



Australian Technology Park Locomotive Shed Redevelopment Green Travel Plan

Client // Mirvac Projects Pty Ltd
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Australian Technology Park

Locomotive Shed Redevelopment

Green Travel Plan

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A-Dr	27/07/17	Draft	Sam Janda	Kane Williams	Kane Williams	Kane Williams
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Table of Contents

1. Introduction	1
1.1 Background	1
1.2 Construction Worker Volumes	1
2. Green Travel Plan	3
2.1 What is a Green Travel Plan	3
2.2 GTP Format	3
3. Existing Conditions	4
3.1 Site Description	4
3.2 Road Network	5
3.3 Public Transport	5
3.4 Pedestrian Infrastructure	7
3.5 Cycle Infrastructure	7
4. Methods of Encouraging Mode Shift	9
4.1 Introduction	9
4.2 Site Specific Measures	9
5. Management of the Plan	11
5.1 Monitoring of the GTP	11
5.2 Additional Measures	11
6. Summary	12

Appendices

A: Transport Access Guide

Figures

Figure 1.1:	Number of Site Personnel per Month	1
Figure 1.2:	Arrival and Departure Volumes of Site Personnel – Peak Month	2
Figure 3.1:	Site Location	4
Figure 3.2:	Cycle Network	8
Figure 4.1:	Work Zone and Equipment Drop-off Locations	10

Tables

Table 3.1:	Rail Service Provision for Redfern Station	6
Table 3.2:	Rail Service Provision Erskineville Station	6

Table 3.3:	Rail Service Provision for Macdonaldtown Station	6
Table 3.4:	Bus Service Provision	6
Table 3.5:	Availability of bus services in vicinity of the subject site	6

1. Introduction

1.1 Background

This Green Travel Plan (GTP) has been prepared to enable construction works at the Australian Technology Park (ATP). The GTP accompanies a State Significant Development (SSD) application relating to the redevelopment of the Locomotive Shed.

The redevelopment involves the interior demolition, structural renovations, and fit-out of the Locomotive Shed for retail and mixed-uses. The project is scheduled to be carried out in stages with works to commence in early 2019 and to be completed by early-2021.

1.2 Construction Worker Volumes

The number of construction workers at the site would vary throughout each stage of the project as shown in Figure 1.1. It is anticipated that the peak number of personnel on site would occur around early 2019, where cumulative works from all three sites would see approximately 760 workers coming to the ATP site in a day. The arrival and departure patterns of workers during this peak month are shown in Figure 1.2.

