



44-48 Oxford Street, Epping Mixed Use Development Green Travel Plan

Client // Dunnet Properties
Office // NSW
Reference // N147040
Date // 20/07/18

44-48 Oxford Street, Epping

Mixed Use Development

Green Travel Plan

Issue: B 20/07/18

Client: Dunnet Properties

Reference: N147040

GTA Consultants Office: NSW

Quality Record

Issue	Date	Description	Prepared By	Checked By	Approved By	Signed
A	20/07/18	Issued for consultation with Council	Mackenzie Brinums	Brett Maynard	Brett Maynard	Brett Maynard
B	20/07/18	Minor consistency updates	Mackenzie Brinums	Brett Maynard	Brett Maynard	<i>B. Maynard</i>

Executive Summary

The proposed 44-48 Oxford Street Epping mixed use development is well-located to capitalise on public transport services, being located some 200 metres from Epping Station, which is currently under construction to accommodate the Sydney Metro Northwest rail line. The new Metro provides services every four minutes during peak periods, in addition to other rail lines and bus services currently available.

A Green Travel Plan (GTP) has been prepared for the proposed mixed-use development located at 44-48 Oxford Street, Epping, in response to the request from the Sydney Central City Planning Panel. The key aim of the GTP is to minimise the traffic impact of the development, particularly during road network peak periods, with the proponent committing to implement the GTP and the following key measures:

- **Provide car share pods on-site** and promote the availability of car sharing pods for trips that require the use of private vehicles. It is proposed to provide five car share vehicles on-site which will be operated by a private operator.
- **Provide free Opal Cards** (one per adult residential occupier and full-time tenant staff member) with \$100 credit to initially subsidise public transport and encourage residents and tenants to trial for different trip types from Day 1.
- **Provide a welcome pack directly to all new residents and tenants** that includes the Travel Access Guide, the free Opal cards, free car share membership and information on the sustainable travel facilities and initiatives.)
- **Provide high-quality bicycle parking over and above the relevant requirements.** The proposed development requires 199 bicycle spaces to be provided; the majority of which would typically be combined with residential storage cages. A minimum of 200 dedicated, secure bicycle parking spaces would be provided within the basement, with appropriate access arrangements to service residential, commercial, retail and visitor user groups.
- **Provide end-of-trip facilities including showers and lockers** in conjunction with the basement bicycle storage area such that cyclists and motorbike riders can store clothing and equipment (e.g. helmets) to streamline the use of these modes and reduce the hassle of taking such items backwards between the basement and apartments and/or tenancies.
- **Provide public transport information displays and a walking and cycling map**, showing users how to get to the nearest facilities (including recreational routes) and summarise journey times to key destinations.
- **Provide the minimum car parking requirement** as set by the DCP 2013 (a reduction of 20 car parking spaces from the DA submission). This results in a net change in traffic generation from the existing site use of approximately 14 and 11 trips in the AM and PM peak hours respectively.

With the proposed reduction in car parking supply and a clear commitment to specific and measurable initiatives, the traffic impact of the development would be negligible. The proposed car parking provisions strike an appropriate balance between market demands and traffic reduction objectives.

It is further noted that funding of the Epping Road railway overbridge has recently been announced by DPE, which provides sufficient traffic capacity for developments that have been approved or under assessment in Epping town centre.

Table of Contents

1. Introduction	1
1.1 Background	1
1.2 Site Location	1
1.3 References	2
2. Reduced Car Parking Provisions and Traffic Impact	3
2.1 Proposed Reduction in Car Parking	3
2.2 Reduction in Traffic Generation	4
2.3 Bicycle Parking Requirements	4
3. Green Travel Plan	6
3.1 Introduction	6
3.2 What is a Green Travel Plan	6
3.3 Walk Score & Transit Score	6
3.4 Existing Transport Provision	7
3.5 Future Rail Services	8
4. Opportunities and Targets	12
4.1 Analysis	12
4.2 Target Modes and Actions	13
4.3 Information and communication	15
5. Actions	16
5.1 General	16
5.2 Walking	16
5.3 Cycling	16
5.4 Public Transport	17
5.5 Car Share and Car-pooling	17
5.6 Car Parking	17
6. Monitoring and Review	18
6.1 Travel Survey	18
6.2 Review In-house Programs	19
6.3 Gaps	20

Figures

Figure 1.1: Site Location	2
Figure 3.1: Existing Rail and Bus Services	7

Figure 3.2:	Epping bicycle network	9
Figure 3.3:	Location of GoGet Pods in the vicinity of the subject site	10
Figure 3.4:	Travel Zone 1406	10
Figure 4.1:	Example end-of-trip facilities by proponent	15

Tables

Table 2.1:	DCP and RMS car parking requirements	3
Table 2.2:	Revised traffic generation estimates	4
Table 2.3:	DCP bicycle parking requirements	4
Table 3.1:	Walk Score and Transit Score	7
Table 3.2:	Existing public transport services	8
Table 3.3:	2011 Census Journey to Work Data (TZ 260)	11

1. Introduction

1.1 Background

The following Green Travel Plan (GTP) has been prepared for the proposed mixed-use development located at 44-48 Oxford Street, Epping, in response to the request from the Sydney Central City Planning Panel (herein referred to as the Panel):

"for the provision of a satisfactory finalised travel plan that is detailed enough to be enforceable as a condition of consent, which should be drafted in consultation with Council and refer to contemporary leading practices – which may include increased car sharing and reduction of onsite car parking".

The development proposes the following:

- 178 apartments located within two towers
- Three retail premises with a total gross floor area (GFA) of 591.3m²
- Commercial office space with a total GFA of 991.1m².

The proponent (Pirasta Pty Ltd) proposes that a GTP be implemented to minimise the traffic impact of the development, particularly during road network peak periods.

The broader aim of the plan is to reduce the environmental impact of travel to/from the site. In essence, the plan encourages more efficient use of motor vehicles as well as alternatives to the single occupant motor car.

The plan comprises a suite of strategies aimed at encouraging walking, cycling, public transport and car-pooling for travel to and from work and a shift away from the reliance on single occupant vehicle travel. The GTP and associated initiatives form a commitment to specific actions from the proponent and can be conditioned accordingly as part of the development consent.

