is also being transformed into a shared street to improve pedestrian and cyclist travel between Redfern station and the Precinct as well as the University of Sydney.



Figure 3-3 Location of CME Building

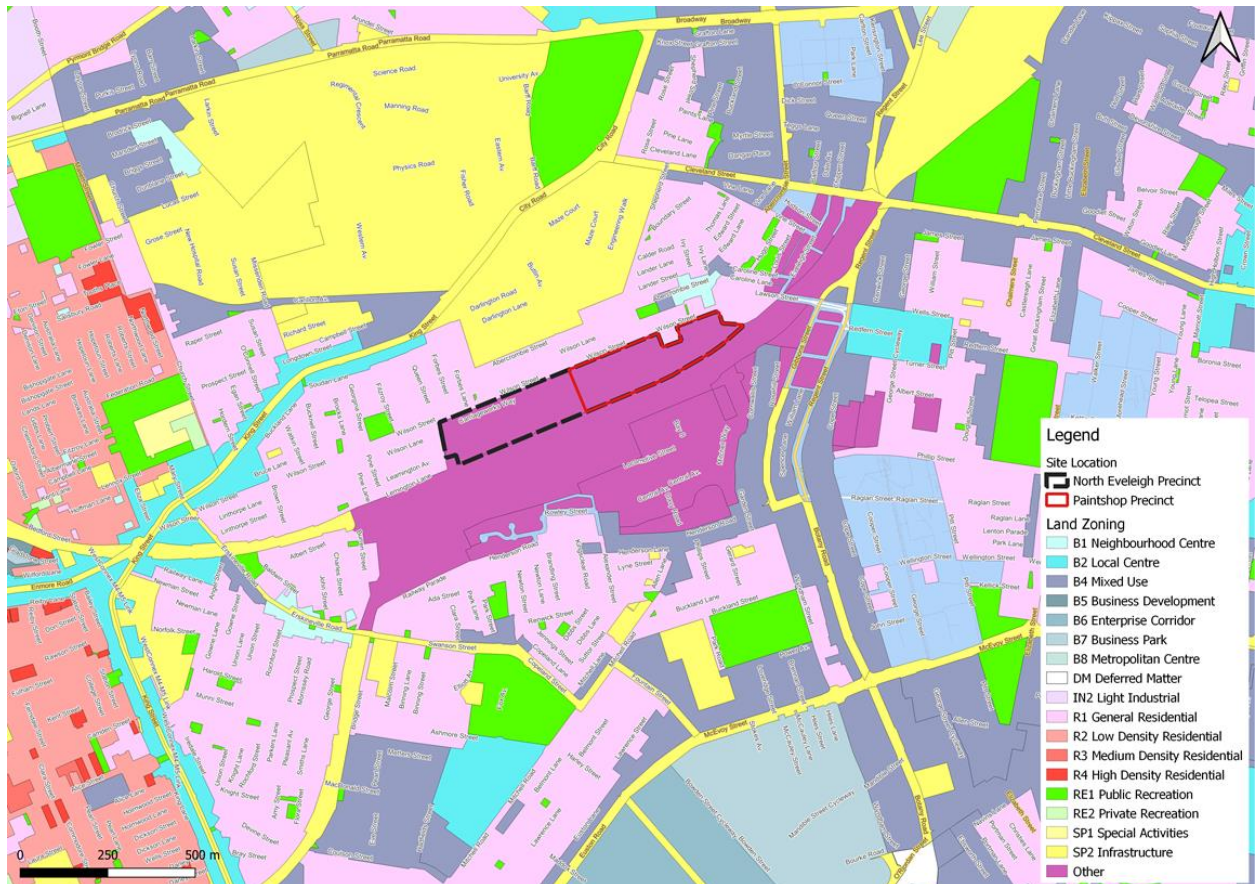


Source: SCT Consulting, 2022

### 3.1.4 Land use

A review of the Environmental Planning Instrument – Land Zoning (accessed July 2021) was undertaken, and the current land use is illustrated in **Figure 3-4**.

Figure 3-4 Land zoning around the Precinct



Key observations include:

- The Redfern North Eveleigh Precinct land zone is currently not classified
- The Precinct is surrounded by general residential zones, some public recreation, mixed-use areas and a neighbourhood centre
- Key land uses surrounding the precinct include Redfern station, Macdonaldtown station, University of Sydney Campus, Australian Technology Park and the King Street Local Centre.

### 3.1.5 Redfern station

Bounded by Little Eveleigh Street to the west, Lawson Street to the north and Gibbons Street to the east, Redfern station is located adjacent to the Precinct. Pedestrians can walk along Wilson Street and enter the station via the entry point on Little Eveleigh Street, about a 10-minute walk from the centre of the Precinct.

Multiple facilities are provided at Redfern station including bike racks, a bike shed, a kiss and ride stopping area, a taxi rank, Opal Card machines and wheelchair-accessible toilets.

See **Section 3.4.1** for more details on services and upgrades at Redfern station.

### 3.1.6 Macdonaldtown station

Located to the west of the Redfern North Eveleigh precinct, Macdonaldtown station is also about a 10 minute walk away from the centre of the Precinct. Pedestrians can walk along Wilson Street and access the station via the entry point on Leamington Lane.

Macdonaldtown station has facilities including bike racks and Opal Card machines.

## 3.2 Walking

The walking network in the vicinity of the Precinct is generally good with pedestrian facilities, such as footpaths, pram ramps, etc, provided on most of the walking routes and pedestrian crossings provided at intersections. The rail line does restrict east-west routes due to the limited crossing opportunities, with the closest crossings located at Lawson Street at Redfern station and Burren Street at Macdonaldtown station.

There is a significant pedestrian demand along Lawson Street and Abercrombie Street between Redfern station and the university campuses.

Typically, customers will be willing to walk up to 800m to a transport node, however customers walk up to 2km for walk-only trips between their origin and destination. **Figure 3-5** illustrates the walking catchment of the CME Building. The following public transport options are within 800m of the CME Building:

- Redfern station (Sydney Trains)
- Bus stops on:
  - Redfern Street
  - Gibbons Street | Regent Street
  - King Street | City Road
  - Cleveland Street.

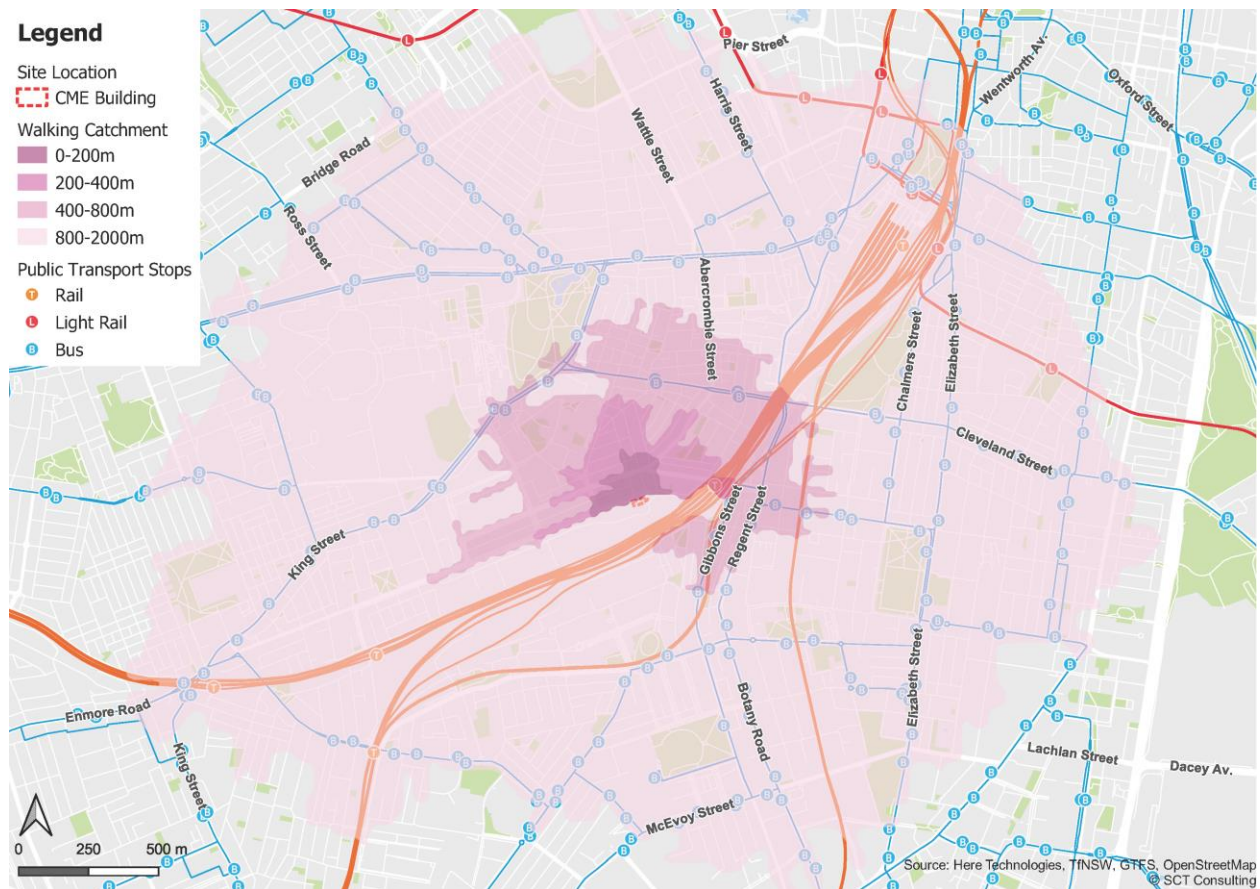
Glebe, Ultimo, Haymarket, Newtown and Waterloo are within the 2km walking catchment of the CME Building.

The completion of the New Southern Concourse upgrade will provide an additional pedestrian crossing over the rail line connecting North Eveleigh and South Eveleigh. The conversion of Little Eveleigh Street to a shared zone (when completed) will transform the environment for people who walk or cycle between Redfern station and the Precinct via Wilson Street as well as the University of Sydney.

The CME Building is located within 200m walking distance (less than a 2-minute walk) from the New Southern Concourse of Redfern Station (when completed) via Little Eveleigh Street and the Wilson Street shared zone. Footpaths are provided on both sides of Wilson Street that connect pedestrians between the site and the station as well as wider destinations.



Figure 3-5 Walking catchment of the CME Building



### 3.3 Cycling

The CME Building is served by existing cycling connections including a dedicated cycle facility along Wilson Street (immediate to the north of the site), as indicated in **Figure 3-6**. The dedicated cycle network connected into the one along Wilson Street, entirely on separated off-road cycleways or shared paths, links the CME Building with Central, Redfern, Newtown and Macdonaldtown stations, the University of Sydney as well as Australian Technology Park.

As illustrated in the **Figure 3-6** inset, a detour route along Lawson Street and Ivy Street is in effect for cyclists due to construction works for the Little Eveleigh Street shared zone. This cycle detour route will stay in place until the works are complete.

Figure 3-6 Bicycle network in the vicinity of the CME Building



### 3.4 Public transport

The CME Building is well served by public transport services, with the following options within walking distance (as illustrated in **Figure 3-7**):

- Redfern station is within approximately 200m walking distance (less than a 2-minute walk), through which numerous Sydney Trains services operate
- The future Waterloo Sydney Metro station will be approximately 800m, or a 10-minute walk, through which turn-up-and-go metro services will connect to stations between Tallawong (north-west) and Bankstown (south-west).
- Numerous bus routes within a 400-600m walk to City Road, Cleveland Street and the one-way pair of Gibbons Street or Botany Road which operate to Sydney CBD and other key strategic centres.

**Figure 3-7 Nearby public transport provisions**



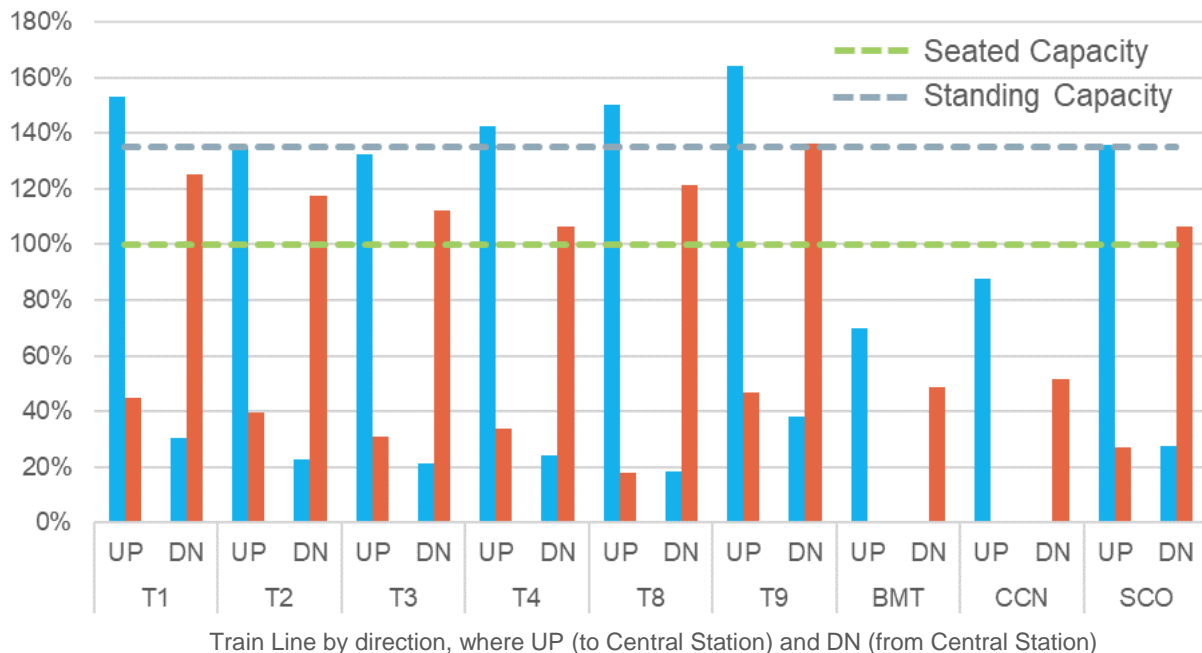
#### 3.4.1 Rail network

The CME Building is located within 200m walking distance (less than a 2-minute walk) from the New Southern Concourse of Redfern station (when completed) via Little Eveleigh Street and the Wilson Street shared zone. The future Waterloo Station, on the Sydney Metro City & Southwest line is also within the walking catchment of the CME Building.

Over 120 train services operate through Redfern station during peak hours, and it is the sixth busiest station in NSW. A review of available train capacity at Redfern station for September 2019 is presented in **Figure 3-8**.