Figure 1.1: Number of Site Personnel per Month

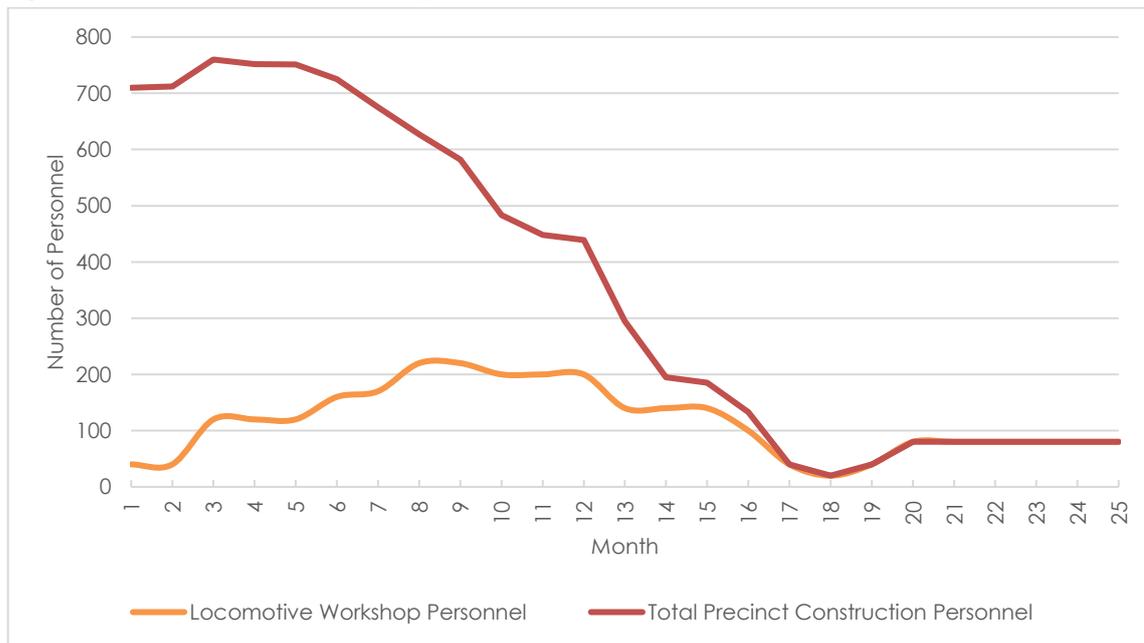
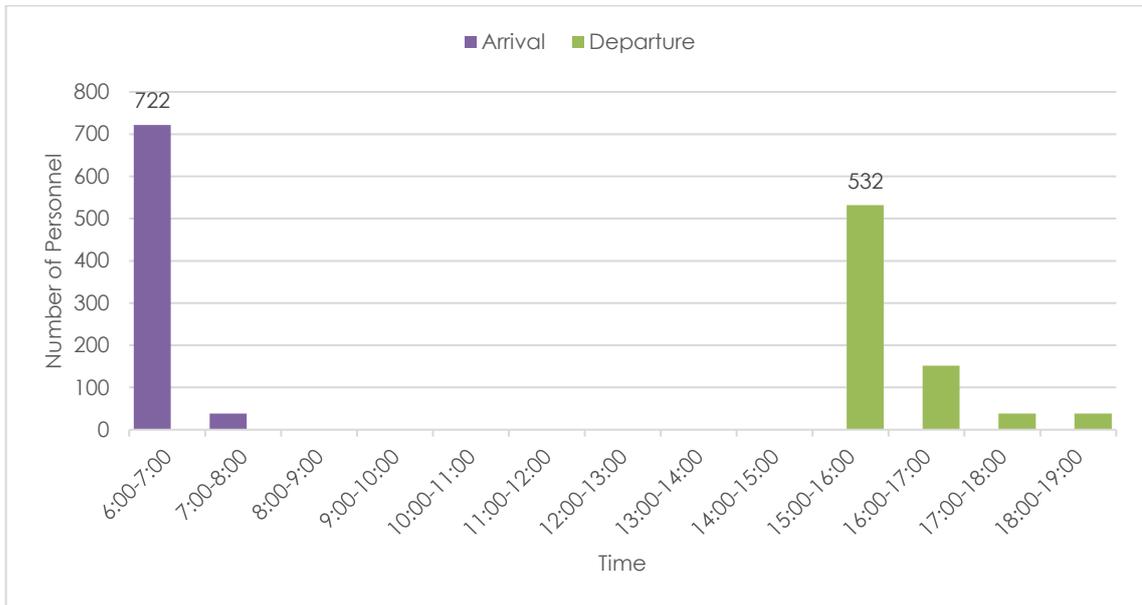


Figure 1.2: Arrival and Departure Volumes of Site Personnel – Peak Month



2. Green Travel Plan

2.1 What is a Green Travel Plan

A GTP is a package of measures aimed at promoting sustainable travel and reducing reliance on the private car. The travel plan would promote the use of transport other than the private car, provide choice for workers to travel to and from the site which is more sustainable and environmentally friendly.

A GTP would be implemented at the subject site to ensure that workers do not drive to the site and parking in nearby residential streets and that workers will be actively encouraged to use the public transport network.

A GTP aims ensure that the transport infrastructure, services and policies both within and external to the site are tailored to the users and co-ordinated to achieve a sustainable outcome.

This GTP will clearly benefit from the high level of public transport accessibility available from the site.

2.2 GTP Format

The GTP will capitalise on the availability of the sustainable transport options available to the site. Indeed, the site's convenient location close to so many sustainable transport services is such that the 'non' car mode share is expected to be relatively high.

The GTP itself will take the form of a package of easy to understand travel information which will be included in the information pack provided to workers as part of their induction. The pack will also include a Transport Access Guide (TAG).

TAGs provide customised travel information for people travelling to and from a particular site using sustainable forms of transport – walking, cycling and public transport. It provides a simple quick visual look at a location making it easy to see the relationship of site to train stations, light rail stations, bus stops and walking and cycling routes.

Such TAGs encourage the use of non-vehicle mode transport and can reduce associated greenhouse gas emissions and traffic congestion while improving health through active transport choices.

They can take many forms from a map printed on the back of business cards or envelopes and with compliments slips to more comprehensive information. Best practice suggests that the information should be as concise, simple and site centred as possible and where possible provided on a single side/sheet. If instructions are too complex, residents are likely to ignore them.