It is further noted that funding of the Epping Road railway overbridge has recently been announced by DPE, which provides sufficient traffic capacity for developments that have been approved or under assessment in Epping town centre.

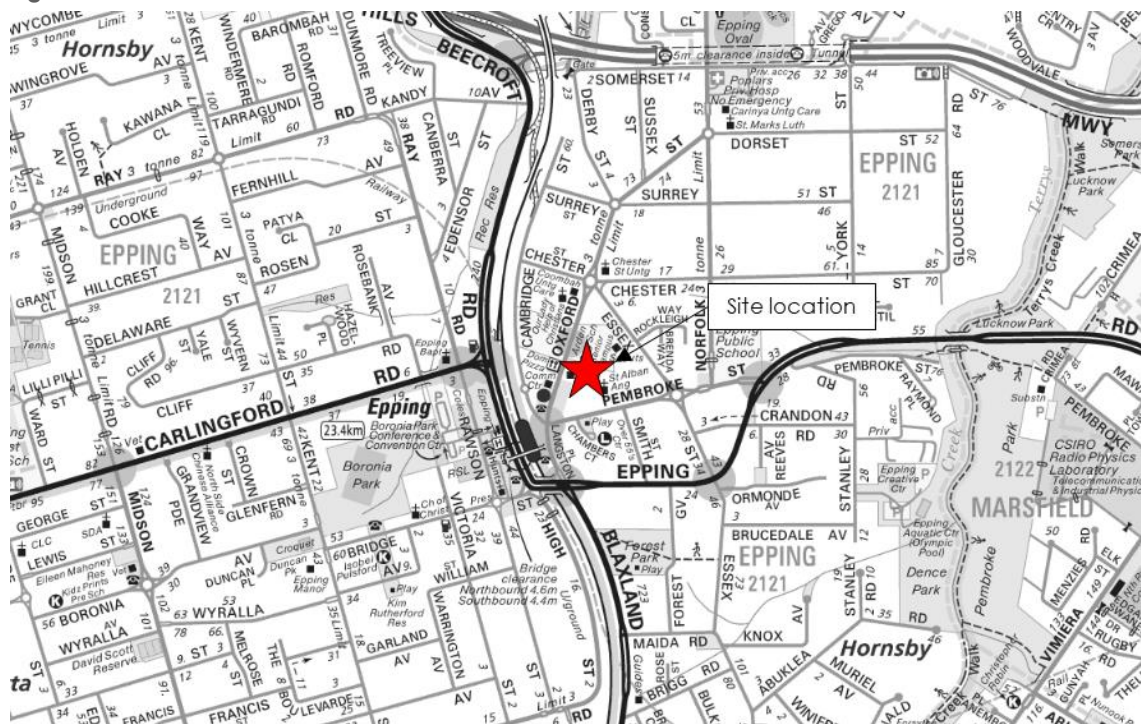
1.2 Site Location

The subject site is located at 44-48 Oxford Street, Epping. It is located approximately 200 metres north of Epping Station which provides high frequency train services to the CBD and surrounding suburbs. The station will also form part of the Sydney Metro Northwest project which is due to begin operation in 2019.

The surrounding properties predominantly include residential, commercial, retail and educational uses.

The subject site and its surroundings as shown in Figure 1.1.

Figure 1.1: Site Location



Base image source: Sydney

1.3 References

To ensure that this GTP reflects current betas practice, the following documents and resources have been referred to in the preparation of this document:

- Draft Travel Planning Guidelines, City of Sydney, 2015, http://www.cityofsydney.nsw.gov.au/_data/assets/pdf_file/0006/208284/Travel-Planning-Guidelines-DRAFT.pdf
- Workplace Travel Plan Resource, NSW Government Premier's Council for Active Living, http://www.pcal.nsw.gov.au/workplace_travel_plan, accessed 16/07/18.

2. Reduced Car Parking Provisions and Traffic Impact

2.1 Proposed Reduction in Car Parking

The car parking requirements for different development types are set out the Hornsby DCP. Given the direction from the Panel to consider the reduction in on-site parking provisions, reference has also been made to the residential parking rates identified in the *Guide to Traffic Generating Developments* (RMS, 2002). It is noted that the RMS Guide has two sets of high density residential parking rates, one for "Metropolitan Regional (CBD) Centres" and another for "Metropolitan Sub-Regional Centres". The existing Epping Town Centre can be categorised as the latter, which is expected to remain the case in the short to medium term when the proposed development would be occupied. The "CBD" classification is typically reserved for the likes of Sydney, Chatswood and Paramatta.

The relevant car parking requirements are identified in Table 2.1.

Table 2.1: DCP and RMS car parking requirements

Land use	Quantity	DCP rate	Parking Space Requirement	RMS rate	Parking Space Requirement
Studio	21	0.5 spaces / dwelling	10.5	0.6 spaces / dwelling	12.6
1-bed apartment	71	0.75 spaces / dwelling	53.3	0.6 spaces / dwelling	42.6
2-bed apartment	65	1 space / dwelling	65	0.9 spaces / dwelling	58.5
3-bed apartment	21	1.5 spaces / dwelling	31.5	1.4 spaces / dwelling	29.4
Residential visitors	178	1 per 10 dwellings	17.8	1 per 5 dwellings	35.6
Residential Total			178.1	-	178.7
Retail	592m ²	1 space / 60m ² GLFA (min) 1 space / 30m ² GLFA (max)	9.9 - 19.7		
Commercial	1,013m ²	1 space / 70m ² GLFA (min) 1 space / 50m ² GLFA (max)	14.5 - 20.3		
Non-residential Total			24.4 - 40		
Total			202.5 – 218.1	-	203.1 – 218.7

As shown above, the DCP and RMS rates result in a similar parking requirement for the residential component of the proposed development, albeit with some variation in the dwelling type breakdown. It is proposed to reduce the car parking provision for the proposed development from 223 spaces to 203 spaces, meeting the overall requirements set by both the DCP and RMS. This is achieved through removing the minor parking over-supply and adopting the minimum non-residential requirements, rather than the maximum.