Figure 3-8 Redfern station train capacity (AM peak)



Source: Rail Opal Assignment Model (September 2019) from Transport for NSW OpenData

Observations of existing and future conditions are:

- During the AM peak period, typically between 7-9am:
  - Metropolitan services operating towards Central (Up line) are generally at or above comfortable standing capacity
  - Significant spare capacity exists on outbound services from Central (Down line) during the AM peak, which would cater for customers from the north and north-west.
- During the PM peak hour, customers typically travel in the opposite direction from the AM peak and typically travel over a more spread-out period from 3pm (school peak) through to 7pm (end of the commuter peak). Consequently, the flatter customer demand profile results in increased capacity compared to the AM peak.
- Sydney Metro City & Southwest will replace the T3 Bankstown Line and no longer operate through Redfern, with the following implications:
  - Increased train paths available through the City Circle, which may result in increased T8 Airport & South Line services, and available capacity, via Sydenham/Redfern
  - Existing T3 Bankstown Line customers may interchange at Sydenham onto T8 Airport & South Line services or T4 Eastern Suburbs & Illawarra Line to access Redfern. Alternatively, they may opt for less crowded services and interchange at Central for an outbound (Down line) service.
- In addition to Sydney Metro City & Southwest, Sydney Metro West is also currently under construction. Although Sydney Metro West will not stop at Redfern station, it provides an attractive alternative for citybound customers which will likely free up capacity on Sydney Trains services via Redfern.
- The Redfern station Upgrade – New Southern Concourse, which is currently under construction, will provide a new station entrance on Little Eveleigh Street, an upgraded station entrance on Marian Street and a pedestrian bridge between the two with easy access to platforms 1 to 10 via new stairs and lifts, improving connections between the station and key destinations in the area.

#### 3.4.1.1 Station capacity

Based on observations of Redfern station, the Redfern station upgrade documentation and a review of Opal data for March 2019, it is evident that Redfern station infrastructure, namely platform vertical transport, approaches capacity during peak periods.



These constraints are driven by the relatively high egress and interchange customer demand during the AM peak period.

The New Southern Concourse currently under construction would significantly alleviate these constraints through the provision of:

- An additional concourse to facilitate interchange, entry and egress
- Increased vertical transport from platforms to improve platform clearance time and provide spare capacity
- Additional entry and egress locations with appropriately sized ticket facilities (gates and poles).

Based on the pedestrian assessment which was undertaken in 2019 for Redfern Station Upgrades including the New Southern Concourse, it significantly improves the pedestrian environment (and capacity).

As part of the modelling, future scenarios were assessed based on forecast demand data to inform the design. It is assumed future forecasts include a level of land use uplift within the Redfern area, which may include a proportion of the Redfern North Eveleigh precinct based on the 2008 approved scheme, including the CME Building.

### 3.4.2 Bus network

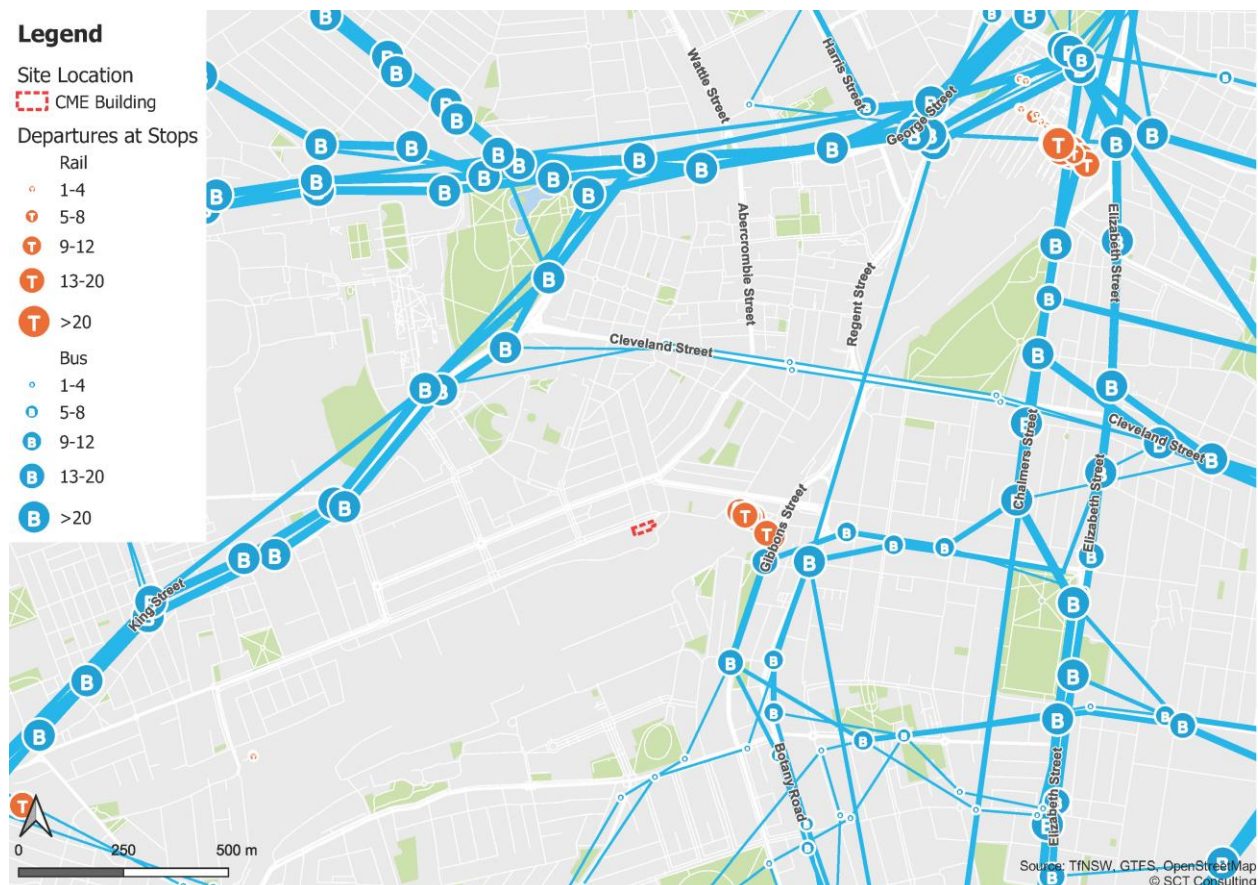
Buses along King Street / City Road are accessible within 800m of the CME Building and have more than 20 services running along them in the morning peak period, as shown in **Figure 3-9**.

On a typical weekday from 8-9am, there are up to:

- 48 bus services running inbound on City Road to Sydney CBD
- 25 bus services running outbound on City Road from Sydney CBD.

A similar quantum (between 30-40 services per direction) operates in the weekday PM peak, in the reverse direction as the dominant customer flow is outbound from Sydney CBD.

**Figure 3-9 Bus network and services in the vicinity of the CME Building**



A review of Bus Opal Assignment Model (September 2019) data for services along King Street and Elizabeth Street buses indicates buses operate with some spare capacity during the peak periods. In the Up direction (towards CBD) have standing room, with some routes with seated capacity as well during the AM peak hour. In the Down direction (from CBD), services typically have significant capacity.

## 3.5 Street network

### 3.5.1 General description

As indicated in **Figure 3-10**, access to and from the CME Building will be predominately through Wilson Street, Shepherd Street and Ivy Street. Wilson Street has one traffic lane and a parking lane in each direction, providing local access to the CME Building, the Carriageworks and residential properties fronting the street on both sides.

Connectivity to other wider street network and surrounding suburbs is facilitated through:

- Cleveland Street towards the Eastern Suburbs.
- King Street or Gibbons Street/ Botany Road, higher-order arterials that provide routes through to Princess Highway and the M5 and M8 motorways in the south and south-west.
- King Street, Enmore Road and Salisbury Road to the inner west.
- Parramatta Road through to the M4 Motorway in the west.
- Abercrombie Street and Regent Street through to Anzac Bridge and Harbour Bridge in the north.

Certain roads around the precinct are approved routes for heavy vehicles of various sizes. Performance Based Standard (PBS) Level 1 vehicles, which includes a truck and trailer or prime mover and semitrailer up to 20m in length (NHVR, 2018), can operate on the key primary and arterial roads as highlighted in **Figure 3-11**.

Heavy vehicles can also operate on other roads for last-mile purposes to connect to their origin or destination.

**Figure 3-10 Road network in the vicinity of the Precinct**

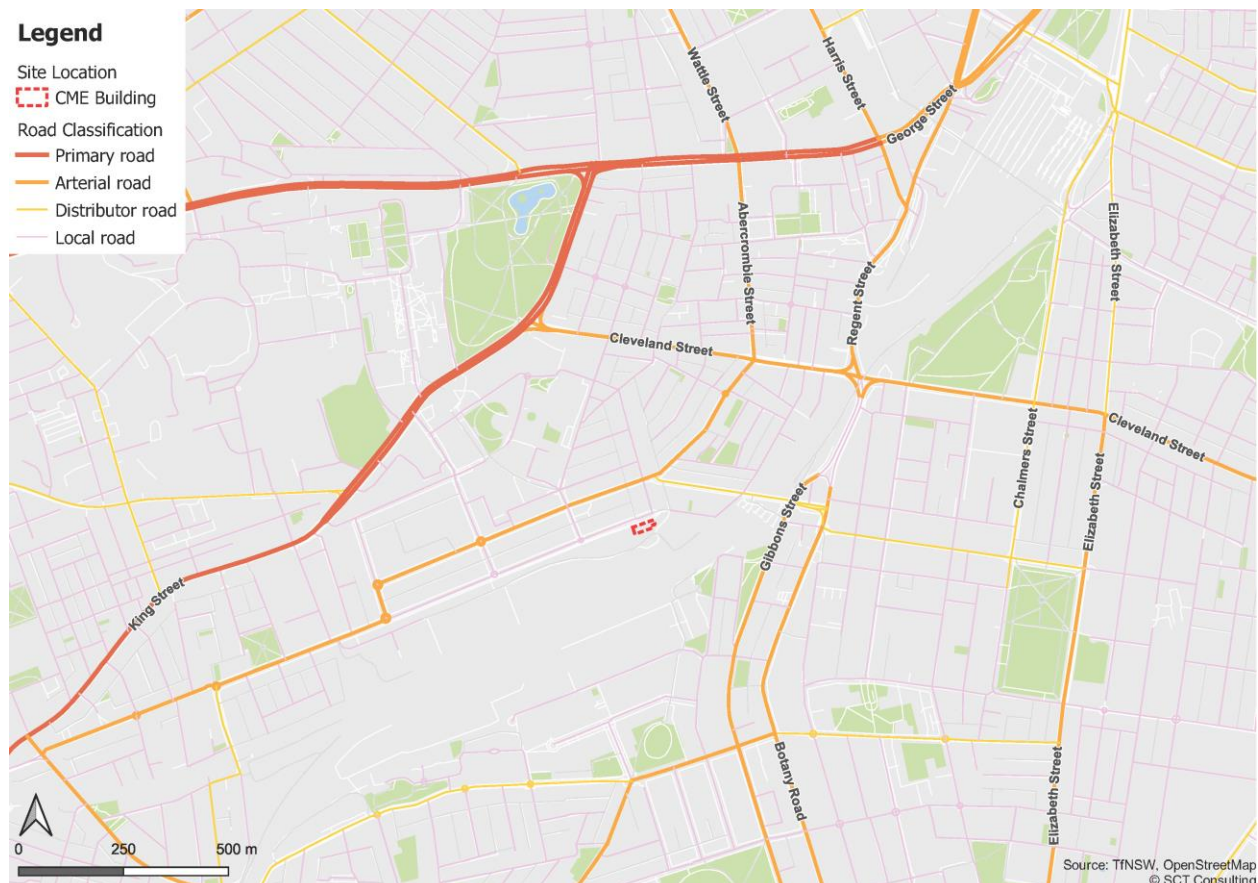
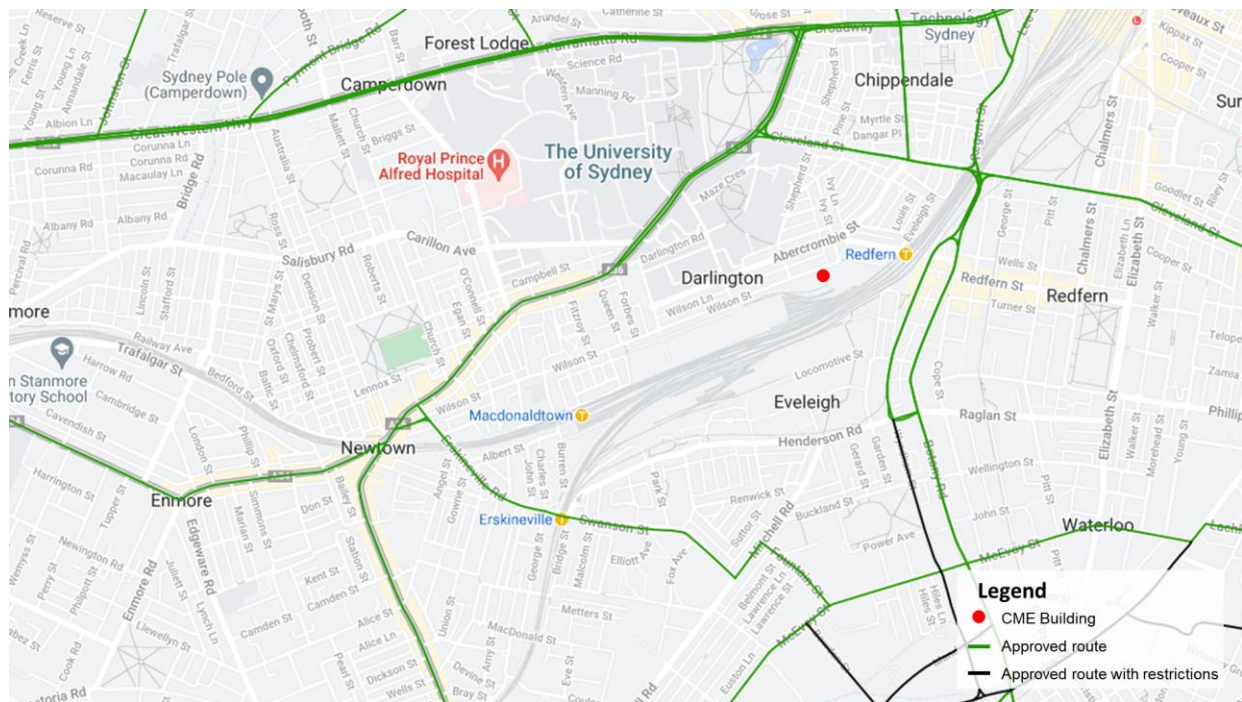




Figure 3-11 Heavy vehicle approved routes (PBS 1) in the vicinity of the Precinct



Source: Transport for NSW Restricted Access Vehicle map (accessed September 2022)

### 3.5.2 Movement and Place classifications

Classification, as part of the Movement and Place process, involves characterising a given segment of a road or street for a specific project purpose, such as identifying priority areas or priority needs. Classification into the following four street environments can help to provide a quick understanding of where movement and place interact:

- **Civic spaces** are streets at the heart of our communities and have a significant meaning, activity function, or built environment. They are often in our major centres, our tourist and leisure destinations, and our community hubs. These streets are often pedestrian priority, shared spaces.
- **Local streets** are the majority of streets within our transport networks and often have important local place qualities. Activity levels are less intense; however, these streets can have significant meaning for local people.
- **Main streets** have both significant movement functions and place qualities. Balancing the functions of these streets is a common challenge.
- **Main roads** are routes central to the efficient movement of people and freight. They include motorways, primary freight corridors, major public transport routes, the principal bicycle network, and key urban pedestrian corridors. Place activity levels are less intense; however, these roads and routes can have significant meaning to local people.