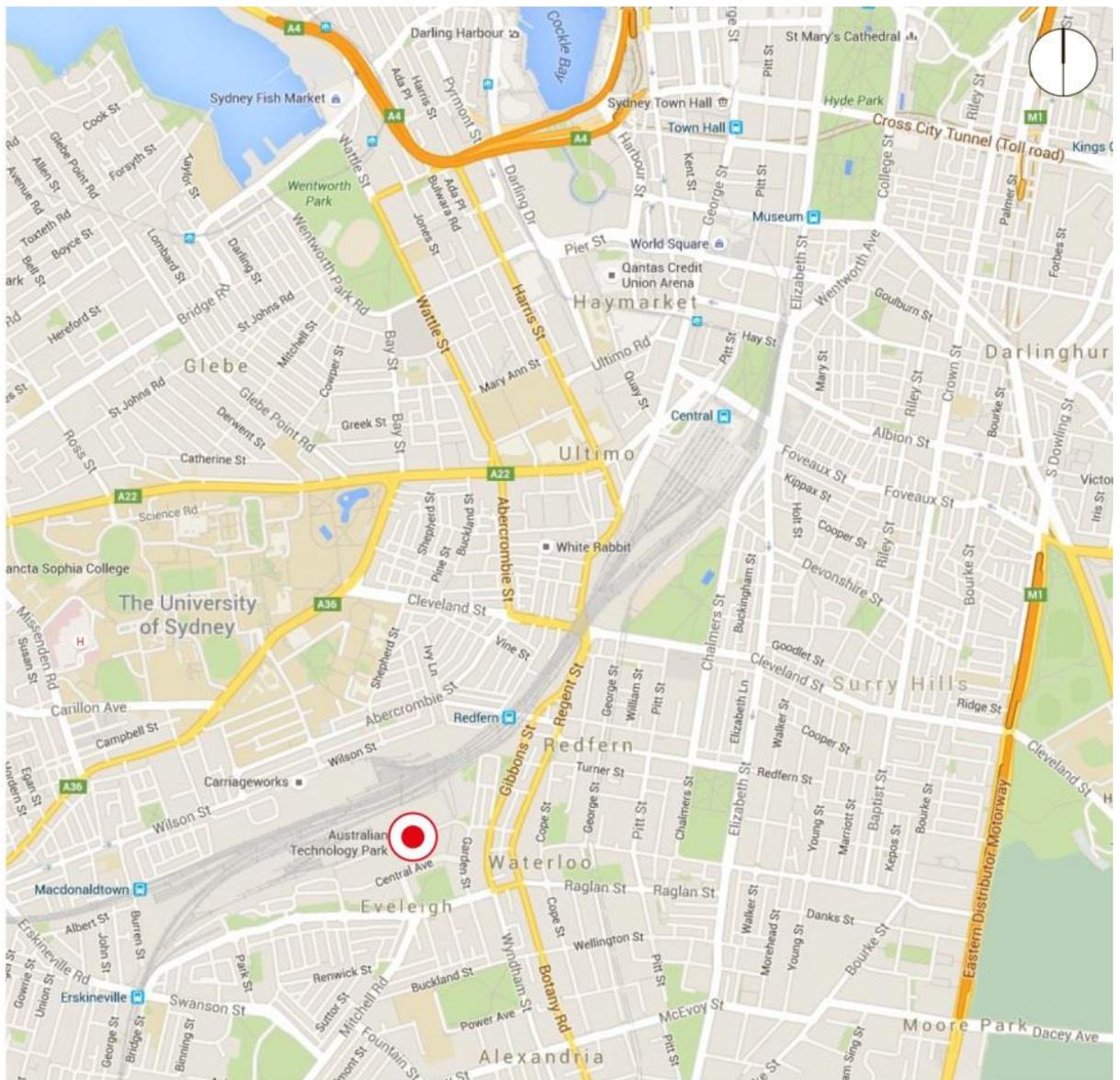
The TAG provided in **Appendix A** provides a site centred guide to the available transport options together with links to these facilities both in terms of route and time.

3. Existing Conditions

3.1 Site Description

The ATP site is strategically located approximately 5km south of the Sydney CBD, 8km north of Sydney airport and within 200m of Redfern Railway Station. The site, with an overall area of some 13.2 hectares, is located within the City of Sydney local government area (LGA). Refer to Figure 3.1 below for a graphic representation of the site location and context.

Figure 3.1: Site Location



● The Site

3.2 Road Network

The subject site is generally bounded by local streets with Garden Street and Cornwallis Street located to its east and Henderson Road located to its south. On the site's northern boundary runs the railway line. The ATP site is accessed by two internal roads, namely at Central Avenue from Garden Street and Davy Road from Henderson Road. Further, access to the Locomotive Workshop is gained via Locomotive Street which is boom gate controlled. A description of the roads in the immediate vicinity of the site is summarised below.

Henderson Road is a two-way road aligned in an east-west direction. Henderson Road is a four-lane road to the east of Davy Road and a two-lane road to the west of Davy Road. Henderson Road, with the exception of the section between Mitchell Road and Wyndham Street, is owned and controlled by City of Sydney Council. The section between Mitchell Road and Wyndham Street is a regional road which is owned by Road and Maritime Services (RMS), but maintained by Council with funding from the State Government. At intersections, Henderson Road includes auxiliary turning lanes. Kerbside parking lanes are also available on both sides of the road. It contains a carriageway width of 14 to 17 metres within an approximately 25 metre road reserve.