The parking is proposed to be allocated in accordance with the DCP requirements, which is considered appropriate and consistent with the local area, as well as other similar developments that would be occupied at a similar time. The amended breakdown would be:

- 160 spaces for residents
- 18 spaces for residential visitors
- 10 spaces for retail
- 15 spaces for commercial.

2.2 Reduction in Traffic Generation

The *Traffic and Parking Assessment Report* (Varga Traffic Planning, 2017) estimated that the proposed development would generate approximately 60 and 46 movements in the AM and PM peak hours respectively. Given the proposed reduction in car parking provision, the traffic generation estimates have been recalculated using the RMS traffic generation rates based on trips per car space. Table 2.2 summarises the revised traffic generation estimates for the proposed development.

Table 2.2: Revised traffic generation estimates

Land use	Original parking provision	Revised parking provision	Existing traffic generation (Varga, 2017)		Revised traffic generation		Net change in traffic generation	
			AM	PM	AM	PM	AM	PM
Residential	186	178	34	27	33	26	-1	-1
Retail/ commercial	37	25	26	19	18	13	-8	-6
Total	223	203	60	46	51	39	-9	7

As shown above, the proposed reduction in traffic generation is expected to result in a reduction of approximately nine trips in both the AM and PM peak hours. Considering the existing traffic generation of the site as identified in the Varga report (37 trips in AM peak hour and 28 trips in PM peak hour), the proposed reduction in the car parking provision for the development would result in a net traffic generation of approximately 14 and 11 trips in the AM and PM peak hours respectively.

2.3 Bicycle Parking Requirements

The bicycle parking provision requirements for different development types are set out in Hornsby DCP 2013. A review of the bicycle parking rates and the floor area schedule results in a minimum bicycle parking requirement for the proposed development as summarised in Table 2.3.

Table 2.3: DCP bicycle parking requirements

Land use	Use	Size	DCP bicycle parking rate	DCP bicycle parking requirement (spaces)
Residential apartments	Residents	178 apartments	1 space / dwelling	178
	Visitor		1 space / 10 dwellings	18
Commercial premises	Employee	1,605m ²	1 space / 600m ²	3
Total				199

As shown in Table 2.3, the development is required to provide 199 bicycle spaces; the majority of which would typically be combined with residential storage cages. A minimum of 200 dedicated,

secure bicycle parking spaces would be provided within the basement, with appropriate access arrangements to service residential, commercial, retail and visitor user groups. This significantly exceeds typical provisions and is aligned with best practice.

3. Green Travel Plan

3.1 Introduction

Transport is a necessary part of life which has effects that can be managed. The transport sector is one of the fastest growing emissions sectors in Australia and therefore a travel plan provides an opportunity for reducing greenhouse gases. As well as delivering better environmental outcomes, providing a range of travel choices with a focus on walking, cycling and public transport will have major public health benefits and will ensure strong and prosperous communities.

The physical infrastructure being provided as part of the development forms a major part of the initiatives to encourage a reduction of vehicle transport use, however the GTP will ensure that the services and policies to the site are tailored to the users and coordinated to achieve a sustainable outcome.

3.2 What is a Green Travel Plan

A GTP is a package of measures aimed at promoting and encouraging sustainable travel and reducing reliance on the private car. However, the purpose of a GTP is not to be 'anti-car', but to make apparent, encourage and support people's aspirations for carrying out their daily business in a more sustainable way. GTPs can provide both:

- measures which encourage reduced car use (disincentives or 'sticks')
- measures which encourage or support sustainable travel (also known as Active Transport), reduce the need to travel or make travelling more efficient (incentives or 'carrots').

Active transport relates to physical activity undertaken as a means of transport. It includes travel by foot, bicycle and other non-motorised vehicles. Use of public transport is also included in the definition as it often involves some walking or cycling to pick-up and from drop-off points.

The GTP would promote the use of transport, other than the private car, for choice of travel to and from the site, which is more sustainable and environmentally friendly. Ultimately however, end users shall determine their most suitable means of transport.

This GTP clearly also benefits from the high level of public transport accessibility available from the site.

3.3 Walk Score & Transit Score

A walk score and transit score provide an assessment of how accessible a development is to public transport, parks, restaurants, entertainment centres and schools, that is, in terms of walking distance. A higher walk score and transit score correlates to a reduced need for a car.

The walk score and transit score are provided by walkscore.com (<https://www.walkscore.com/>). Whilst there is no official recognition of the walk score and transit score by any transportation authority, the score gives insight into how accessible an area is for people travelling without a car. The score lies on a scale between 0 and 100. The site gives the following description on what each score means:

Table 3.1: Walk Score and Transit Score

Score	Walk Score Meaning	Transit Score Meaning
90 – 100	Walker's Paradise Daily errands do not require a car	Rider's Paradise World-class public transportation
70 – 89	Very Walkable Most errands can be accomplished on foot	Excellent Transit Transit is convenient for most trips
50 – 69	Somewhat Walkable Some errands can be accomplished on foot	Good Transit Many nearby public transportation options
25 – 49	Car-Dependent Most errands require a car	Some Transit A few nearby public transportation options
0 – 24	Car-Dependent Almost all errands require a car	Minimal Transit It is possible to get on a bus

Oxford Street in Epping was given a walk score of 88 and a transit score of 73. This indicates that the site is well suited for residents to carry out tasks either by walking or via public transport.

3.4 Existing Transport Provision

There are a wide range of active transport options that are available for future residents and employees of the proposed mixed-use development of 44-48 Oxford Street, Epping including:

- rail services
- bus services
- bicycle and pedestrian linkages.

The existing rail and bus services are shown in Figure 3.1.

Figure 3.1: Existing Rail and Bus Services



Base image source: Transport for NSW, accessed 12 July 2018

A summary of the surrounding public transport services is presented in Table 3.2.