The majority of the streets in the vicinity of the CME Building would be local streets and main streets, with a combination of movement functions and place qualities. Wilson Street would be classified as a local street, while King Street, City Road, Cleveland Street and Regent Street would be considered as main roads to the north and east of the Precinct.

### 3.5.3 Existing traffic conditions

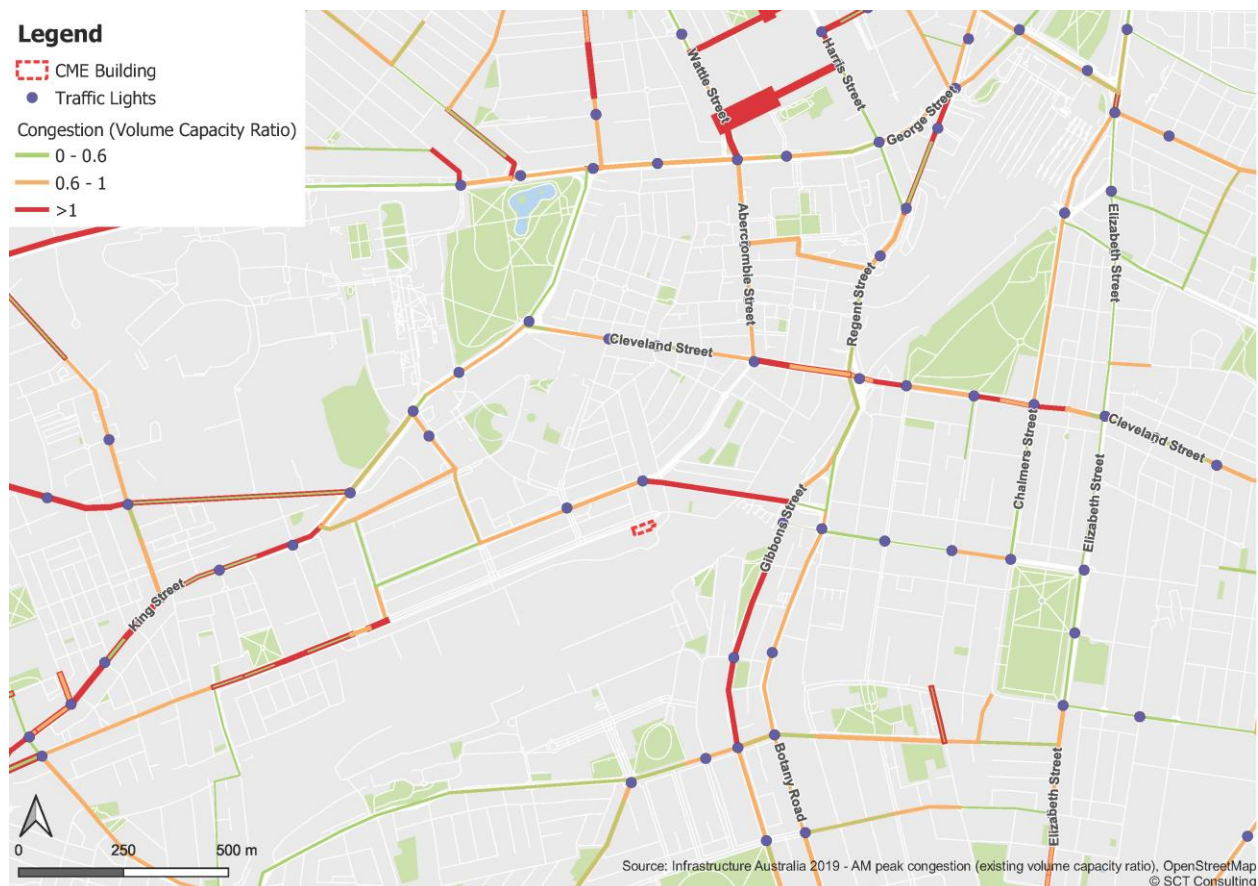
Traffic modelling was undertaken in the 2008 Redfern North Eveleigh Precinct Concept Plan, which indicated that intersections in the vicinity of the Precinct were operating at a level of service (LoS) C or better. A review of traffic volumes on King Street indicates that there has been minimal growth in traffic between 2016 and 2019.

Modelling of road capacities was done by Infrastructure Australia in 2019, which reported that, while the project area is well connected to the wider regional road network, key routes from the west, south-west and west are at or near capacity during the AM peak, as shown on **Figure 3-12**, including:

- City Road
- Parramatta Road
- Gibbons Street-Wyndham Street
- Cleveland Street
- Eastern Distributor.

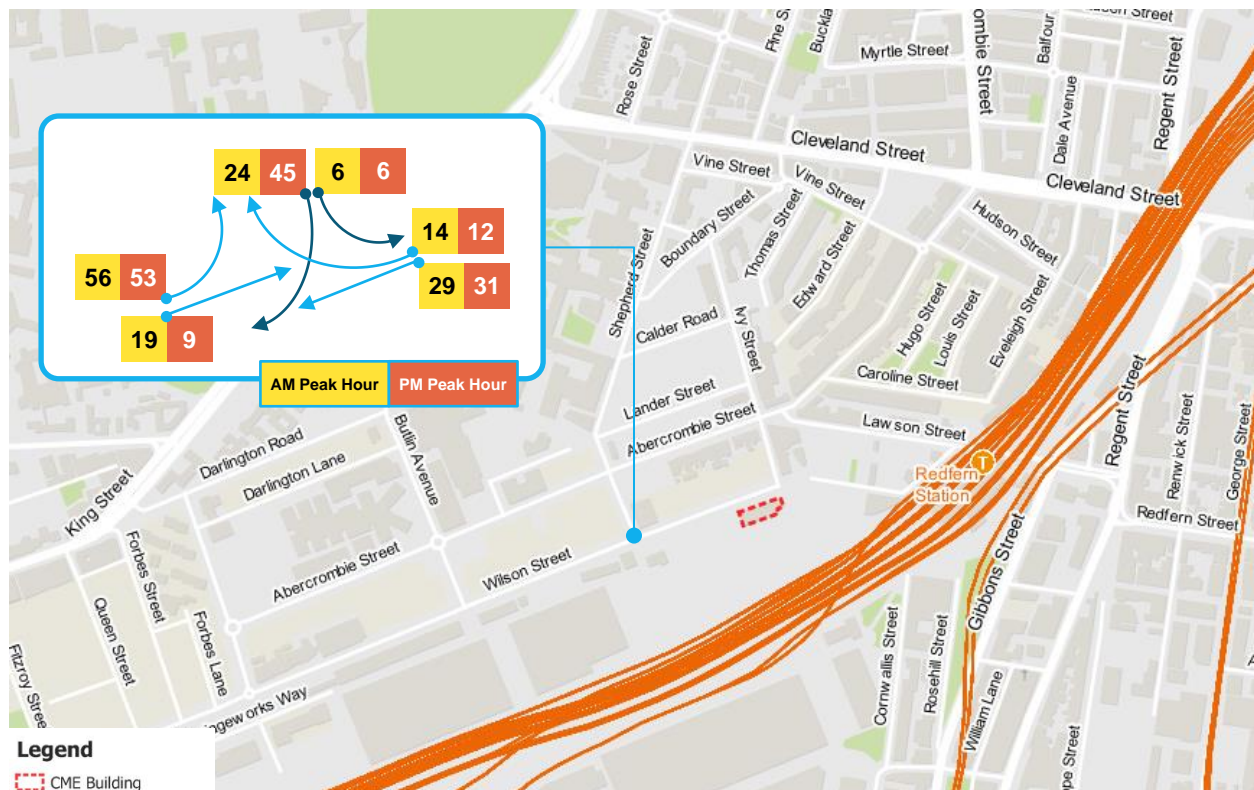
During the PM peak, congestion generally reverses in direction (outbound from City). This subsequently includes one-way pairs, such as Regents Street-Botany Road.

**Figure 3-12 Road network congestion in the vicinity of the CME Building**



Recent traffic and pedestrian counts were undertaken at the intersection of Wilson Street and Shepherd Street (the intersection closest to the CME Building) during the weekday AM and PM peak hours on 11 August 2022. The peak hour (8:30 to 9:30am and 4:30 to 5:30pm) traffic and pedestrian counts recorded were shown in **Figure 3-13**.

Figure 3-13 2022 peak hour traffic and pedestrian volumes at Wilson Street and Shepherd Street intersection



Source: Trans Traffic Survey, August 2022

The survey showed that Wilson Street to the east of Shepherd Street has a total of 50-70 vehicles per hour travelling in both directions, significantly below the environmental capacity of a local residential street. Shepherd Street recorded approximately 100 vehicles per hour, which can also be deemed to have significant spare capacity for additional traffic. Up to 60 pedestrians per hour were observed crossing Shepherd Street at the intersection.

### 3.6 Car parking

Unrestricted on-street parking is available on the southern side of Wilson Street, while short-stay (1P) parking is provided between 8am and 10pm (permit holders exempted) on the northern side of Wilson Street in the vicinity of the CME building.

On-street parking spaces are also available on Abercrombie Street, Wilson Lane, Shepherd Street, Codrington Street and Golden Grove Street. On Wilson Lane, on-street parking is only available on one side of the road.

Similar to Wilson Street, the on-street parking spaces on Golden Grove Street and Wilson Lane have a one-hour time limit between 8am and 10pm, permit holders excepted.

Abercrombie Street, Shepherd Street and Codrington Street have parallel parking spaces available on both sides of the road with a two-hour time limit between 8am and 10pm, permit holders excepted.

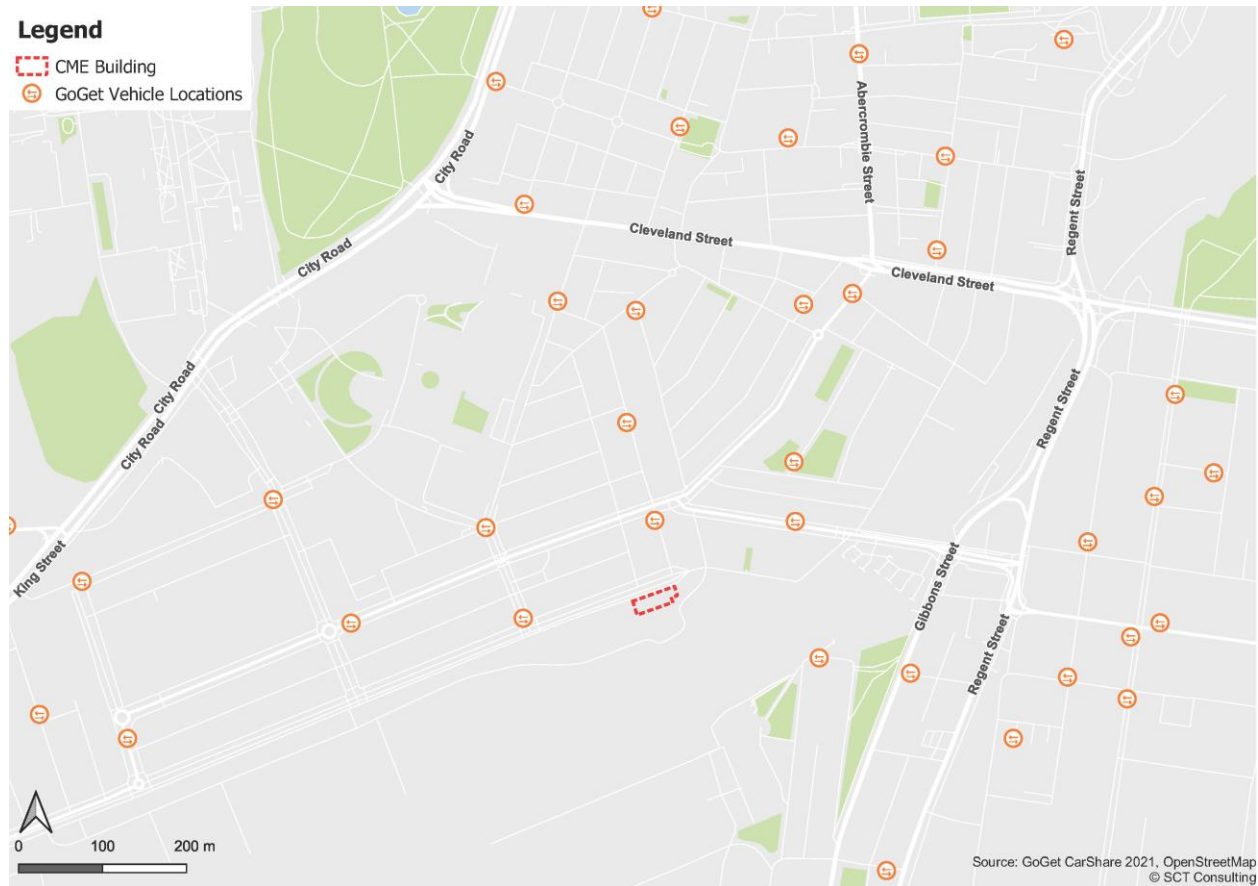
On-street parking is no longer provided on Little Eveleigh Street, as this provision has been removed to accommodate the future Shared Zone being delivered as part of the Redfern Station upgrade works.



### 3.7 Share vehicles

GoGet car share vehicles are available close to the CME Building and the Precinct, specifically on Wilson Street, Pine Lane, Forbes Street, Golden Grove Street and Lawson Street, as indicated in **Figure 3-14**. In general, there are about two GoGet vehicles available on each nearby street.