Garden Street is a two-way, two-lane local road aligned in the north-south direction. It has a 12 metre wide carriageway with kerbside parking within a 25 metre wide road reserve. North of Central Avenue the carriageway widens to allow 90 degree parking on the western side of the road.

Boundary Street runs in an east-west alignment from the intersection of Garden Street and Cornwallis Street towards Gibbons Street/Regent Street. Boundary Street is a two way, two lane road with no kerbside parking between Garden Street and Gibbon Street.

Cornwallis Street continues in a north-south alignment from Garden Street to Redfern Station. Cornwallis Street is a one-way local road in the southbound direction configured with a 6 metre carriageway within a 12 metre wide road reserve. Kerbside parking is permitted on the eastern side of the road.

Locomotive Street is an internal two-way road configured with kerb along its southern side and bollards and planter boxes along the northern side, on a 6m wide carriageway.

Central Avenue is an internal two-way road configured with two lanes separated by a central median, on a 20 metre wide carriageway and 30 metre wide road reserve.

Davy Road is an internal two-way road configured with four lanes separated by a central median on a 15 metre carriageway and a 25 metre wide road reserve. At the intersection with Henderson Road, Davy Road includes an additional southbound, right turn lane.

Locomotive Street, Central Avenue and Davy Road are private roads.

3.3 Public Transport

3.3.1 Train Services

The ATP is surrounded and accessible by three train stations: Redfern Station, Erskineville Station and Macdonaldtown Station.

Redfern Station

Redfern Station is located approximately 300m north-east of the ATP site and is within a 4-minute walk. The station is a major hub in the Sydney Train network, with frequent services on four rail lines,

namely T1 North Shore, Northern & Western Line, T2 Airport, Inner West & South Line, T3 Bankstown Line, T4 Eastern Suburbs & Illawarra Line and T8 Macarthur Line. The services are shown in Table 3.1.

Table 3.1: Rail Service Provision for Redfern Station

Lines	Frequency Peak Period	Frequency Off Peak
T1 North Shore, Northern & Western Line	2-3 minutes	3-4 minutes
T2 Inner West and Leppington Line	2-3 minutes	5-15 minutes
T3 Bankstown Line	8 minutes	8-10 minutes
T4 Eastern Suburbs & Illawarra Line	4 minutes	10 minutes
T8 Macarthur Line	12 – 15 Minutes	N/A

Data Source: www.transportnsw.info (accessed 10 January 2019)

Erskineville Station

Erskineville Station is located approximately 900 metres south-west of the ATP and is within a 12-minute walk. The station is serviced frequently by the T3 Bankstown Line (via Lidcombe) and supplemented by the T2 City Circle via Central Line (which begins and ends at Lidcombe) at night. The services and frequency for Erskineville Station are shown in Table 3.2.

Table 3.2: Rail Service Provision Erskineville Station

Lines	Frequency Peak Period	Frequency Off Peak
T2 Inner West and Leppington	N/A	30 minutes
T3 Bankstown Line	10-12 minutes	15 minutes

Data Source: www.transportnsw.info (accessed 10 January 2019)

Macdonaldtown Station

Macdonaldtown Station is located approximately 700 metres directly west of the ATP, however an extensive detour for pedestrians is required due to the railway line and maintenance yards, resulting in a walk time of approximately 15 minutes. Macdonaldtown Station is serviced mainly by the T2 Inner West and Parramatta Line with the T3 Bankstown Line to Liverpool. Services for Macdonaldtown Station are shown in Table 3.3.

Table 3.3: Rail Service Provision for Macdonaldtown Station

Lines	Frequency Peak Period	Frequency Off Peak
T2 Inner West and Leppington	15 minutes	15 minutes
T3 Bankstown (to Liverpool)	1 per day (AM peak only)	N/A

Data Source: www.transportnsw.info (accessed 10 January 2019)

3.3.2 Bus Services

Regular scheduled bus services also service the area. Bus stops are located within a 2 minute walking distance from the site including on Henderson Road and Wyndham Street.

The available bus services are summarised in Table 3.4.