Table 3.2: Existing public transport services

Service	Route number	Route description	Location of stop	Distance to nearest stop	Frequency on/off-peak
	288	Epping to City Erskine Street	Cambridge Street	200m	15 mins/ 30 mins
	290	Epping to City Erskine Street via Macquarie University and North Sydney			Limited services per day
	291	Epping Station to McMahon's Point			15 mins/ hourly
	295	North Epping to Epping (Loop Service)			15 mins/ hourly
	541	Epping to Eastwood	Beecroft Road	280 m	45 mins/ hourly
	546	Epping to Parramatta via North Rocks and Oatlands			30 mins/ hourly
	549	Parramatta to Epping via North Rocks			15 mins/ hourly
	630	Macquarie Park to Blacktown via Carlingford			30 mins/ hourly
	M54	Parramatta to Macquarie Park via Epping			10 mins/ 15 mins
	N80	Hornsby to City Town Hall via Strathfield			Hourly (night bus)
Train	T1 North Shore and Northern Line		Epping Station	200 m	4-10 mins/ 15-30 mins
	Central Coast and Newcastle Line				15 mins/ 30 mins

3.5 Future Rail Services

The Sydney Metro Northwest project is one of Australia's largest public transport infrastructure projects and is anticipated to deliver faster, safer and more reliable service to the northwest region of Sydney.

The Sydney Metro Northwest will provide a rail connection from the existing Chatswood Interchange through to Cudgegong Railway Station. As part of this connection, the train line will pass through Epping Station which is anticipated to provide an additional train every four minutes during the weekday AM and PM peak periods.

In short, the Epping Town Centre is expected to benefit greatly from the Sydney Metro Northwest project given the increased incentives to travel by train on the regular fast service with the town centre planning, largely reflecting this inherent change.

3.5.1 Walking and Cycling Infrastructure

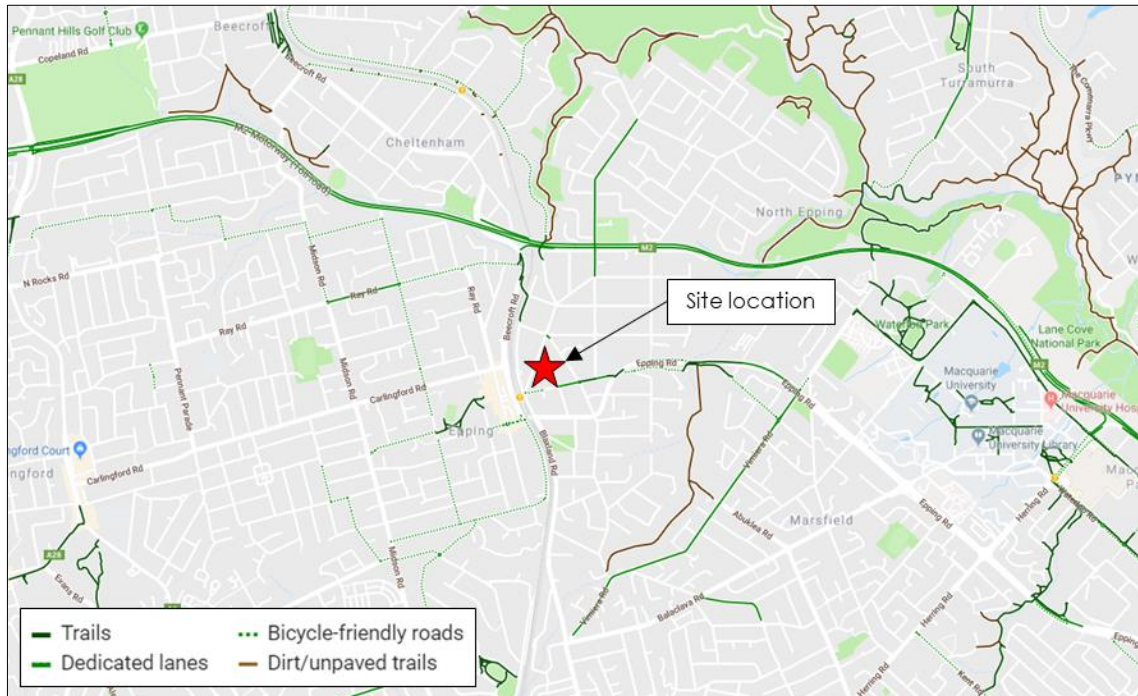
Pedestrian footpaths are located on both sides of most of the streets within the Epping Town Centre with Oxford Street, Langston Place and the eastern side of Cambridge Street providing two to three-metre wide footpaths.

These paths provide good connectivity between the subject site and Epping Railway Station, with signalised pedestrian crossings on all legs at the intersection of Pembroke Street/ Oxford Street allowing for safer crossing.

Hornsby Shire Council and City of Parramatta Council have developed and maintained an effective cycling network within and surrounding the Epping town centre. Oxford Street, Cambridge Street, Chester Street and Essex Street are cyclist friendly streets and combine to connect with designated shared paths, including the Surrey Street tunnel under the rail line.

The local on-street and off-street cycling network is shown in Figure 3.2.