**Figure 3-14 GoGet car share locations**



Source: GoGet CarShare, 2021

## 3.8 Travel behaviour

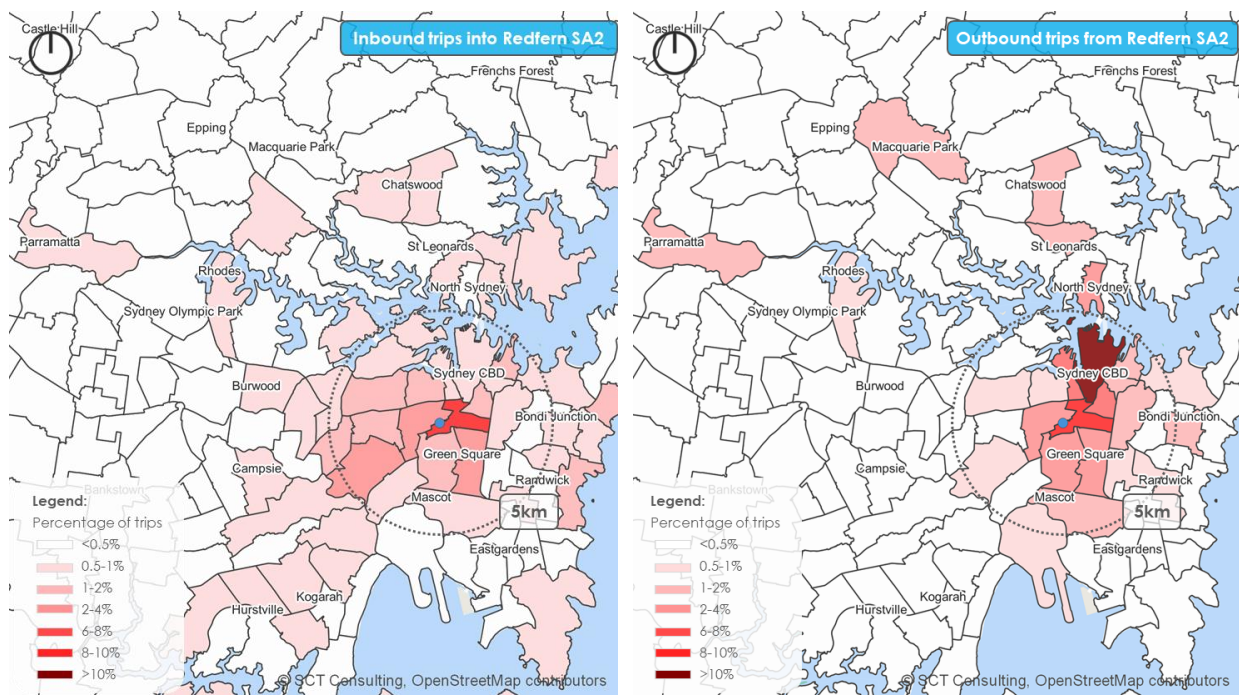
### 3.8.1 Journey to work data

#### 3.8.1.1 Origins and destinations

A review of Journey to Work (2016) data for the Redfern SA2 found that ~35% of outbound trips by residents and ~70% of inbound trips by workers were within 5kms of the site (see **Figure 3-15**). This indicates many trips are relatively short. A significant proportion (~10%) of trips are intrazonal (or self-contained within Redfern-Chippendale).

Additionally, key origins and destinations are located along existing rail corridors. Hence, the CME Building as part of the wider Redfern North Eveleigh Precinct is a prime candidate for sustainable modes including walking, cycling and public transport.

**Figure 3-15 Journey to work origins and destinations**



Source: Journey to Work 2016 (Redfern-Chippendale SA2) data

#### 3.8.1.2 Existing Journey to Work mode share

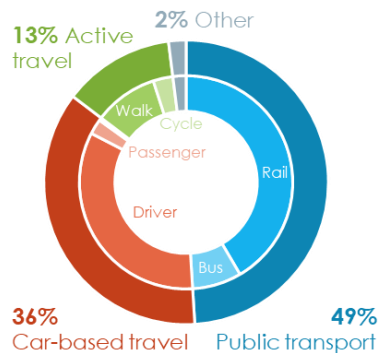
As shown in **Figure 3-16**, public transport is the main travel mode for commute trips in this area. The western portion of the statistical area (SA2) is better served by buses compared to the rest of the precinct (including the CME building), but this reduced bus coverage is offset by the proximity to Redfern station.

Private vehicle use (especially as a driver) is common, which could be attributed to the high proportion of mixed-use and light industrial land-uses, which typically have on-site parking.

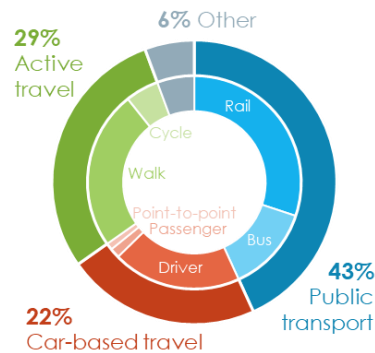
For outbound trips, i.e. residents of Redfern-Chippendale, walking is the second most common mode after public transport indicating a willingness to walk and cycle due to the environment (relatively flat with some low traffic streets), infrastructure and mixed land uses, which promote short, connected trips.

**Figure 3-16 Journey to work mode share**

Inbound trips into Redfern



Outbound trips from Redfern



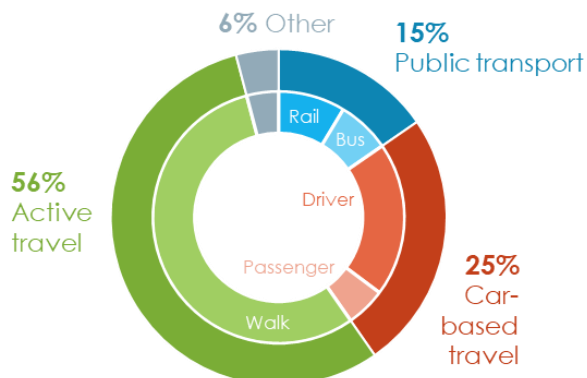
Source: Journey to Work 2016 (Redfern-Chippendale SA2) data

### 3.8.2 Household Travel Survey

The proportion of walk trips, assumed to also include cycle since it is not listed as mode, increases significantly when all trip-purposes are considered. These include work-related, education, shopping and recreation, while the journey to work data considers only commute-related trips. As shown in **Figure 3-17**, active transport accounts for more than half of all trips by residents of the area.

**Figure 3-17 All trip purpose mode share**

All trips purposes



Source: Household Travel Survey 2018/2019 (Inner Sydney SA3)



### 3.9 Summary of issues and opportunities

Based on the review of the existing transport conditions, the following is a summary of issues and opportunities:

- The CME Building is well-served by existing cycling connections, including a dedicated facility along Wilson Street, adjacent to the site.
- The CME Building is located adjacent to Redfern station and within a 10-minute walk distance of Macdonaldtown station and bus stops on City Road / King Street. Over 120 train services operate through Redfern station during peak hours, with significant spare capacity on outbound services from Central Station.
- Although the planned Sydney Metro West will not stop at Redfern station, it provides an attractive alternative for citybound customers, which will likely provide additional capacity on Sydney Trains services via Redfern.
- The Redfern station upgrade – New Southern Concourse, which is currently under construction, will provide a new station entrance on Little Eveleigh Street, an upgraded station entrance on Marian Street and a pedestrian bridge between the two with easy access to platforms 1 to 10 via new stairs and lifts, improving connections between the station and key destinations in the area, as well as providing increased capacity. The CME Building is located within 200m walking distance (less than a 2-minute walk) from the New Southern Concourse of Redfern Station (when completed) via Little Eveleigh Street and the Wilson Street shared zone.
- Wilson Street to the east of Shepherd Street has a total of 50-70 vehicles per hour travelling in both directions, significantly below the environmental capacity of a local residential street. Shepherd Street recorded approximately 100 vehicles per hour which can also be deemed as having significant spare capacity for additional traffic. Up to 60 pedestrians per hour were observed crossing Shepherd Street at the intersection.
- There is minimal long-term on-street parking available, but there are numerous share cars close to the CME building.
- Existing commute data indicates that key origins and destinations are located within 5km of the CME Building and along existing rail corridors. Hence, the site is a prime candidate for sustainable modes including walking, cycling and public transport. Public transport is the main travel mode for commute trips in the Redfern area and active transport is the second most common mode, indicating a willingness to walk and cycle. For all trip purposes, active transport accounts for more than half of all trips by residents of the area.
- The area surrounding the precinct has low car ownership and a young demographic, which suggests the surrounding population has greater potential to use public transport or walk / cycle than the general Sydney population.



## 4.2 Proposed parking and loading arrangements

Given the limitation that the planning of the Paint Shop Sub-Precinct is in progress (subject to the approval of a separate planning approval), the toilet block at the back of the CME Building is subject to later stages of development and would not be demolished as part of the CME Building project. This restricts the area available for any traffic to manoeuvre on-site and to perform forward-in and forward-out movements from and to Wilson Street respectively.

Hence, as an interim measure until the later stages of the Paint Shop Sub-Precinct is approved that permit the removal of the toilet block at the back of the CME Building, this project proposes:

- Zero car park provision on-site
- An on-street loading zone along Wilson Street frontage.

To align with the transport objectives developed for the Paint Shop Sub-Precinct and to take full advantage of the site's proximity to Redfern station and its current upgrade of the New Southern Concourse, while minimising the reliance on private vehicle trips, a set of aspirational mode share targets with a maximum 5 per cent private vehicle mode share for non-residential use has been developed in consultation with the City of Sydney.

To support the aspirational mode share targets and the objective to achieve a maximum 5 per cent private vehicle mode share target, it is the intent to constrain the car parking provision rate for the Sub-Precinct at a maximum rate of 1 space per 700 square metres of GFA for any non-residential car parking spaces (including disabled and car share) to be provided.

### 4.2.1 Proposed car parking facilities

Based on the GFA of approximately 1,250 square metres of the CME Building, the use of the site would require a maximum of 2 parking spaces. However, given the interim site constraints and the prescribed parking rate is a maximum rate, it is considered most appropriate for the adaptive reuse of the building to provide zero on-site parking. This approach is consistent with the building's proximity to Redfern station and most workers and visitors are expected to travel to work by train, bus, walk or cycle based on the historical traffic data.

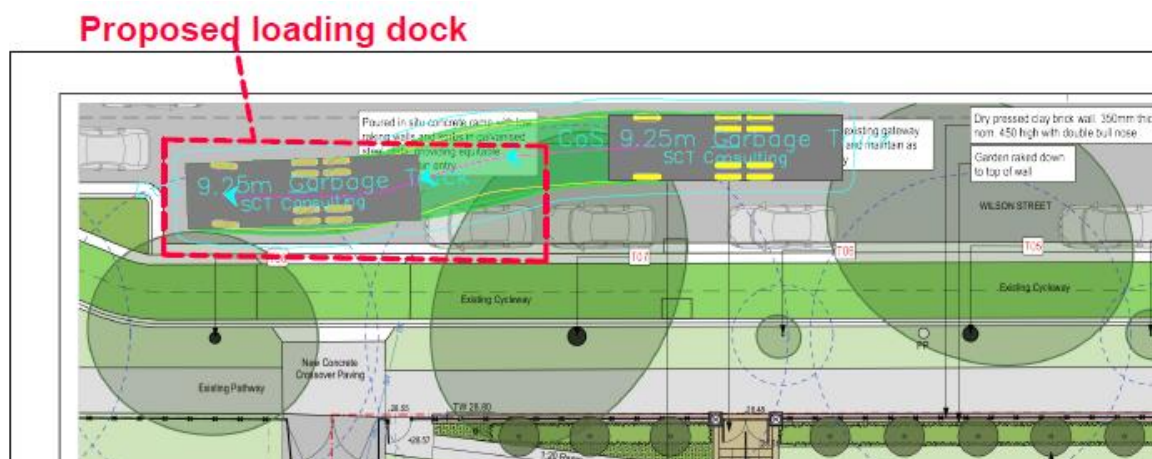
Consultation with City of Sydney has confirmed that there is no issue with providing zero parking on site as an interim measure before the Paint Shop Sub-Precinct is approved.

Furthermore, in future the rear of the building is intended as an active frontage to the wider Paint Shop Sub-Precinct development. As such, parking in this area should align with the proposed future use.

### 4.2.2 Proposed loading facilities

In the interim, while no on-site car parking is provided, no traffic will be using the driveway. Hence an on-street loading zone (as shown in red in **Figure 4-2**) is proposed along Wilson Street outside of the CME Building driveway (highlighted in orange) and the parking bays immediate to both sides of the driveway (highlighted in blue). This would result in a loss of two on-street parking spaces (one on each side of the driveway). Based on on-site observations, vehicles also currently park illegally within the driveway zone (which is signposted as No Parking).

Figure 4-2 Proposed on-street loading zone for CME Building (interim)



Source: SCT Consulting, 2022

Consultation with City of Sydney has confirmed that the proposal of an on-street loading facility is appropriate before the off-street facilities are available. The conversion of the parking spaces immediate to both sides of the driveway to a loading zone will be subject to approval by the Local Traffic Committee.

A swept path analysis has been undertaken to confirm the largest design vehicle which is expected to be the City of Sydney garbage collection vehicle, can access the proposed loading zone. Vehicles (including the garbage collection vehicle and other loading vehicles) are expected to enter the loading zone in a forward direction, as shown in **Figure 4-3**, and exit in a forward direction.

**Figure 4-3 Swept path analysis of garbage collection vehicle using the on-street loading zone for the CME Building**



Source: SCT Consulting, 2022

The swept path analysis confirmed that the proposed loading zone is appropriate to be used by Council's garbage collection vehicles, delivery vehicles expected for day-to-day office deliveries which are typically using small rigid vehicles (SRVs) as well as any cars which may undertake pick-up or drop-off to the building. There are no height restrictions within the immediate vicinity of the proposed location, and as such can accommodate the minimum vertical clearance of 4.0m required<sup>1</sup> for the garbage collection vehicle.

#### 4.2.3 Proposed cycle parking facilities

Bike parking spaces for new developments are to be provided with a minimum rate of 1 per 400 square metres of GFA according to the City of Sydney DCP (2012). Hence the proposed adaptive reuse of the CME Building should provide at least 4 secure bike parking facilities. Class 2 bike facilities are to be provided for staff/employees and Class 3 bike rails for visitors of any land use.

End-of-trip facilities are to be provided where there are allocated bicycle parking facilities associated with commercial or retail development at the following rates according to the City of Sydney DCP (2012):

- One personal locker for each bike parking space
- One shower and change cubicle for up to 10 bike parking spaces
- Showers and change facilities may be provided in the form of shower and change cubicles in a unisex area in both female and male change rooms
- Locker, change room and shower facilities are to be located close to the bike parking area, entry and exit points and within an area of security camera surveillance where there are such building security systems.

Bike parking facilities are to be provided at the rear of the site. Staff and visitors can approach the site via the Wilson Street separated cycleway and enter/exit the cycleway via the existing driveway kerb ramp. People who cycle can dismount and access the site via the new accessible ramp.

<sup>1</sup> Guidelines for Waste Management in New Developments (City of Sydney, August 2018)



### 4.3 Proposed access

As there is no on-site parking provision, there will be no vehicular access required in the interim for the adaptive reuse of the CME Building. Hence the proposed on-street loading zone at Wilson Street immediate outside of the existing driveway will support loading and unloading for day-to-day deliveries, waste collection as well as a pick-up drop-off area for ride-share vehicles and taxis for any visitors to the CME Building. Under this arrangement, there will be no vehicles crossing the existing cycleway crossover with the existing driveway.