Table 3.4: Bus Service Provision

Table 3.5: Availability of bus services in vicinity of the subject site

Route	Description	Location of Stop	Frequency	
			Peak	Off-Peak
301	Eastgardens to Redfern via Mascot	Wyndham Street at Boundary Street	15 mins	30 mins
302	Eastgardens to Redfern via Kingsford		N/A	60 mins

303	Sans Souci to Redfern via Mascot		15 mins	60 mins
305	Mascot to Redfern		30 mins	N/A
308	Marrickville Metro to Sydney CBD		30 mins	30 mins
309	Port Botany to Sydney CBD		10 mins	12 mins
309x	Port Botany to Sydney CBD		10 mins	N/A
355	Bondi Junction to Marrickville Metro	Alexandria Park, Wyndham Street	20-30 mins	20-30 mins

As can be seen from the above, the site is located in easily walking distance to existing public transport services with regular and high frequency services.

3.4 Pedestrian Infrastructure

Pedestrian footpaths are located on both sides of all streets, surrounding and internal to the site. Public roads include footpath widths of 1.5-2 metres along Henderson Road, and 2.5 metres along Garden Street. The site's internal roads, Central Avenue and Davy Road contain footpaths of 3 to 4 metres in width which are connected to pedestrian only spaces within the site.

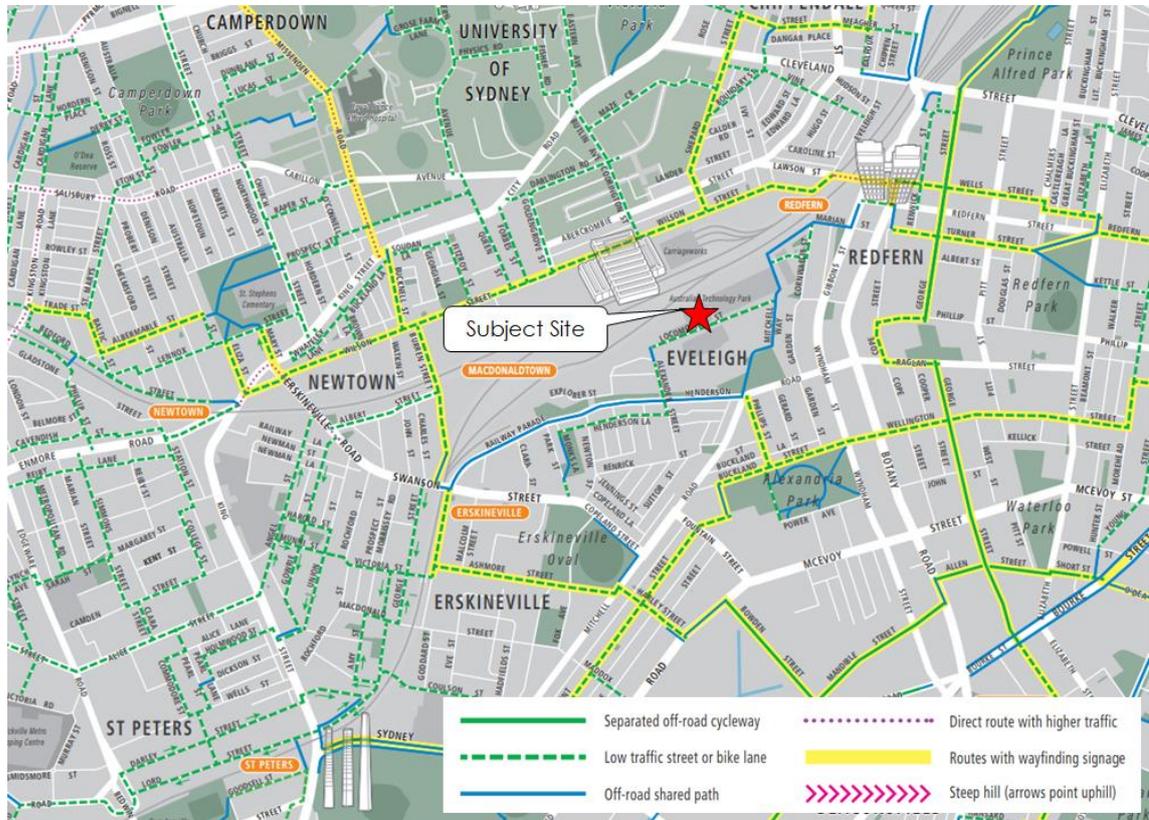
Marked foot crossings are provided at all signalised intersections within the area including along Henderson Road, and on the western and southern legs of the Wyndham and Garden Street intersection, which is located on the way to Redfern Railway Station from the site.

3.5 Cycle Infrastructure

The ATP site is well situated within Sydney's cycle network with cycle routes surrounding the site and an off-road cycle route passing the site itself. A shared path between Henderson Road and Cornwallis Road runs through the site via the Vice Chancellors Oval and Mitchell Way (internal road).

The bicycle network surrounding the site is shown in Figure 3.2.