Figure 3.2: Epping bicycle network

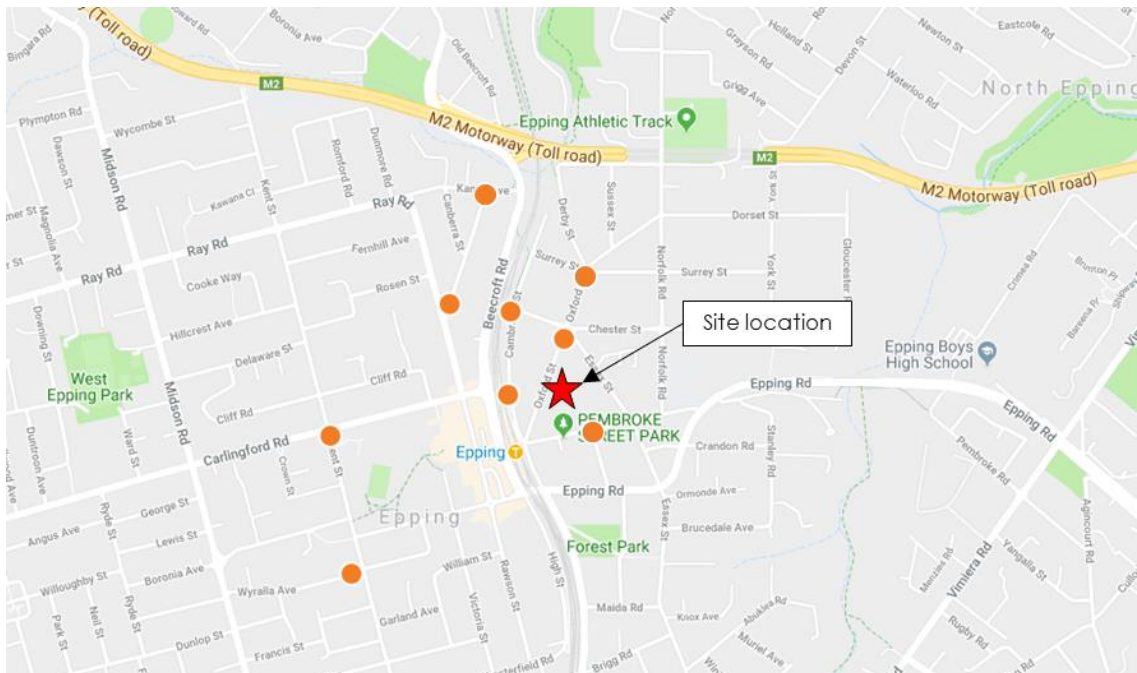


Base image source: Google Maps, accessed 12 July 2018

3.5.2 Car Share

GoGet (along with other car share schemes) has become increasingly common throughout Sydney and is now recognised as a viable transport option for drivers throughout Sydney. They are now a well-utilised service especially in the inner ring suburbs due to limited parking availability and the expense involved in parking close to the Sydney CBD. GoGet offer a viable alternative to the private car for trips where distances are short and are likely to be of benefit to future tenants and commercial residents of the proposed development. GoGet car share pods located close to the site are shown in Figure 3.3.

Figure 3.3: Location of GoGet Pods in the vicinity of the subject site



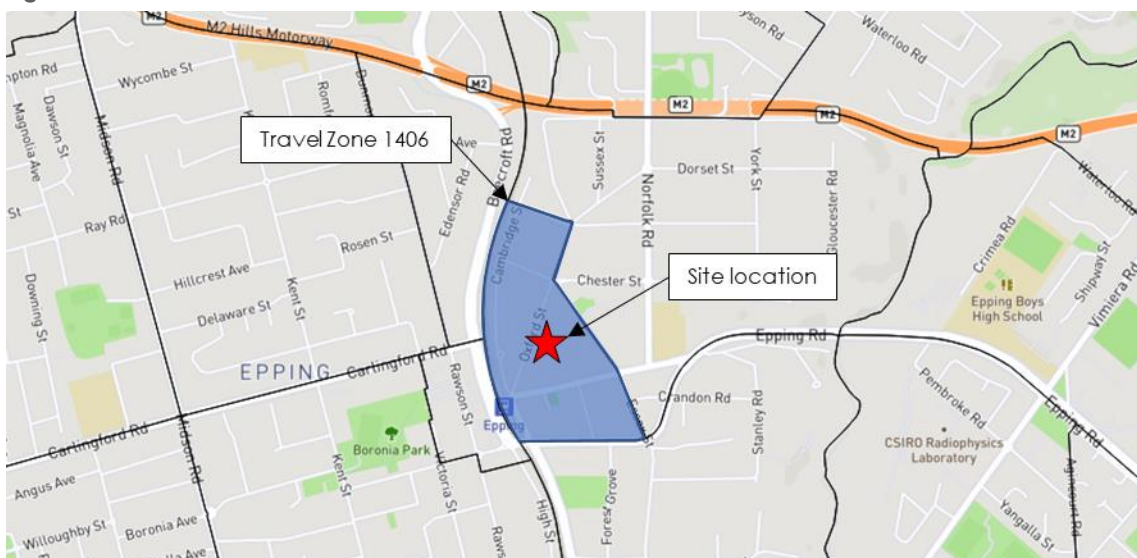
Base image source: GoGet, accessed 12 July 2018

3.5.3 Existing Transport Use

The 2011 Census Journey to Work (JTW) data provides the most robust picture of existing travel patterns to and from the development and Greater Sydney. The smallest geographical area for which JTW data is available is known as a Travel Zone.

The development is located in Travel Zone 1406 as shown in Figure 3.4. JTW data for this travel zone for the 2011 censuses was analysed to understand the current mode of travel to work for people living within the zone. The results of this analysis are summarised in Table 3.3.

Figure 3.4: Travel Zone 1406



Base image source: Transport for NSW Travel Zone Explorer

Table 3.3: 2011 Census Journey to Work Data (TZ 260)

Travel Mode	2011 Census
Car (as driver)	37%
Car (as passenger)	3%
Rail/ Train	40%
Bus	4%
Walking	3%
Worked at home or did not go to work	9%
Other*	4%
Total	100%

Data Source: Transport for NSW Open Data

4. Opportunities and Targets

Based on the transport network reviewed in Section 2 above, this section identifies the potential travel patterns to and from the 44-48 Oxford Street, Epping development. This section builds on the walking and public transport networks already available around the premises, as well as the limited on-site car parking provision, identifying transport modes which may be best suited to meet the travel demand for the site. This guides the program selection in Section 5, to respond to available transport infrastructure and current travel patterns in the local area.

4.1 Analysis

Scenario 1: Business as usual

If no green travel actions are taken, it is likely that the new residents would adopt travel patterns similar to those currently living in the area. In this way, the current resident travel behaviour is a suitable proxy to identify current travel patterns and future travel patterns if no green travel actions are applied. If the management of development make an active effort to encourage 'greener' travel modes, the intended future travel patterns can be ascertained.

Scenario 2: Wayfinding and resident travel information

By targeting resident behaviour with quality information about transport options, the site can achieve more walking, cycling and public transport use. Providing wayfinding and public transport information to new residents and employees is an opportunity to demonstrate good transport practice and encourage residents/ employees to adopt these travel modes from the day they occupy the development.

Scenario 3: Proactive initiatives ('reach' target)

The management of the development could proactively pursue initiatives to accommodate pedestrians, cyclists and public transport users. To achieve 'reach' travel targets, prototype projects and initiatives which promote 'active transport' may be required to minimise car use by residents and employees.