People who walk to the site will access the building via a new accessible ramp that connects the existing footpath at Wilson Street and the building entrance. People who ride to the site will access the bicycle parking facilities located at the back of the building via the new accessible ramp.

### 4.4 Mode share and trip generation

To align with the transport objectives developed for the Paint Shop Sub-Precinct and to take full advantage of the site's proximity to Redfern station and its current upgrade of the New Southern Concourse, while minimising the reliance on private vehicle trips, a set of aspirational mode share targets with a maximum 5 per cent private vehicle mode share for non-residential use has been developed in consultation with the City of Sydney.

**Table 4-1** presents the proposed mode share targets for the Paint Shop Sub-Precinct and hence the mode share targets for the CME Building.

**Table 4-1 Proposed mode share targets**

Mode	Mode share target	AM peak hour trips	PM Peak hour trips
Walk	20%	10	7
Cycle	10%	5	4
Rail	62%	31	22
Bus	3%	2	1
<i>Total non-vehicle</i>	<i>95%</i>	<i>48</i>	<i>34</i>
<i>Vehicle</i>	<i>5%</i>	<i>2</i>	<i>2</i>
<b>Total</b>	<b>100%</b>	<b>50</b>	<b>36</b>

Based on a person trip rate of 4.0 and 2.9 per 100 square metres of GFA for a commercial development during the AM and PM peak hour respectively, the proposed adaptive reuse of the CME Building would be expected to generate approximately 50 person trips in the AM peak hour and 36 person trips in the PM peak hour.

**Table 4-1** also shows the number of trips per mode based on the proposed mode share targets, that are expected to be generated by the CME Building during the AM and PM peak hours. According to the mode share targets, most of the peak hour trips will be made by rail, with a total of 30 per cent of trips to be made by walking and cycling. Only up to 2 trips will be made by cars, which they are expected to arrive and leave the site via car share vehicles or taxis. Visitors may also elect to drive and park within the immediate vicinity of the site, including the unrestricted on-street parking on the southern verge of Wilson Street.

### 4.5 Green Travel Plan

Sustainable transport and Travel Demand Management (TDM) strategies involve the application of policies, objectives, measures and targets to influence travel behaviour, to encourage the uptake of sustainable forms of transport, i.e. non-car modes, wherever possible.

TDM measures have proven to reduce congestion created by growth within urban areas and unlock urban renewal opportunities. They result in travel behaviour that uses less road space than a single-occupant vehicle commute and takes advantage of spare transport capacity outside the morning and afternoon peaks.

TDM strategies generally guide all relevant customers (residents, employees and visitors) in changing their travel behaviour in the following ways:

- Reduce travel



- Re-mode (consideration of travel via alternative modes)
- Re-time (consideration of travel at alternative times)
- Re-route.

A framework has been set up for encouraging more sustainable travel, which has been used as a key principle of planning for the development and future developed by future occupants of the building.

To align with the transport objectives set for the Paint Shop Sub-Precinct and to take full advantage of the site's proximity to Redfern station and its current upgrade of the Southern Concourse, while minimising the reliance on private vehicle trips, a set of aspirational mode share targets with a maximum 5 per cent private vehicle mode share for non-residential use has been developed in consultation with the City of Sydney.

For the adaptive reuse of the CME Building, there will be no on-site parking provision to further reduce the incentives for future employees / visitors to drive to and from the site. Hence the only vehicle trips would be expected to be made by taxis or car share vehicles. Employees may elect to drive and park within the immediate vicinity of the site, however there is only limited unrestricted parking on Wilson Street (southern side), which would likely discourage private vehicle use. Short-stay visitors may drive and park within the immediate vicinity of the site within the time-restricted bays.

Other key initiatives and measures of TDM strategies that are strongly suggested and should be further developed into a Green Travel Plan and Transport Access Guide (as included in **Appendix A**) by future building occupants include:

- Reduce the need to travel
  - Planning of the wider Redfern North Eveleigh SSP as a mixed-use community to maximise trip containment within the precinct and encourage the use of active transport (walking and cycling) for short trips.
- Re-think the mode of travel
  - Walking and cycling:
    - A highly permeable and safe pedestrian network that connects to the major transport hubs and key facilities surrounding the building within walking distance
    - Dedicated cycle routes that connect to the regional routes and major transport hubs
    - High-quality, safe and accessible end-of-trip facilities
    - Promotion of bicycle initiatives – such as cycle-to-work days, and free bike check-up events.
  - Public transport:
    - Accessible frequent public transport services to establish a non-car travel behaviour
    - Good quality public transport stops in the vicinity of the development
    - Tailored information with clear mapping and walking catchments at public transport stops
    - Provision of public transport information at the office.
  - Parking measures to encourage alternative modes of travel:
    - Accessible to parking spaces dedicated to car-share schemes and community car-share vehicles, both on-street and incorporated in easily accessed public car parks.
- Re-time and Re-route journeys:
  - Development of specific community engagement programs to enable changing travel behaviour which includes:
    - Active and public transport maps
    - Personalised journey planner
    - Notifications of the latest travel information
    - Shared vehicles information
    - Car-pooling opportunities

- Other precinct-related information.
- Real-time information embedded into development and public transport stops.

While it is important to develop a Travel Plan that is aimed at managing travel demand and reducing reliance on car travel, it is more important to monitor and evaluate the effectiveness of individual measures and the need to adjust the measures. The planning and implementation of a targeted Green Travel Plan with the above green travel initiatives / principles could support the delivery of a transit-oriented development at the CME Building within the Paint Shop Sub-Precinct that provides significant opportunities for alternative travel options and reduces the need for car travel.

## 5.0 Traffic and Transport Impact Appraisal

### 5.1 Impacts on public transport

It is expected that most of the workers and visitors would travel to and from the site using public transport and capitalise on the site's proximity to the train and bus services. The adaptive reuse of the CME Building is expected to generate an additional 30 rail trips and 2 bus trips during peak hours.

The public transport network is expected to be able to accommodate this small increase of additional trips generated by the proposal, given the capacity and connectivity of the existing public transport network. The improved customer offering and increased capacity as a result of the Redfern station upgrade – New Southern Concourse project and the Sydney Metro projects would further provide capacity to destinations across Sydney for future employees.

### 5.2 Impacts on people who walk

The adaptive reuse of the CME Building is expected to generate an additional 45 walking trips (including those travelling by public transport between the station / bus stop and the site) during peak hours. The existing footpaths along Wilson Street would be able to cater for this additional demand of less than one extra pedestrian per minute.

The completion of the Redfern station upgrade – New Southern Concourse as well as the conversion of Little Eveleigh Street to a shared zone would enable the majority of future employees and visitors to travel between Redfern Station and Wilson Street in a pedestrian-priority environment.

### 5.3 Impacts on people who ride

The existing cycle infrastructure around the site such as the dedicated cycleway along Wilson Street provides a connection for people who ride to cycle safely to and from the CME Building.

The adaptive reuse of the CME Building is expected to generate an additional 5 cycle trips during peak hours, which can be accommodated within the current infrastructure given the relatively small increase.

### 5.4 Impacts on parking

As part of the sustainable initiatives to minimise the traffic impacts of the proposed development, there will be no on-site parking provision. Supported by the site's proximity to current and proposed public transport services, it is expected that vehicle-related trips would be limited to 2 trips per peak hour.

These trips would include pick up and drop-offs from taxis or other ride-sharing services which would only require temporary parking. Consequently, this should not put additional pressure on on-street parking demand. If these 2 trips elect to drive, they may park in the unrestricted on-street parking on the southern verge of Wilson Street.

The proposed on-street loading zone would cause the loss of two on-street parking spaces and should have negligible impacts on the operations of on-street parking along Wilson Street and the surrounding street network.

### 5.5 Impacts on the road network

The adaptive reuse of the CME Building is estimated to generate up to an additional two car trips during peak hours given its proximity to current and proposed public transport services and with no provision of on-site parking. The proposed development is expected to have minimal impacts on the surrounding road network.

### 5.6 Road safety considerations

The adaptive reuse of the CME Building does not significantly change street operations within the immediate vicinity of the development, hence changes to road safety are minimised. This includes:

- Access for people who walk (including those from public transport) or cycle, who will leverage purpose-built infrastructure, including the Little Eveleigh Street Shared Zone and Wilson Street footpath and separated cycleway. The design of these pieces of infrastructure would already consider and mitigate the identified safety risks.

- Parking and loading, which will occur on-street within existing kerb-side bays. Hence no additional safety risks are introduced from additional vehicle access. Design of the loading zone to be compliant with AS2890 Part 5 will help minimise the risk of introducing additional safety risks to the on-street environment.

## 5.7 Cumulative impacts from nearby developments

The key development in the vicinity of the CME Building is the overarching Redfern North Eveleigh (RNE) Precinct, which is located immediately adjacent to the CME Building. As discussed in **Section 1.1.2**, RNE includes:

- The Clothing Store Sub-Precinct, which has planning approval and partially developed
- The Carriageworks Sub-Precinct, reflecting the cultural heart of the Precinct where current uses will be retained
- The Paint Shop Sub-Precinct, which is currently subject to a separate planning approval.

Based on the Transport Strategy and Impact Assessment (SCT Consulting, June 2022) on exhibition in support of the Paint Shop sub-precinct rezoning proposal, the commentary on impacts is summarised in

**Table-5-1 Summary of transport impacts for the Paint Shop Sub-Precinct**

Mode	Redfern North Eveleigh – summary
Public Transport	<ul style="list-style-type: none"> <li>– About 2,800 people are forecast to enter and exit the Sub-Precinct in the AM peak hour by rail and 150 by bus</li> <li>– There is forecast to be sufficient capacity at Redfern station to accommodate the increased number of trips. Increased capacity will be provided through the introduction of Sydney Metro (which improves capacity on Sydney Trains), the New Southern Concourse and the boardwalk connection into the Precinct.</li> <li>– There is capacity on buses that operate in the surrounding area, both inbound and outbound from the city</li> </ul>
Walk	<ul style="list-style-type: none"> <li>– About 950 people are forecast to enter and exit the Sub-Precinct in the AM peak hour by walking.</li> <li>– The internal pedestrian network has been designed to always accommodate pedestrians in a comfortable environment (Level of Service C or better).</li> <li>– The impact on the external walking network is spread through the area surrounding the site. For most locations, this equates to &lt;10 people per minute spread across the parallel street network. The increase could be accommodated within the comfortable level of capacity of a standard footpath.</li> </ul>
Cycle	<ul style="list-style-type: none"> <li>– About 420 people are forecast to enter and exit the sub-precinct in the AM peak hour</li> <li>– The Sub-Precinct is served by existing cycling connections, including a dedicated facility along Wilson Street, and it is considered that the surrounding cycle network would be able to accommodate this increase.</li> </ul>
Parking	<ul style="list-style-type: none"> <li>– Parking for the Precinct is provided within the precinct, including off-street and on-street provisions on the internal road network.</li> </ul>
Road Network	<ul style="list-style-type: none"> <li>– Compared to the approved 2008 Concept Plan, there is forecast to be a 47 per cent reduction in peak-hour vehicle trips from the Precinct.</li> <li>– Therefore, a reduced impact on the road network is forecast compared to what was approved in the 2008 Concept Plan.</li> </ul>

Source: Redfern North Eveleigh SSP Paint Shop Sub-Precinct - Transport Strategy and Impact Assessment (SCT Consulting, June 2022)

Overall, the impact on the surrounding transport network could be accommodated within the capacity (existing and proposed). The additional CME building trips represent approximately one per cent of the Precinct trips, and hence the additional CME-related trips would be negligible in comparison.

## 5.8 Mitigation of operational impacts

In summary, the proposed development is expected to have negligible impacts on the surrounding street network, on-street parking, public transport network as well as the footpaths and cycleways. Hence, the only intervention required to support this development is the removal of the landscaped area adjacent to the proposed loading zone to facilitate access as discussed in **Section 4.2.2**.



## 6.0 Preliminary construction traffic management plan

### 6.1 Proposed construction activities

The proposal is to refurbish and fit-out the CME Building for commercial occupancy. The current program of works indicates that construction and fit-out works would commence in June 2023 for six months until November 2023. It is also intended that a tenant will occupy the office space from April 2024.

An indicative construction scope is summarised in **Table 6-1**, it is envisaged the construction scope and staging would be further refined in subsequent stages of the development approval and documented (along with additional impacts or considerations) within a *Construction Environment Management Plan*.

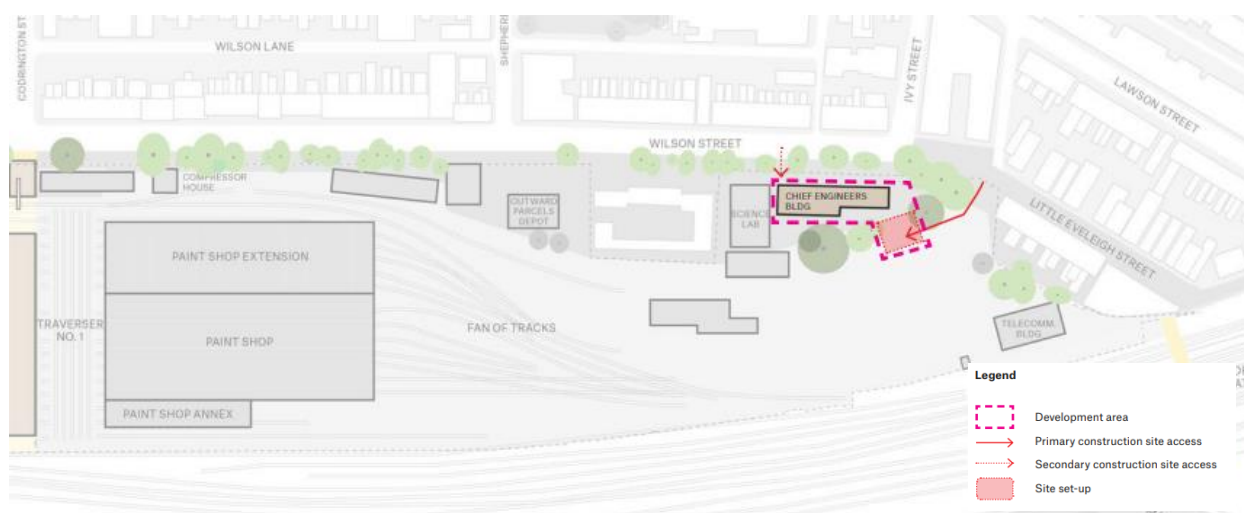
**Table 6-1 Demolition scope summary**

Step	Work summary
1	Site establishment
2	Removal of contaminated material (including lead paints and asbestos)
3	Dismantle, package and transport offsite to storage all the loose heritage items
4	Internal strip-out works and removal of furniture, fixtures and equipment. Decommissioning of services
5	Internal refurbishment works

### 6.2 Site establishment

The proposed construction site arrangement and its accesses are shown in **Figure 6-1**.