Figure 3.2: Cycle Network



Source: <http://cdn.sydneycycleways.net/wp-content/uploads/2014/07/24231141/Sydney-Cycling-Map-Feb-2019-v1.3-WEB.pdf> (accessed 28 March 2019)

4. Methods of Encouraging Mode Shift

4.1 Introduction

The location of the site, in terms of its close proximity to a wide range of sustainable transport, is a key attribute in the justification of the works.

The GTP will then put in place measures to further influence the travel patterns of workers travelling to the ATP with a view to encouraging modal shift away from cars.

A Travel Plan Coordinator (TPC) will be appointed and will be responsible for the implementation of the GTP including regular monitoring and updating of the plan as required. The TPC will be a Mirvac representative.

4.2 Site Specific Measures

The following measures would be implemented to encourage workers to choose 'non-car' modes to commute to work:

- A key focus with site inductions for new personnel working at ATP is to clarify that parking restrictions will be strictly enforced. Construction staff are not permitted to park on public roads within the vicinity of the site.
- On commencing work on the project, all workers are to be instructed that public transport is to be used to access the site with bus and light rail timetables for the local area being made available and prominently displayed on site (e.g. on notice boards, flyers etc.) the public transport information is to be in the form of a TAG.
- Workers will be instructed not to use on-street parking near the site or off-street parking at the Channel 7 building.
- Sub-contractors are to be instructed to provide a TAG to each worker as part of the induction program.
- Parking restrictions and requirements within the site are to be included in contract documents between Mirvac and its sub-contractors and are to be reinforced with contractor employees during regular site meetings and toolbox talks.
- Sub-contractors will be consulted to inform them that the amenity of the existing local community is to be preserved and promote alternate transport methods to their employees
- Provision of a drop-off zone for construction workers to bring tools and equipment to site. The designated pick-up/drop-off points will be limited to during construction hours only and will not be available outside of these periods. The pick-up/drop-off facility will differ depending on construction stage. This includes:
 - Whilst structure is being erected, drop-off points will be provided in the designated construction zones. This will be managed by traffic marshals, similarly to other construction traffic; or
 - During fitout and finishes, pick-up and drop-off will occur through gates which are provided for all other construction vehicles.
 - The drop-off points will generally align with work zone locations on Locomotive Street and on the access road to the east of the site (refer 4.1)
- Employers should provide travel information and encourage employees/subcontractors who cannot access the public transport network directly to drive, preferably by

carpooling with other employees, to train stations that have parking capacity and then catching the train to Redfern or Erskineville Station.

All the above measures incorporated into the site induction program and promoted regularly at toolbox talks and to sub-contractors as they commence works.

Figure 4.1: Work Zone and Equipment Drop-off Locations



5. Management of the Plan

5.1 Monitoring of the GTP

There is no standard methodology for this but it is suggested that the GTP be monitored to ensure that it is achieving the desired benefits and modify it if required. It will not be possible at this stage to state what additional modifications might be made as this will depend upon the circumstances prevailing at that time.

Monitoring methodology will involve an anonymous travel survey of workers on site by the TPC to assess the general mode share of construction workers and the reasons for their choice of mode share.

The travel survey is to be conducted within two months of the commencement of construction works. It may be carried out at a compulsory toolbox meeting. The survey would include the following queries:

1. How do you typically travel to the ATP site? (tick boxes)
 - Drive
 - Car passenger (carpooling)
 - Bus/ Train
 - Dropped-off/ picked-up
 - Cycle
 - Walk
2. Where do you travel from/ live? Please state your postcode or suburb.
3. If you drive, please state your reasons for choosing to drive.
4. If you drive, where do you typically park?
 - On-street
 - Channel 7 building
 - Other. Please specify _____

A survey within two months of commencement of works will allow an understanding of the travel patterns of workers early in the construction period, when the worker volumes would be low (see Figure 1.1).

The GTP is required to be updated to reflect the results of the survey with additional measures introduced where the percentage of workers driving is considered high, noting that a zero percent modal share of drivers is desired.

The survey would then be repeated and GTP updated, every six months, to monitor the success of the GTP initiatives.

5.2 Additional Measures

Where the survey results indicate a notable percentage of car usage, additional measures would be introduced to the GTP. These measures would be identified for the updated GTP following completion of the workers travel survey and an understanding of travel behaviour. Some initiatives that may be considered include:

- shuttle bus(es) from key locations to the construction site
- pick-up/ drop-off services to workers living in remote locations
- consultation with transport authorities for discounted public transport tickets
- supply of free Opal cards or Opal card credit to workers.