The objectives of the management of the development would lie in ensuring a greater percentage of residents and employees choosing to catch public transport.

Based on the JTW data shown in Table 3.3 and the frequency of alternative transport modes available in the vicinity of the site, it is recommended that the development adopt the following targets for residents change in travel behaviour:

- 50% of residents travelling to work by public transport
- 5% of residents walking or cycling
- 32% of residents (or less) travelling to work by car
- An increase of resident cycling or walking for trips within the local area.

A regular travel survey would provide a base case for these assumptions and allow management of the development to refine these assumptions and inform programs as part of this GTP.

4.2 Target Modes and Actions

The location of the site, in terms of its close proximity to Epping Station and frequent bus routes along Epping Road is a key attribute of the development. The GTP will then put in place measures to further influence the travel patterns of those people moving into residential properties and commercial offices with a view to encouraging modal shift away from cars. To reduce car parking demand from the apartments and office car parking spaces, the most straightforward and achievable target modes and actions should be addressed first.

i **Implementation of the GTP**

- Appoint a Travel Plan Coordinator (TPC) to ensure the successful implementation and monitoring of the GTP. This should be coordinated in an integrated format for the entire development, not separately for the residential component or individual commercial/ retail tenants.
- Conduct annual travel surveys to establish travel patterns in the area and assess success of the GTP. This is to be managed by the appointed TPC. Allow surveys to incorporate suggestions from residents to improve green travel arrangements.

ii **Increase walking, running and cycling to work and to other destinations (errands, recreation, social) by residents and tenant staff**

- Provide a large secure storage cage(s) suitable for bicycle parking for residents and tenants of the development.
- Locate visitor bicycle parking in a publicly accessible location to encourage cycling to and from the site.
- Provide high-quality end-of trip facilities, including showers and lockers. These could be used by both residents and tenants, avoiding the need to take clothing and equipment and backwards and forwards. Motorbike riders would also benefit from these facilities.
- Promote local bicycle facilities and shops to residents to encourage and facilitate an increase in cycling.
- Promote ride/ walk to work days through posters on noticeboards and/or in lifts.

iii **Increase car-pooling and car share use**

- Provide five (5) basement parking spaces for car share vehicles. The proponent would fund two car share vehicles on-site for the first two years, with additional vehicles to be provided in response to demand on a self-funding basis. GoGet have several on-street car share pods in the vicinity of the site, which could also be used by residents and tenants should GoGet be selected as the service provider.
- Residents would receive a free car-share membership as part of their contract/ lease bundled with the car-share welcome pack which explains use and shows car-share pod locations.
- Encourage residents to car-pool and provide information on electronic ride sharing applications, to connect with other residents in the surrounding area.

iv **Increase awareness and knowledge of available transport options by residents**

- Provision of a Transport Access Guide (TAG, to be prepared prior to occupation) which would be given to every new occupant of the dwellings. This document would be based upon facilities currently available at the site and would be updated regularly to reflect changes in public transport service, active travel

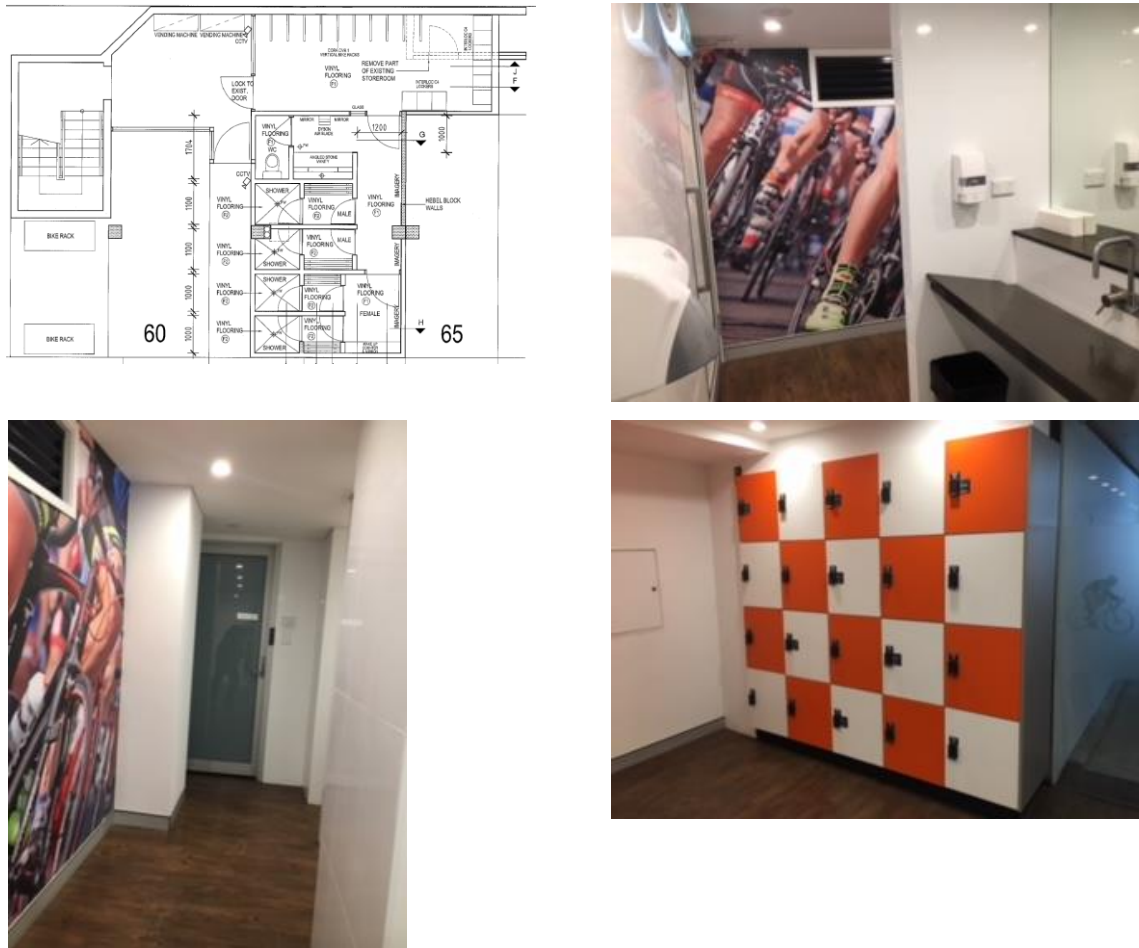
- facilities and other relevant pieces of information. The TAG should include public transport timetables, stop/ station locations, walking times/ distances etc.).
 - Provide real time information on public transport arrival/ departure times. Many multi-storey buildings have information screens in the lobby identifying occupants of each floor along with the local weather and a rolling newsfeed. A similar display could be arranged to show train (and potentially bus) departure times from Epping Station.
 - A half yearly newsletter could be provided to every household for up to two years after occupation bringing the latest news on sustainable travel initiatives in the area.
- v **Increase public transport use**
- Provide a welcome pack for all new residents that includes the above TAG and free Opal card(s) with a nominal initial credit (one per adult occupier and full-time tenant staff member, with \$100 credit to initially subsidise approximately two weeks' public transport and encourage residents/ tenants to trial for different trip types). Ideally the welcome pack would be presented face-to-face such that an overview and initial journey planning advice can be provided. The advantage of this measure lies in the ability to guide people's future travel patterns by guiding their travel habits from 'day one'. This would be promoted via leaflets for residents and can also be communicated with sales and letting agents.
 - Provide real-time transport information screens for departure times of nearby transport routes.
- vi **Provide motorbike parking** in any available areas within the basement to provide a further alternative to private car travel. A total of 13 motorcycle spaces are proposed throughout basement levels 2 to 4, with the potential for further spaces during detailed design.