**Figure 6-1 Site establishment plan**



Source: Redfern North Eveleigh Precinct Public Domain, Place and Urban Design Report, BatesSmart 2022

The proposed project office and lay-down area will be located south of the CME Building, adjacent to the existing service road (connecting to Little Eveleigh Street | Ivy Lane). As an alternative site office location for the contractor and design team, local shops may also be investigated for short-term rental.

Other site establishment and enabling activities include:

- Perimeter fences will be installed along the western, eastern and northern boundaries of the site to prevent unauthorised access.
- Vehicle access, including loading and deliveries, will predominately be through the existing service road. This access is currently supported by traffic controllers to assist traffic movements in and out of the site and is envisaged would also be provided for the CME Building works.

- Secondary access is identified at the existing driveway access, though usage of this access would be limited to smaller vehicles or with the provision of a temporary kerbside works zone during intensive works periods.
- Pedestrian access (for construction staff) would be provided from Wilson Street through the existing pedestrian access.
- Statutory and contract signage will be located at the Wilson Street frontage and the service road access (from Little Eveleigh Street | Ivy Lane).

### 6.3 Program and working hours

As per the Draft Construction Noise Guideline (EP&A) recommended standard hours for construction work, construction activities are proposed to occur between the hours of 7am to 6pm on weekdays and 8am to 1pm Saturdays, with no work on Sundays or Public Holidays. The work does not involve blasting.

Non-intrusive noise generating work or noise complying with the background +3dBA criteria is also permitted to be undertaken from 7am to 10pm Monday to Friday. No work or ancillary activity is permitted on Saturday afternoons, Sundays or Public Holidays.

Truck filling and truck movements should be scheduled to reduce the noise impact experienced by residential and noise-sensitive receivers in the vicinity and on truck routes.

### 6.4 Construction traffic access and haulage routes

The designated vehicular access point is the service road from Little Eveleigh Street | Ivy Lane. For this scale of the proposed refurbishment and fit-out works, it is not expected that a significant number of heavy vehicles would be generated at this stage. It is envisaged as the construction scope and staging is further refined in the subsequent stages, estimation of detailed heavy vehicle traffic volumes will be undertaken. This estimation (and associated analysis if required) would be a detailed Construction Traffic Management Plan (CTMP) which would be prepared before the construction works commence.

The approved heavy vehicle routes in the vicinity of the CME Building are Cleveland Street and King Street. Heavy vehicles would either turn into Shepherd Street or Abercrombie Street to access the site work zone at Wilson Street.

Given the proximity of the construction site to Redfern station and the frequent bus services along King Street, a proportion of construction workers are not expected to drive and will be expected to arrive on-site via public transport. Some trades will be required to drive with equipment, and parking will be provided within the Redfern North Eveleigh Precinct.

### 6.5 Construction traffic and parking impacts

For this scale of the proposed refurbishment and fit-out works, it is not expected that a significant number of heavy vehicles would be generated at this stage, hence the impacts of construction traffic on the surrounding road network are not expected to be significant. As noted previously, it is envisaged detailed analysis (if required) would occur in subsequent stages once the construction scope and staging are refined. The outcomes would be documented in the Construction Traffic Management Plan (CTMP) which would be prepared before the construction works commence.

The construction heavy vehicles are expected to park within the Redfern North Eveleigh Precinct off the main service road. The size of the works zone will be determined and confirmed at a later stage in the detailed CTMP to be prepared before the construction works. A single on-street parking space could be lost due to the implementation of a temporary works zone (if required), consistent with the loading zone requirement for the CME building as identified in **Section 4.2.2**.

Given the CBD location of the construction site, construction workers are not expected to drive and will be expected to arrive on-site via public transport or park within the Precinct. Hence it is not expected to have any impacts on surrounding on-street parking.

## 6.6 Construction impacts to people who walk and ride

Pedestrian and cyclist access and safety need to be prioritised and alternative routes should be provided where needed. Footpaths (and shared zones) adjacent to work sites, particularly sites with high volumes of construction vehicle movements, are proposed to be traffic controlled to manage the conflict between construction vehicles and pedestrians. This includes the service road access from the proposed shared zone on Little Eveleigh Street near Ivy Lane. Where work sites have an impact on footpaths, consideration will be given to the requirements of all pedestrians and especially users with specific requirements (e.g. elderly, strollers, disabled).

Similarly, for cyclists, traffic controllers will manage the conflict between construction vehicles and cyclists at the service road access from the proposed shared zone on Little Eveleigh Street. The separated cycle lanes on Wilson Street will be largely unaffected by the construction activities, except if the designated secondary vehicle access (existing driveway) is utilised. Usage of this access would be limited to smaller vehicles (which would be consistent with a typical driveway use) or with the provision of a temporary kerbside works zone during intensive works periods.

During the periods when a temporary kerbside works zone is established, pedestrian and cyclist access will be retained (or an alternative route provided if required) depending on the loading requirements. This would be confirmed as part of the CTMP.

## 6.7 Mitigation of impacts

Given the CBD location of the construction site, construction workers are not expected to drive and will be expected to arrive primarily on-site via public transport, with any parking requirements provided off-street within the Precinct. Hence the impacts on on-street parking and the net increase in light vehicle traffic volumes on the surrounding street network are expected to be negligible.

So as not to adversely impact the traffic system during the construction period, the construction traffic is expected to be managed as follows:

- Truckloads would be covered during transportation off-site
- All activities, including the delivery of materials, would not impede traffic flow along local roads
- Materials would be delivered, and spoil removed during standard construction hours
- Avoidance of idling trucks alongside sensitive receivers
- Deliveries would be planned to ensure a consistent and minimal number of trucks arriving at the site at any one time
- The community should be notified of major concrete pour days when heavy vehicle traffic is expected to be higher
- Timing of truck arrivals should be managed to avoid the peak school pick-up and drop-off times.
- Traffic control will be implemented at the service road access from Little Eveleigh Street to manage the conflict with pedestrians and cyclists.

To manage drivers' conduct the following measures are to be implemented:

- All truck movements will be scheduled.
- Vehicles are to enter and exit the site in a forward direction along the travel path shown on delivery maps.
- Drivers are to always give way to pedestrians and cyclists (and will also be guided by traffic controllers at the service road access or secondary access when required).

It is not expected that there will be other major concurrent construction activities. A further review of potential concurrent construction should occur as part of the construction traffic management plan to ensure that this remains the case or that mitigations are proposed.

When required during construction, Road Occupancy Licenses will be requested from the relevant road authority.

## 7.0 Conclusions

Transport for NSW (Transport) is preparing a State Significant Development (SSD) for the heritage conservation and adaptive reuse of the former Chief Mechanical Engineer's Building (CME Building) in North Eveleigh, which is submitted to the Minister for Planning pursuant to Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act).

SCT Consulting was engaged by Transport to carry out a Traffic, Transport and Accessibility Study for the adaptive reuse of the CME Building.

The application seeks consent for the heritage conservation and adaptive reuse of the CME Building, which includes:

- Internal and external heritage conservation works to make the building suitable for adaptive reuse, including painting, repairs and refurbishment of the existing building (primarily internally) and installation of services to support future usage for offices or the like
- Building upgrades to ensure compliance with the Building Code of Australia, including accessibility and fire safety requirements
- Removal of any hazardous building materials
- Minor landscaping works.

No significant additions (except those necessary to facilitate suitable access and fire egress) or substantive demolition of external heritage fabric is envisaged as part of the project. Internal changes comprise the removal of some internal walls and alterations to building fabric to create suitable spaces and compliant paths of travel.

Given the limitation that the planning of the Paint Shop Sub-Precinct is in progress (subject to the approval of a separate planning approval), the toilet block at the back of the CME Building is subject to later stages of development and would not be demolished as part of the refurbishment project. This restricts the area available for any traffic to manoeuvre on-site and to perform forward-in and forward-out movements from and to Wilson Street respectively.

Hence, as an interim measure until the later stages of the Paint Shop Sub-Precinct is approved that permit the removal of the toilet block at the back of the CME Building, this project proposes:

- Zero car park provision on-site
- An on-street loading zone along Wilson Street frontage.

As there is no on-site parking provision, there will be no vehicular access required in the interim for the adaptive reuse of the CME Building. Hence the proposed on-street loading zone at Wilson Street immediate outside of the existing driveway will support loading and unloading for day-to-day deliveries, waste collection as well as a pick-up drop-off area for ride-share vehicles and taxis for any visitors to the CME Building. Under this arrangement, there will be no vehicles crossing the existing cycleway crossover with the existing driveway. The proposed on-street loading zone would cause the loss of two on-street parking spaces and should have negligible impacts on the operations of on-street parking along Wilson Street and the surrounding street network.

People who walk to the site will access the building via a new accessible ramp that connects the existing footpath at Wilson Street and the building entrance. People who ride to the site will access the bicycle parking facilities located at the back of the building via the new accessible ramp.

This traffic and transport impact assessment concludes that:

- Traffic generated by the proposed use of the site is unlikely to have any significant impact on traffic performance on the surrounding road network. The site provides no on-site parking spaces and hence promotes sustainable modes of transport over car usage.
- A strong public transport network exists to support visitors and staff trips to the CME Building.
- It is expected that vehicle-related trips would be limited to 2 trips per peak hour (inclusive of taxi or other ride-sharing services). Consequently, this should not put significant pressure on on-street parking demand.
- The level of construction traffic is expected to be limited. Hence, the impacts of the construction activities and additional delays to the surrounding street network should be minor.
- Construction vehicle access, including loading and deliveries, will predominately be through the existing service road hence minimising the impact on Wilson Street (and existing developments).



## APPENDIX A

# Green Travel Plan and Travel Access Guide



# Chief Mechanical Engineer's (CME) Building - 505 Wilson Street

## Green Travel Plan

Prepared by: Qian Lee

Reviewed by: Andy Yung

12 Sep 2022 | v0.1



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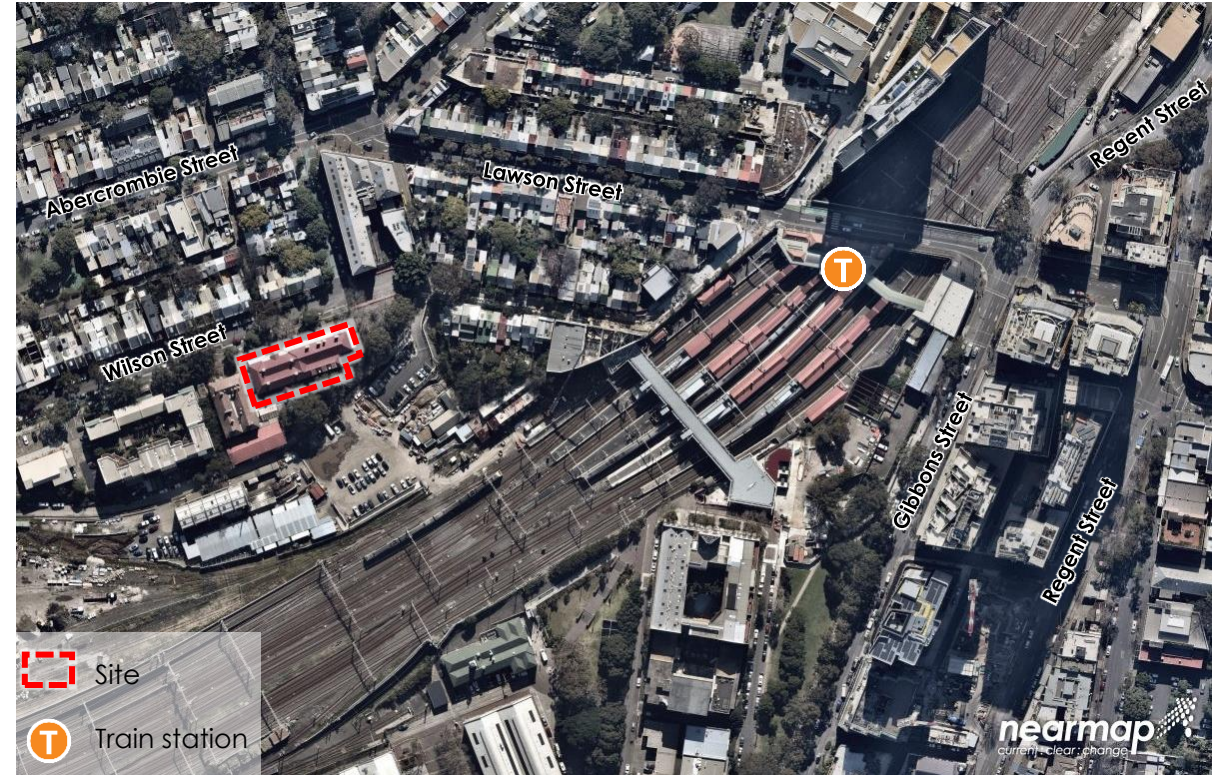
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- 2 WHAT IS A GREEN TRAVEL PLAN?
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- 5 EXISTING TRANSPORT CONDITIONS
- 6 FUTURE CONTEXT
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- 9 TRAVEL ENCOURAGEMENT PROGRAM OPPORTUNITIES
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# Introduction

- TfNSW is preparing a SSD for the refurbishment of the Chief Mechanical Engineers (CME) building at 505 Wilson Street, located within the Paint Shop Sub-precinct as part of the Redfern North Eveleigh State Significant Precinct (SSP). SCT Consulting has been engaged by TfNSW to provide traffic and transport consultancy services for the SSD.
- As part of the SEARS conditions, a Green Travel Plan (GTP) is needed to maximise the use of sustainable travel modes by the future occupants.
- This document provides high-level sustainable travel principles and initiatives based on site context and development nature, which are expected to achieve the development's green travel targets.
- These specific actions would evolve over time in the future subject to conditions of consent, detailed design process, the confirmation of building management and occupants.