6. Summary

- i A Travel Plan Coordinator (TPC) will be appointed and will be responsible for the implementation of the GTP.
- ii The following measures would be implemented to encourage workers to choose 'non-car' modes to commute to work:
 - A key focus with site inductions for new personnel working at ATP is to clarify that parking restrictions will be strictly enforced.
 - On commencing work on the project, all workers are to be instructed that public transport is to be used to access the site with bus and light rail timetables for the local area being made available and prominently displayed on site (e.g. on notice boards, flyers etc.). The public transport information is to be in the form of a TAG.
 - Workers will be instructed not to use on-street parking near the site or off-street parking at the Channel 7 building.
 - Sub-contractors are to be instructed to provide a TAG to each worker as part of the induction program.
 - Parking restrictions and requirements within the site are to be included in contract documents between Mirvac and its sub-contractors and are to be reinforced with contractor employees during regular site meetings and toolbox talks.
 - Sub-contractors will be consulted to inform them that the amenity of the existing local community is to be preserved and promote alternate transport methods to their employees.
 - Appropriate drop-off arrangements will be organised by Mirvac at the construction site (e.g. within a Works Zone) for workers who are required the use of a car for moving tools and equipment.
- iii A travel survey will be carried out within two months of commencement of construction works to establish the travel patterns of construction workers travelling to the ATP. The GTP is to be updated to reflect the results of the survey and introduce additional measures if required.
- iv Following this, the travel survey is to be repeated every six months and GTP updated accordingly.

Appendix A
Transport Access Guide



By Bicycle: The ATP site is well situated within Sydney's cycle network with cycle routes surrounding the site. Of note is a shared path which runs between Henderson Road and Cornwallis Road across the ATP (via the Vice Chancellors Oval and Mitchell Way).



As Pedestrian: ATP is within a 5 to 10 minute walk from Redfern Train Station. There are also public bus stops within 5 minute walk. Further public transport hubs include Erskineville and Macdonaldtown Train Stations



Opal Card: Opal cards are available at news agents within the local area. You can also order your Opal card online and enable automatic top-ups at opal.com.au The Opal card is an easy, convenient way of paying for your travel on public transport. It's the only card you'll need to get around on all public transport including trains, ferries, buses and light rail.



Plan your trip at transportnsw.info/plan

To check out the full range of travel planning apps available, visit www.transportnsw.info/apps

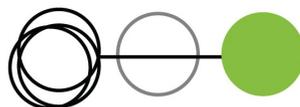
For further public transport information go to www.transportnsw.info or call 131 500

CONTACT

Mirvac Site Manager

Ph: 0478 317 970

Prepared By



GTA consultants



Transport Access Guide

How to travel to and from
**The Australian Technology Park (ATP),
Eveleigh**

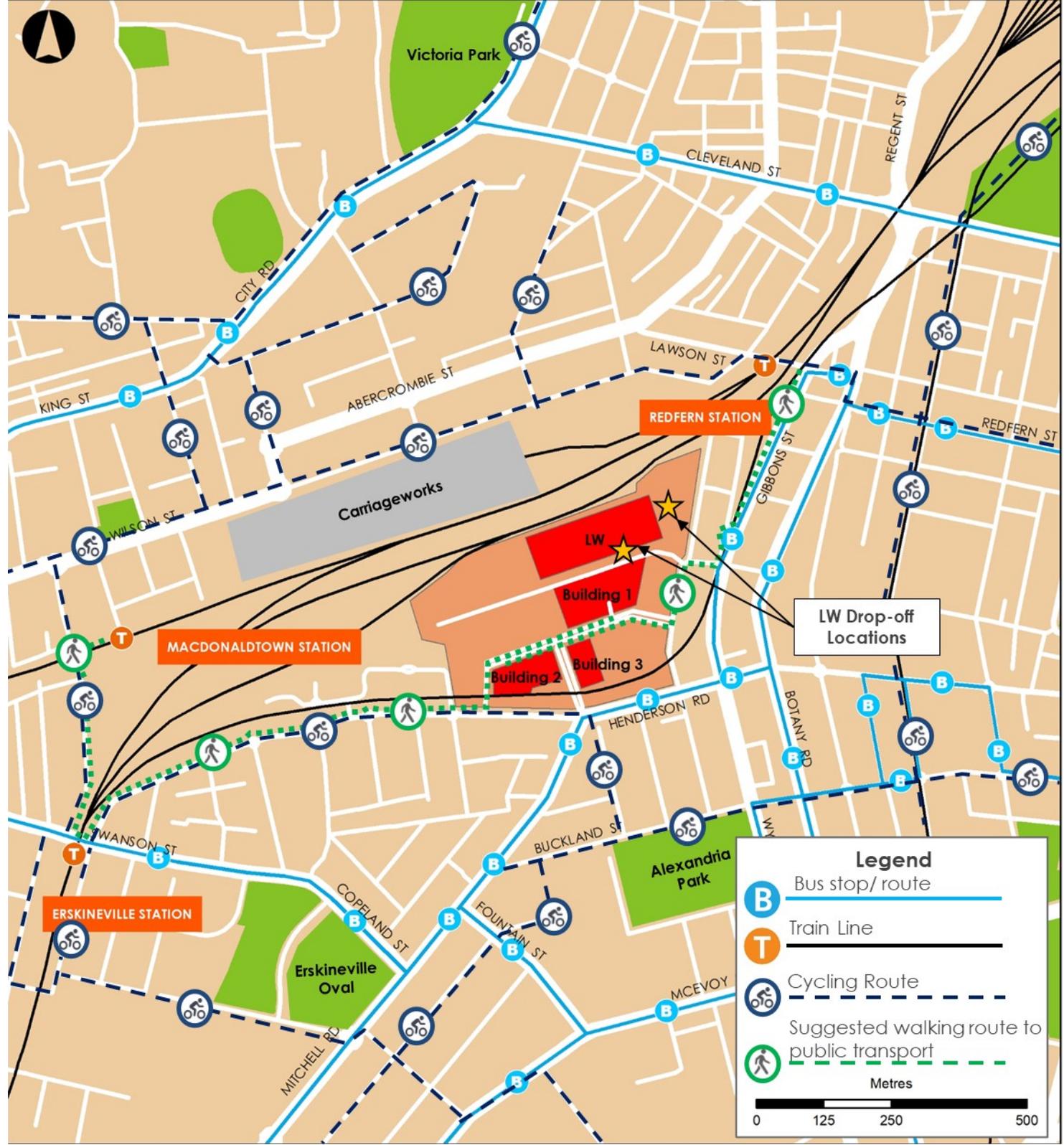
T By Train: Redfern Railway Station is located approximately 300m north-east of the ATP site and is within a 4 minute walk. The station is a major stop in the Sydney Trains network, with frequent services on four rail lines. The frequency of services for each line is detailed below.