Based on these targets, Section 5 identifies program checklist to achieve travel behaviour through this plan. These targets are measurable, through car parking occupancy surveys or through resident travel surveys. Using these metrics, the property manager can quickly track performance against the travel plan objectives to recognise what programs are working and link program funding to results.

All of the chosen measures would be in place from 'Day One'. Every resident and employee welcome pack will not only include the TAG which would give detailed information about how to travel to and from the site by means other than the car, but also an information sheet explaining how to use and recharge Opal cards and how to use GoGet. The strata/ building manager would be available to answer questions and assist with the use of any on-site facilities.

Further to this, it is noted that the proponent understands the value of providing high-quality bicycle parking and end-of-trip facilities, and has provided or is in the process of constructing such facilities as part of other developments (see Figure 4.1 example facilities).

Figure 4.1: Example end-of-trip facilities by proponent



4.3 Information and communication

Several opportunities exist to provide residents, staff and visitors with information about nearby transport options. Connecting residents, staff and visitors with information would help to facilitate journey planning and increase their awareness of convenient and inexpensive transport options which support change in travel behaviour. These include:

- Transport NSW provides bus, train and ferry routes, timetables and journey planning through their Transport Info website: <http://www.transportnsw.info>.
- Council provides a number of services and a range of information to encourage people of all levels of experience to travel sustainable modes: <https://www.cityofparramatta.nsw.gov.au/living-and-community/parking-and-transport>

In addition, connecting residents, staff and visitors via social media may provide a platform to informally pilot new programs or create travel-buddy networks and communication.

5. Actions

5.1 General

Action	Cost	Date
Assign formal responsibility to the strata manager or building manager for resident travel coordinator duties involved in this plan	Moderate (additional time cost)	From building occupation
Identify a staff member to complete travel coordination representative duties involved in this plan, on behalf of the commercial and retail tenancies	Nil	Within two weeks of tenant occupation
Provide a welcome pack upon initial occupation of each dwelling and for new tenants and staff occupying the building, which includes a TAG, the free Opal cards, car share membership and information regarding how to use car share facilities and become involved in car-pooling	Low	From building occupation

5.2 Walking

Action	Cost	Date
Produce a map showing safe walking routes to and from the development with times (not distances) to local facilities, such as shops and public transport stops. Place in a prominent foyer location and include copies in welcome packs	Low	From building occupation
Identify residents living near work that may be interested in walking to work	Nil	From date of implementation
Provide lockers within individual tenancies to allow for staff to keep a change of clothes (tenant responsibility)	Low	From tenancy occupation
Have a few umbrellas handy in the building foyer for rainy days – perhaps bearing a tenant company logo or the building name	Minimal	From date of implementation
Take part in 'National Walk to Work Day'	Nil	Ongoing

5.3 Cycling

Action	Cost	Date
Install a secure bicycle parking cage(s) in the basement, capable of accommodating a minimum of 182 bicycles	Significant	From building occupation
Install bicycle parking for visitors, capable of accommodating a minimum of 18 bicycles	Moderate	From building occupation
Provide showers and lockers for a change of clothes or storing equipment (e.g. helmet), in conjunction with bicycle parking	Moderate	From building occupation
Provide at least two pool bicycles for residents and staff to trial cycling trips and/or use when making short trips during the day	Minimal	From building occupation
Ensure bicycle parking is clearly visible or provide signage to direct people to cycle bays	Nil	From date of implementation
Supply a bicycle toolkit consisting of puncture repair equipment, a bike pump, a spare lock and lights	Minimal	From date of implementation
Establish an internal Bicycle Users Group (BUG) for both residents and tenant staff. BUGs are formed by people who want to work together to improve facilities for cyclists and encourage cycling	Nil	From date of implementation
Develop a 'bike buddy' scheme for inexperienced cyclists, for both residents and staff	Nil	From date of implementation
Take part in 'National Ride to Work Day' and organise a cyclists' breakfast	Low	Annual, ongoing
Organise an after-work ride. It doesn't have to be long or strenuous, and could end somewhere for dinner or drinks. The idea is to encourage people who might be reluctant to cycle to give it a go!	Nil	Quarterly, ongoing

Action	Cost	Date
Come to an arrangement with a local bicycle retailer for cheap servicing of resident and staff bikes and other incentives	Nil	From date of implementation
Provide interest free loans for staff to buy a bicycle which they then pay back from their wages	Minimal	From date of implementation
Provide an on-site bicycle maintenance service (either as a special one-day event or on a regular basis)	Minimal	Monthly/ yearly
Produce a map showing more leisurely bicycle routes to work	Minimal	From date of implementation
Participate in annual events such as 'Ride to Work Day'	Nil	Yearly