Source: Nearmap

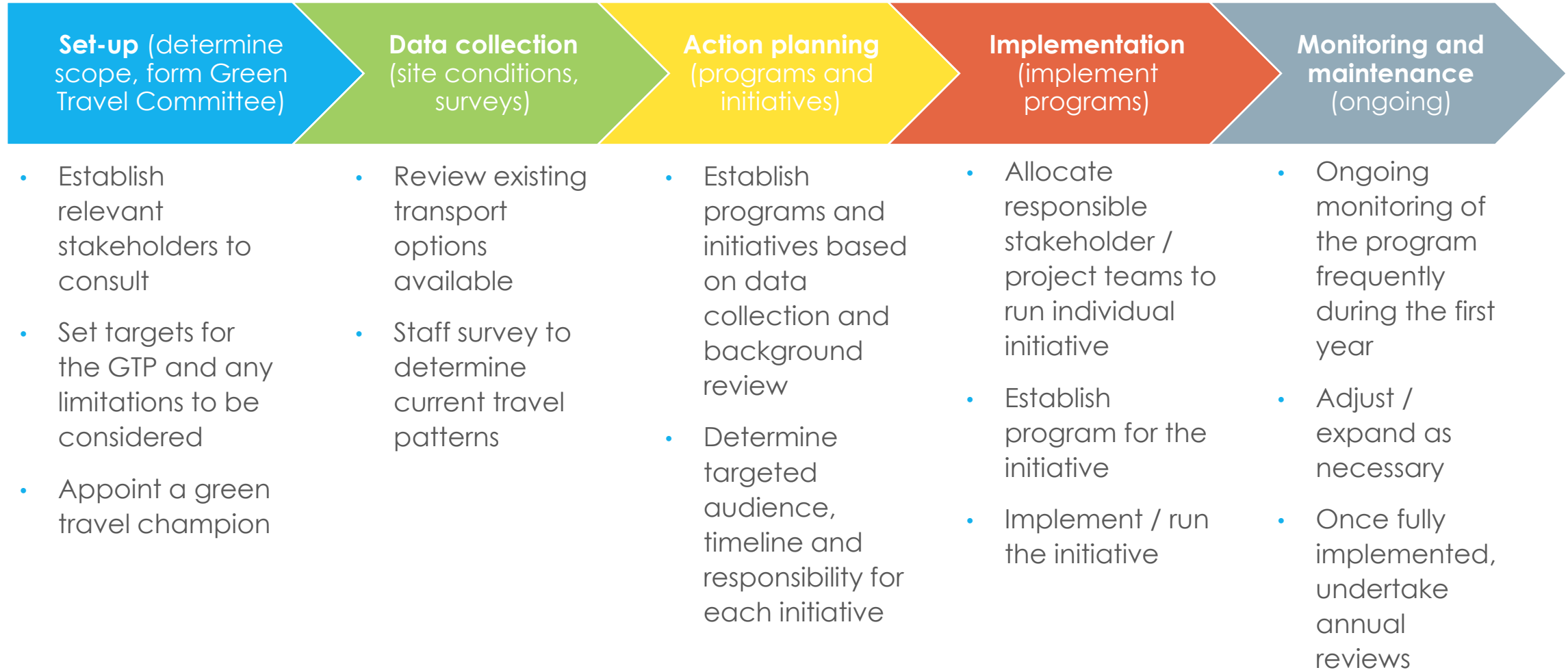


# What is a Green Travel Plan?

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- A tool designed to address an organisation's travel needs and impacts and to provide measures and initiatives that encourages and supports sustainable travel alternatives for the end users.
- A **living document**, meaning it will change over time. This iteration of the Green Travel Plan sits at the very early stages of the overall Green Travel Planning Process (as shown on next page). This plan will requires ownership by stakeholders identified and involved over the different stages, to be effectively implemented.
- Green Travel Plans are sometimes required for the granting of Development Applications across Australia. Their effectiveness can be dependent on communication, ambition, surrounding infrastructure and land-use zoning.
- The subject site in Redfern-Eveleigh benefits from its high-density urban location with a train station within 200m walking distance. In addition, there is no on-site parking proposed. The suggested initiatives in this Green Travel Plan support the development's low dependence on private cars, and will become increasingly prevalent to maximise sustainable travel modes used.

# The Green Travel Planning Process



# Organisational commitment

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Organisational commitment is critical to the success of a green travel plan. Successful green travel plans tend to have:

- **Champions:** staff who are passionate and empowered to organise the activities in the plan
- **Funding:** sufficient budgets to achieve the agreed plan
- **Regular communication:** marketing for the initiatives in the plan helps to increase their profile to staff.
- **Supportive management:** when management regards sustainable travel as an organisational value and lead by example, staff are more likely to make changes.

The future building management and occupants should make a commitment to the green travel plan.

# Existing transport conditions

- The site is within 400m of Redfern Station which is well serviced by the following train lines:
  - T1 (City, Emu Plains, or Richmond)
  - T2 (City, Parramatta, or Leppington)
  - T3 (City, Liverpool, or Parramatta)
  - T4 (Bondi Junction, Waterfall, or Cronulla)
  - T8 (Macarthur to City)
  - T9 (Hornsby to Northshore)
  - Intercity trains to Bathurst, Newcastle, Bomaderry or Port Kembla.
- During the peak hour, there are up to 120 trains operating through the station.
- Bus services are more prevalent east of the site. The closest bus stops are 400-800m away on Gibbons and Regent Street.
- More frequent bus services are found about 800m northwest of the CME Building, along King Street with more than 20 services running along them in the morning peak period



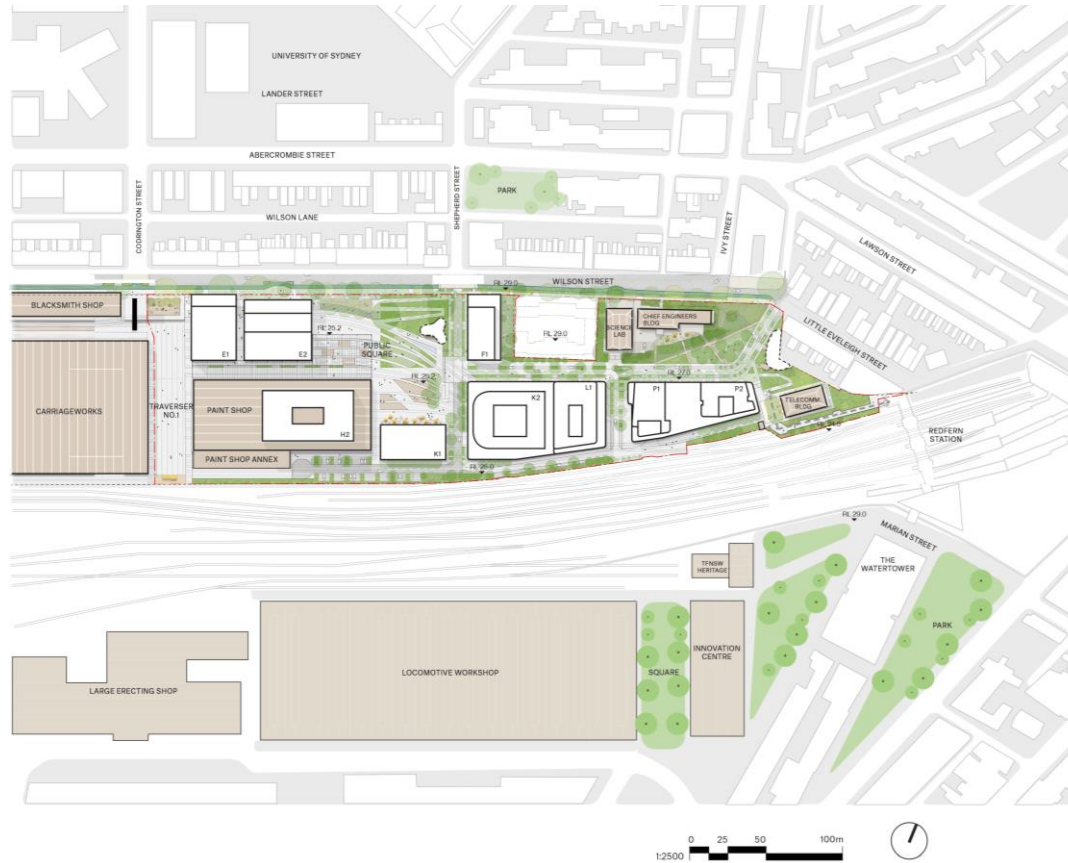


# Existing transport conditions

- The site is directly serviced by a dedicated cycleway along Wilson Street. This connects to an established on or off-road cycling network and shared paths to Central, Redfern, Newtown, and Macdonaldtown stations, University of Sydney, and Australian Technology Park.
- There is high pedestrian demand along Lawson Street and Abercrombie Street.
  - Pedestrian crossings are provided at major intersections of Lawson Street / Abercrombie Street and Abercrombie Street / Shepherd Street
  - Pedestrian refuge islands are provided at Abercrombie Street / Codrington Street.



# Future context – Redfern North Eveleigh Paint Shop Sub-Precinct Vision & Objectives



Source: Indicative Concept Proposal, Bates Smart 2022

1. Encourage and facilitate the increased uptake of sustainable modes (rail, walk and cycle) through improved integration, accessibility and permeability.
2. Minimise car-based impacts to surrounding area and network:
  - Reduction of vehicle trip generation from the North Eveleigh Concept Plan 2008 by at least 40%
  - Constrained parking provisions on-site (<10% of mode share)
3. Balance the on-street environment to provide:
  - Permeable, prioritised and safe environment for customers who walk or cycle
  - Sufficient on-street parking to support mobility-impaired customers, short-turn around parking and on-demand services
  - Activation of the street-level environment throughout the day
  - Provision of dedicated spaces for freight and point-to-point.

These transport visions and objectives are aligned with the *Sustainable Sydney 2030 and Community Strategic Plan*, where a target of increasing trips to work using public transport by 80 per cent, for both residents of the city and those travelling to the city from elsewhere. It also aims to allow at least 10 per cent of total trips to be cycling and 50 per cent by pedestrian movements.

# Target setting

The CME building is located within the Redfern-Chippendale SA2 zone. Based on existing travel mode shares for the SA2 zone, the dominant travel mode to work is public transport (49%). Although the CME building has relatively poor connectivity to public bus services, public transport travel mode shares are still expected to increase in the future due to the CME building's proximity to Redfern Station and its current upgrade to the New Southern Concourse. The aspirational 95% (compared to 64% currently) non-car travel mode targets also leverages on the trend of a majority of trips are within a 5km radius from the SA2 zone. This is indicative of shorter trip durations that can be easily completed on the public transport network, and/or the well-connected cycle network surrounding the site.

To further encourage a reduced reliance on private car travel, no on-site carparking is proposed to encourage travelers to adopt alternative travel modes.

When the site is open, it is expected that staff will have improved access to public transport with a future Sydney Metro station at the Waterloo (~1.2km from the CME building). With the increased urban density and enhanced public transport/cycling infrastructure, staff would be encouraged to use sustainable modes of transport, in line with the vision to reduce dependency on car travel.

Horizon	Mode Share				
	Private car	Public transport	Walking	Cycling	Other
Current (2016 Journey to Work data – Inbound trips into Redfern)	36%	49%	13%		2%
Future (proposed for CME Building)	5%	65%	20%	10%	0%

The proposed mode share targets for the CME Building also exceed those set by the City of Sydney (the Sustainable Sydney 2030 and Community Strategic Plan) where by 2050 2 out of 3 (66.7%) of people working outside of the CBD will use public transport, walk or cycle to travel to and from work.

# Monitoring and Review

The building management / occupants will be responsible to implement a monitoring and review process for the success of green travel initiatives. This will comprise:

- **Annual staff travel survey:** NSW Government provides a template [here](#) for typical questions included in a survey.
- **Adjust targets based on historical performance:** not all plans work as intended. Adjust the targets so that they better align with the change that the organisation is seeing.
- **Adjust initiatives to improve effectiveness:** some initiatives are more successful than others at shifting behaviours. This can often differ from workplace to workplace – it's not a one size fits all. Updating plans on an annual basis helps ensure that the most effective policies are being implemented.

**The green travel plan should be updated at least once per year to remain current.**

Additional resources:

- <http://data.mysydney.nsw.gov.au/files/Travel+Plan+Toolkit.pdf>
- <http://data.mysydney.nsw.gov.au/files/Survey+methods+for+organisations.pdf>
- <https://www.cityofsydney.nsw.gov.au/development-guidelines-policies/travel-planning-guidelines>
- <https://www.connectmpid.com.au/> (inspiration – an example of transport management association)



# Travel encouragement program opportunities

A suite of travel encouragement programs were evaluated to inform the final list of opportunities in the following pages:

Initiative	Are we considering these initiatives for this project? (Yes/No)	Reasons	No. Ref. in next section
<b>Managing Car Use</b>			
Car sharing	No	No on-site carparking spaces provided	N/A
Carpooling program	No	No on-site carparking spaces provided	N/A
<b>Promoting Public Transport</b>			
Travel pass loan schemes	Yes (short term)	Effectiveness	3
Cashout schemes	Yes (short term)	Effectiveness	4
Public transport for business travel	Yes (short term)	Effectiveness	4
<b>Promoting Cycling and Walking</b>			
Provision of bicycle parking and end of trip facilities	Yes (short term)	Effectiveness	5

# Travel encouragement program opportunities

Initiative	Are we considering these initiatives for this project? (Yes/No)	Reasons	No. Ref. in next section
Bicycle fleets	Yes (long term)	Effectiveness	4
Bicycle user groups	No	Future occupants to evaluate if feasible	N/A
Hosting walking and cycling events	Yes (long term)	Effectiveness	6
<b>Other</b>			
Flexible working hours	No	Future occupants to evaluate if feasible	N/A
Tele-conferencing and working from home	Yes (post-COVID normal)	Effectiveness	N/A
Transport Access Guide (TAG)	Yes (short term)	Effectiveness	8
Transport Management Associations (TMA)	Yes (long term)	Effectiveness	7
Travel plan	Yes – this document	Effectiveness	N/A
Maximum parking provision	Yes (informed site planning)	Effectiveness	N/A
10,000 steps per day	Yes	Effectiveness	1
Availability of travel information	Yes	Effectiveness	2

# 1. 10,000 steps per day

## Overview:

- Set challenge over a period of time (recommended four to six weeks)
- Staff members are rewarded for achieving the 10,000-step goal over the set period
- Prizes such as vouchers, team outings, special activity
- Free registration with the 10,000 steps organisation website <https://www.10000steps.org.au/> if desired.