Similarly, Erskineville Station and Macdonaldtown Station are also within easy walking distance.

Lines	Frequency Peak Period	Frequency Off Peak
T1 North Sore, Northern & Western Line	2-3 minutes	3-4 minutes
T2 Inner West and Leppington	2-3 minutes	5-15 minutes
T3 Bankstown Line	8 minutes	8-10 minutes
T4 Illawarra and Eastern Suburbs Line	4 minutes	10 minutes
T8 Macarthur and Airport Line	12-15 minutes	-

B By Bus: Bus stops are located within a 2 minute walking distance from the site including on Henderson Road and Wyndham Street. The bus routes which service the site are detailed in the following table.

Route	Description	Frequency
301	Eastgardens to Redfern	15 minutes peak/ 30 minutes off-peak
302	Eastgardens to Redfern	60 mins off-peak
303	Sans Souci to Redfern	15 minutes peak/ 60 minutes off-peak
305	Mascot to Redfern	20-25 minutes between 3pm and 6.30pm
308	Marrickville Metro to Sydney CBD	12 minutes peak/ 20 minutes off peak
309/309x	Port Botany to Sydney CBD	10 minutes peak/ 20 minutes off peak
355	Bondi Junction to Marrickville Metro	20 minutes peak/ 30 minutes off peak



Melbourne

A Level 25, 55 Collins Street
PO Box 24055
MELBOURNE VIC 3000
P +613 9851 9600
E melbourne@gta.com.au

Sydney

A Level 6, 15 Help Street
CHATSWOOD NSW 2067
PO Box 5254
WEST CHATSWOOD NSW 1515
P +612 8448 1800
E sydney@gta.com.au

Brisbane

A Ground Floor, 283 Elizabeth Street
BRISBANE QLD 4000
GPO Box 115
BRISBANE QLD 4001
P +617 3113 5000
E brisbane@gta.com.au

Canberra

A Tower A, Level 5,
7 London Circuit
Canberra ACT 2600
P +612 6243 4826
E canberra@gta.com.au

Adelaide

A Suite 4, Level 1, 136 The Parade
PO Box 3421
NORWOOD SA 5067
P +618 8334 3600
E adelaide@gta.com.au

Gold Coast

A Level 9, Corporate Centre 2
Box 37, 1 Corporate Court
BUNDALL QLD 4217
P +617 5510 4800
F +617 5510 4814
E goldcoast@gta.com.au

Townsville

A Level 1, 25 Sturt Street
PO Box 1064
TOWNSVILLE QLD 4810
P +617 4722 2765
E townsville@gta.com.au

Perth

A Level 2, 5 Mill Street
PERTH WA 6000
PO Box 7025, Cloisters Square
PERTH WA 6850
P +618 6169 1000
E perth@gta.com.au