5.4 Public Transport

Action	Cost	Date
Provide free Opal cards with \$100 credit for new residents and tenant staff	Moderate	From building occupation
Develop a map showing public transport routes to work	Minimal	From date of implementation
Put up a display panel with leaflets and maps showing the main public transport routes to and from work	Low	From date of implementation
Place information on the work intranet with links to appropriate external websites e.g. TfNSW (for commercial tenants)	Nil	From date of implementation
Provide leaflets or timetables with payslips (for retail and commercial tenants)	Nil	Ongoing
Encourage public transport use for business travel	Nil	Ongoing
Ensure Opal Cards are available at the workplace for work travel during the day	Minimal	From date of implementation

5.5 Car Share and Car-pooling

Action	Cost	Date
Implement an on-site car share program. Five car share spaces are proposed within the basement and are to be managed by the Strata Scheme, with vehicles supplied by a service provider (such as GoGet).	Significant	Two vehicles to be in place prior to building occupation, with remainder in response to demand
Provide free membership with GoGet for residents and tenant staff members	Low	Ongoing
Prepare a car-pooling poster to encourage residents and tenant staff to talk to each other and car-pool to work and/or access electronic car-pooling/ ride sharing applications	Minimal	From date of implementation

5.6 Car Parking

Action	Cost	Date
Monitor visitor parking to reduce the likelihood of misuse by residents and tenant staff	Low	From date of implementation
Residents of the development will not be eligible to participate in Council's resident parking schemes for on-street parking	Nil	From occupation of building
Prohibit the sale of car parking spaces to third parties external to the building	Nil	From date of implementation
Provide motorbike parking in the basement to provide a further alternative to car ownership and car travel	Low	From occupation of building

6. Monitoring and Review

In order for the GTP to be effective it must be reviewed on a regular basis. It is important to ensure that the GTP is meeting its objectives and having the intended impact on car use and transport choices for the residents and employees of the development. The Plan should be reviewed on a yearly basis with resident/ staff travel surveys. The Plan should be updated and changed to reflect changing circumstances.

6.1 Travel Survey

It will clearly be important to understand people's reasons for travelling the way they do, any barriers to changing their behaviour and their propensity to change. This will enable the most effective initiatives to be identified, and conversely less effective initiatives can be modified or replaced to ensure the best outcomes are achieved.

To monitor the travel plan, a travel questionnaire should be conducted of all residents and staff. Surveys results should be reported annually by the TPC or building manager to senior management and used to inform funding allocation for successful programs/ removal for unsuccessful programs. Based on the review the travel plan should be updated to reflect changing circumstances.

An example format for the resident survey is provided below.

Q1: What is your work/school/university post code? ____

Q2: If you work, how do you usually travel to work? (Select one)

- ☐ Walk / run
- ☐ Bicycle
- ☐ Bus
- ☐ Train
- ☐ Combination bus and train
- ☐ Drive a car
- ☐ Passenger in a car
- ☐ Other (explain)_____

Q3: What time do you usually leave for work in the morning?

Q4: Other than travelling to work, what is your main mode of transport around Sydney? (Select one)

- ☐ Walk / run
- ☐ Bicycle
- ☐ Bus
- ☐ Train
- ☐ Combination bus and train
- ☐ Drive a car
- ☐ Passenger in a car
- ☐ Other (explain)_____

Q5: To facilitate transport programs, may we share your contact details with a neighbour?

- ☐ Yes – I'll walk
- If 'yes' please provide your email here: _____

- Yes – I'm a cyclist
If 'yes' please provide your email here: _____
- Yes – I'm a public transport passenger
If 'yes' please provide your email here: _____
- No

An example format for the employee survey is provided below.

Q1: *What is the post code of where you live?* ____

Q2: *How do you usually travel to work?* (Select one)

- Walk / run
- Bicycle
- Bus
- Train
- Combination bus and train
- Drive a car
- Passenger in a car
- Other (explain)_____

Q3: *What time do you usually leave for work in the morning?*

Q4: *Other than travelling to work, what is your main mode of transport around Sydney?* (Select one)

- Walk / run
- Bicycle
- Bus
- Train
- Combination bus and train
- Drive a car
- Passenger in a car
- Other (explain)_____

Q5: *To facilitate transport programs, may we share your contact details with a neighbour?*

- Yes – I'll walk
If 'yes' please provide your email here: _____
- Yes – I'm a cyclist
If 'yes' please provide your email here: _____
- Yes – I'm a public transport passenger
If 'yes' please provide your email here: _____
- No

6.2 Review In-house Programs

The annual resident and employee travel survey would assist the TPC in the review of the GTP. If required, the plan would be updated, in consultation with Council Planners or Sustainable Transport Officer.

Other feedback provided to the TPC should be used to update programs as well. Sample feedback could include: email responses to programs, monitoring the bike/ car parking spaces used, hits on a website, activity within social networking groups related to transport programs, transport complaints and participants at events.

People like to be part of a successful plan. Residents and employees should be kept informed of green travel achievements, e.g. send out email bulletins, make announcements during meetings, or have a dedicated column within internal/ external publications. Advertise success to residents and employees as part of a sustainability and green campaign for the estate.

6.3 Gaps

During occupancy, it may be that transport deficiencies are identified. Some examples may include:

- provision of car-pool priority spaces may be required as demand grows
- bicycle spaces and lockers for residents and visitors as demand grows.

Transport deficiencies would be tracked by the travel coordinator, these issues may need to be revisited if identified as an issue during monitoring.

Melbourne

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

Sydney

A Level 16, 207 Kent Street
SYDNEY NSW 2000
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 Level 4, 15 Moore Street
CANBERRA ACT 2600
P +612 6263 9400
E canberra@gta.com.au

Adelaide

A Level 5, 75 Hindmarsh Square
ADELAIDE SA 5000
PO Box 119
RUNDLE MALL SA 5000
P +618 8334 3600
E adelaide@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