## Investment:

- Staff coordinator
- Prizes

## Stakeholders:

- Staff
- Management

## Evidence:

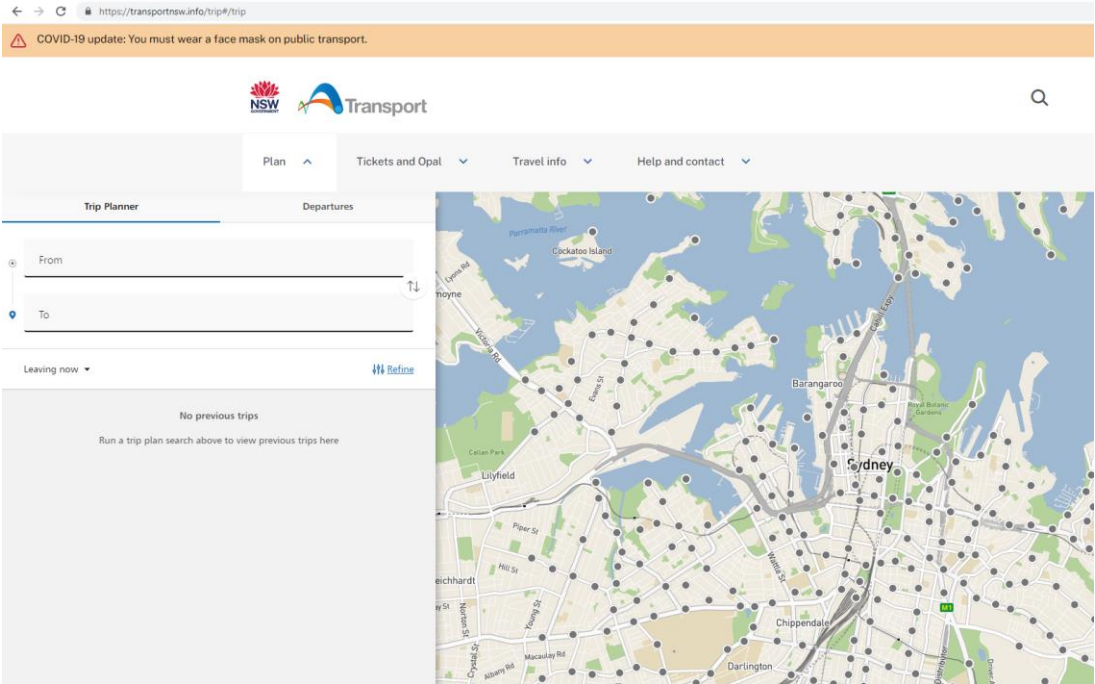
- 93% of organisations reported the challenge to be effective in increasing physical activity in employees.
- 90% of staff enjoyed taking part in the tournament\*.



Source: areksan, unsplash.com


\*Source: <https://www.10000steps.org.au/>

# 2. Availability of travel information


<div><b>Overview:</b><ul style="list-style-type: none"><li>• Add TfNSW trip planner link and travel information to the intranet or company website</li><li>• Inform staff of sustainable transport modes, end-of-trip facilities, and encourage public or active transport use during new starter orientation.</li></ul></div>	<div><p>Source: Transport for NSW</p></div>
<div><b>Investment:</b><p>N/A</p></div>	
<div><b>Stakeholders:</b><ul style="list-style-type: none"><li>• Staff</li><li>• Management</li></ul></div>	
<div><b>Evidence:</b><p>N/A</p></div>	



# 3. Travel pass loan scheme


<b>Overview:</b> <ul style="list-style-type: none"><li>Businesses may consider subsidising staff travel passes to increase public transport use.</li><li>Alternatively, staff can pay for their own annual travel pass through their salary, spreading the cost over the year to make it more affordable.</li></ul>	 <p>Source: ConvertKit, unsplash.com</p> <p>*Source: <a href="https://www.brisbanetimes.com.au/national/queensland/brisbane-city-council-staff-to-salary-sacrifice-commutes-20161011-grzilq.html">https://www.brisbanetimes.com.au/national/queensland/brisbane-city-council-staff-to-salary-sacrifice-commutes-20161011-grzilq.html</a><a href="https://translink.com.au/tickets-and-fares/ticket-types/business/bus-travel-benefit">https://translink.com.au/tickets-and-fares/ticket-types/business/bus-travel-benefit</a></p>
<b>Investment:</b> <ul style="list-style-type: none"><li>Opal card</li></ul>	
<b>Stakeholders:</b> <ul style="list-style-type: none"><li>Staff</li><li>Management</li></ul>	
<b>Evidence:</b> <ul style="list-style-type: none"><li>Since 2017, public servants in Queensland can use pre-tax dollars to pay for their bus commute saving hundreds of dollars*.</li></ul>	

# 4. Business trips in sustainable transport modes


<p><b>Overview:</b></p> <ul style="list-style-type: none"><li>• Organisations may consider having bicycle fleets which employees can use for local trips.</li><li>• Employees are given the option to 'cashout' of their company vehicle and opt to use public transport.</li><li>• Organisations can promote public transport as the first preference for business travel. This should be supported by employees having access to travel passes.</li></ul>	
<p><b>Investment:</b></p> <ul style="list-style-type: none"><li>• Bicycles</li><li>• Opal Card</li></ul>	
<p><b>Stakeholders:</b></p> <ul style="list-style-type: none"><li>• Staff</li><li>• Management</li></ul>	
<p><b>Evidence:</b></p> <ul style="list-style-type: none"><li>• N/A</li></ul>	

Source: [Croatian Post Buys E-bike Fleet](#) | ECF

# 5. Provision of bicycle parking and end of trip facilities

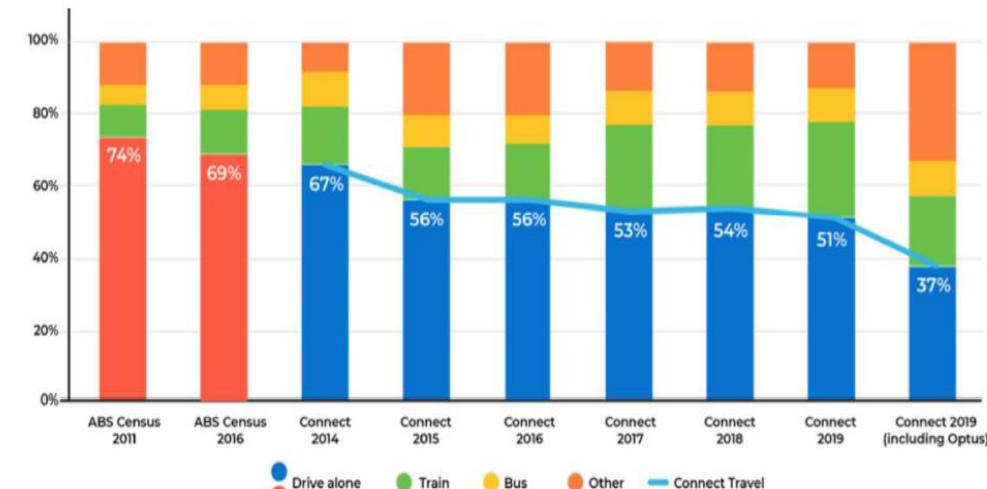
<p><b>Overview:</b></p> <ul style="list-style-type: none"><li>• The site has secure bicycle parking and end of trip facilities which enable staff to cycle to site.</li><li>• The site is located within relatively high-density urban area. For some experienced cyclists, this journey could form part of their fitness regime.</li><li>• The recommended bicycle parking rates are: one space every 400 m<sup>2</sup> based on City of Sydney DCP (2012)</li></ul>	 <p>Photographer: David Emrich, unsplash.com</p> <p><i>*Source: Bauman, A., et al (2008) Cycling: getting Australia moving – barriers, facilitators and interventions to get more Australians physically active through cycling</i></p>
<p><b>Investment:</b></p> <ul style="list-style-type: none"><li>• Ongoing cleaning and maintenance</li></ul>	
<p><b>Stakeholders:</b></p> <ul style="list-style-type: none"><li>• Staff</li><li>• Management</li></ul>	
<p><b>Evidence:</b></p> <ul style="list-style-type: none"><li>• A lack of secure bicycle parking is regarded a barrier to the uptake of cycling. Increasing the rate of cycling is linked to increased health, economic and environmental benefits*</li></ul>	

# 6. Hosting walking and cycling events

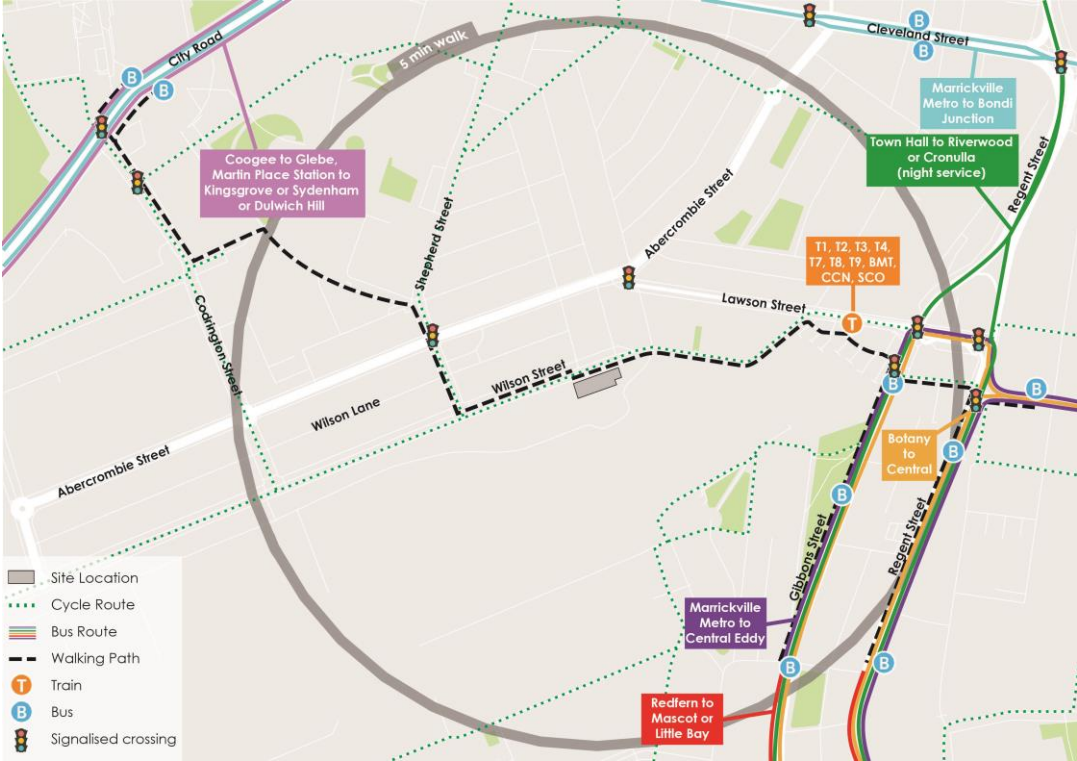
<div><b>Overview:</b><ul style="list-style-type: none"><li>Coordinated through Bicycle Network as a day where staff are encouraged to ride, walk, scoot or skate to work</li><li>Can involve educational class presentations and awards or bicycle maintenance workshops</li><li>Register: <a href="#">Overview</a>   <a href="#">Ride2Work</a>   <a href="#">Bicycle Network</a></li></ul></div>	<div></div> <div><p>Source: Natpol Rodbang</p><p>* Source: Making school travel plans work -Experience from English Case Studies (Carey Newson, Sally Cairns &amp; Adrian Davis , 2010), carried out for the Department of Transport</p></div>
<div><b>Investment:</b><ul style="list-style-type: none"><li>Staff coordinator (~4 hours preparation)</li><li>Cost of prizes</li><li>Grant application of up to \$5,000 from Bicycle Network (refer link above)</li></ul></div>	
<div><b>Stakeholders:</b><ul style="list-style-type: none"><li>The Bicycle Network</li><li>Staff</li></ul></div>	
<div><b>Evidence:</b><ul style="list-style-type: none"><li>The implementation of cycling initiatives increased cycling from 2% to 6% at one school in the UK*</li></ul></div>	



# 7. Travel Management Associations (TMA)

<div><b>Overview:</b><ul style="list-style-type: none"><li>• Transportation Management Associations are often public-private partnerships, formed by businesses with council and government support.</li><li>• A Transportation Management Association would work with its members to address transport issues through area-wide policy initiatives and pooling of resources</li><li>• It will provide the leadership, resources, and plan for initiatives to be realised</li></ul></div>	<div><b>*Results of the introduced of Connect TMA at Macquarie Park</b></div>  <table><tr><th>Year</th><th>Drive alone</th><th>Train</th><th>Bus</th><th>Other</th><th>Connect Travel</th></tr><tr><td>ABS Census 2011</td><td>74%</td><td>10%</td><td>5%</td><td>11%</td><td>26%</td></tr><tr><td>ABS Census 2016</td><td>69%</td><td>12%</td><td>6%</td><td>13%</td><td>30%</td></tr><tr><td>Connect 2014</td><td>67%</td><td>15%</td><td>7%</td><td>11%</td><td>35%</td></tr><tr><td>Connect 2015</td><td>56%</td><td>18%</td><td>8%</td><td>18%</td><td>40%</td></tr><tr><td>Connect 2016</td><td>56%</td><td>18%</td><td>8%</td><td>18%</td><td>40%</td></tr><tr><td>Connect 2017</td><td>53%</td><td>20%</td><td>9%</td><td>18%</td><td>40%</td></tr><tr><td>Connect 2018</td><td>54%</td><td>20%</td><td>9%</td><td>17%</td><td>40%</td></tr><tr><td>Connect 2019</td><td>51%</td><td>22%</td><td>10%</td><td>17%</td><td>40%</td></tr><tr><td>Connect 2019 (including Optus)</td><td>37%</td><td>25%</td><td>12%</td><td>26%</td><td>63%</td></tr></table> <p>Source: Cohop by Connect Transportation Management Association (2020)</p>	Year	Drive alone	Train	Bus	Other	Connect Travel	ABS Census 2011	74%	10%	5%	11%	26%	ABS Census 2016	69%	12%	6%	13%	30%	Connect 2014	67%	15%	7%	11%	35%	Connect 2015	56%	18%	8%	18%	40%	Connect 2016	56%	18%	8%	18%	40%	Connect 2017	53%	20%	9%	18%	40%	Connect 2018	54%	20%	9%	17%	40%	Connect 2019	51%	22%	10%	17%	40%	Connect 2019 (including Optus)	37%	25%	12%	26%	63%
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<div><b>Investment:</b><ul style="list-style-type: none"><li>• Staff administration to coordinate with other companies in the area – The role may be done by a dedicated Travel Management Association</li></ul></div>																																																													
<div><b>Stakeholders:</b><ul style="list-style-type: none"><li>• Employers</li><li>• Staff</li><li>• Public sector organisations</li></ul></div>																																																													
<div><b>Evidence:</b><p>N/A</p></div>																																																													

# 8. Provision of a Travel Access Guide (TAG)

<div><b>Overview:</b></div> <ul style="list-style-type: none"><li>• Prepare a Travel Access Guide (map with descriptive text) that provides information for staff with the most sustainable to access the site.</li><li>• It may be helpful to have maps of other parts of the network, not just around the site, so staff are aware of alternative access points to the public transport network.</li></ul>	 <p>Source: SCT Consulting</p>
<div><b>Investment:</b></div> <ul style="list-style-type: none"><li>• Staff administration (1–2 days)</li><li>• Cost of printing (if required)</li></ul>	
<div><b>Stakeholders:</b></div> <ul style="list-style-type: none"><li>• Staff</li><li>• Management</li></ul>	
<div><b>Evidence:</b></div> <ul style="list-style-type: none"><li>• A TAG clearly communicates public transport services, walking distances and crossing points in a map format which is easy to interpret</li></ul>	

