



Proposed Student Accommodation at 13-23 Gibbons Street, Redfern Green Travel Plan

Prepared for:
The Trust Company (Australia) Ltd as Trustee for
the WH Gibbons Trust

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The Transport Planning Partnership

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APPENDICES

A. TRANSPORT ACCESS GUIDE

1 Introduction

1.1 Background

The proposed student accommodation development is located at 13-23 Gibbons Street, Redfern. The proposed development involves the demolition of the existing residential flat building and construction of a new 18-storey student accommodation building comprising 488 units and 1,020m² of communal area plus minor retail tenancy.

The Transport Planning Partnership (TPPP) has prepared this Green Travel Plan (GTP) on behalf of Wee Hur to manage the future travel demand following the occupation of the development.

1.2 Types of Travel Plan

There are two distinct types of travel plan

1. To change the travel behaviour at an existing site (i.e. reduction of car use, especially if only used by one person). Such plans would be implemented at large administrative buildings (e.g. hospital government). This would aim to achieve a modal shift when compared against a stated benchmark. This would include monitoring the plan over a period after opening with more measures introduced if stated objectives were not achieved.
2. To influence the travel behaviour of a site prior to it being occupied. This can include such measures as locating the site next to a railway station, reducing on-site parking (especially for commercial buildings). Providing information and ensuring the development ties in with the sustainable active travel initiatives outside of the site. This travel plan would aim to achieve a lower car driver mode upon occupation compared with comparable sites.

This GTP falls into the latter category where the majority of green travel initiatives are provided prior to occupation of the site.

1.3 The Role of a Green Travel Plan

The purpose of a GTP is to encapsulate a strategy for managing travel demand that embraces the principles of sustainable transport. In its simplest form, this GTP encourages use of transport modes that have low environmental impacts, for example active transport modes including walking, cycling, public transport, and better management of car use.

Active transport presents a number of interrelated benefits including:

- improved personal health benefits

- reduced traffic congestion, noise and air pollution caused by motor vehicles
- greater social connections within communities, and
- cost savings to the economy and individual.

In order to ensure that the GTP meets its intended objectives, a review of '*best practice*' guidelines such as the City of Sydney '*Guide to Travel Plans*' and '*The Essential Guide to Travel Planning*' prepared by the United Kingdom Department of Transport, has been undertaken.

From the above review, the key themes applicable to the GTP include:

- **Site audit and data collection:** A desktop audit has been undertaken in order to identify and document the existing issues and opportunities relevant to site and its accessibility particularly by non-car modes. Opportunities to improve amenity, incentivise non-car travel and remove barriers to the use of sustainable transport modes are then dealt with under the Site-Specific Measures, detailed in Section 5.1. Notably, as the site is not currently occupied by the proposed development, travel surveys at a similar development have been used to inform the baseline data for modal splits to/from the subject site.
- **Audit of policies:** An audit of key policy documents has been undertaken to assist with defining the direction and purpose of the GTP, aligned with the key targets and objectives from a local and regional perspective.
- **Private vehicle travel management:** This GTP provides a strategy to reduce travel by private vehicles with nil car parking provision.
- **Local alliances:** The development of relationships between the Proponent and various stakeholders (such as the Council, the Roads and Maritime Services and Transport for New South Wales) will assist the Proponent in delivering improved transport options.

1.1 Travel Plan Pyramid

The GTP will need to be tailored to the proposed development site to ensure appropriate measures are in place for the different land uses to promote a modal shift away from car usage.

The key elements of the GTP are shown in the Travel Plan Pyramid in Figure 1.1.

Figure 1.1: Travel Plan Pyramid



All elements in the Travel Plan Pyramid are critical to the success of the GTP, but Figure 1.1 illustrates that the key foundations to ensure the success of a GTP are:

- **Location** – proximity to existing public transport services and proximity to mixed land uses, e.g. shops and services, such that walking or cycling becomes the natural choices, and
- **Built Environment** – provision of high-quality pedestrian and cycling facilities, end-of-trip facilities and reduced car parking provision to encourage sustainable transport choices.

1.2 Drivers of the Travel Plan

There are a number of social, environmental and economic drivers for developing and implementing a GTP for developments as detailed below.

1.2.1 Car Parking

Car parks utilise valuable land resources and impact amenity. If the area continues to grow and there is no modal shift towards non-car transport modes, the car parking demand could increase significantly. As such, the provision of car parking must reflect the site's proximity to public transport to influence a modal shift to more sustainable transport modes. As the site is located within close proximity to Redfern Station and the future Waterloo Metro Station, there is strong justification to provide significantly less or no car parking to manage travel demand to/from the site. Furthermore, the cost to provide parking is significant and therefore, there are strong economic imperatives to reduce car parking demand by incentivising non-car travel modes i.e. to provide affordable housing for students.

1.2.2 Environmental Impacts

The transport sector (road, rail, air and ship) is Australia's third largest source of greenhouse gas emissions (GHG), accounting for 18 per cent of emissions in Australia in 2015 (Climate Council of Australia, 2016). Mitigating this impact is a key driver of the GTP. Within Australia, the transport sector has the highest rate of growth of GHG emissions per year having risen by 51 per cent since 1990 with private vehicles responsible for almost half of transport emissions. In comparison, travel modes such as walking and cycling have the lowest emissions while public transportation has significantly lower impact than the private vehicles.

1.2.3 Health Benefits

The use of sustainable transport modes can have wide-ranging health benefits due to a corresponding reduction in greenhouse gas emissions and increase in physical activity from walking and cycling. The shift from private cars to sustainable transport "can yield much greater immediate health "co-benefits" than improving fuel and vehicle efficiencies" (World Health Organisation, 2011). The potential benefits can include reduced respiratory diseases from better air quality, prevention of heart disease, some cancers, type 2 diabetes and some obesity-related risks.

1.2.4 Social Equity

Transport has a fundamental role in supporting social equity, that is the equitable distribution of services, amenities and opportunities. The provision of sustainable transport modes can provide a more affordable alternative to car use. As such, it offers better mobility for women, children, young people, the aged, persons with disabilities and the poor, who have less access to private vehicles, thereby enhancing social equity.

1.2.5 Site Attraction

Provision of high-quality transport facilities (public transport, cycling and walking infrastructure) has a significant impact on the accessibility and therefore attractiveness of a site. Negative experiences and costs associated with travel can reduce the competitiveness of a student accommodation site. High quality and efficient transport systems are key to attracting and retaining students. Support for active transport modes is also highly desired by students, because it improves health and productivity.

1.2.6 Education and Leadership

Student accommodation sites would have a great number of new persons coming through each year and as such, the student accommodation provider would have a unique opportunity to educate students into sustainable travel behaviours. These travel behaviours can help shape long-term travel behaviours that extend long after their completion at the organisation. Successful travel planning and education can reduce traffic impacts on the

road network while potentially supporting a positive influence on local areas by raising public transport service demand and improving amenity.

1.3 Transport Objectives

The following objectives have been identified in order to achieve the vision of the GTP:

Objective 1: Facilitate a modal shift towards more sustainable transport modes

- Improve access, safety, amenity and convenience of sustainable transport modes for travel to/from the site
- Incentivise sustainable transport modes and establish a culture of active and public transport use, and
- Improve awareness and knowledge of transport options available in the area.

Objective 2: Reduce car ownership and promote car share use

- Improve awareness and access to car share facilities available within the area
- Incentivise car share use as an alternative to owning a car, and
- Provide nil. car parking on-site to manage car use and ownership.

Objective 3: Reduce the need to travel off-site

- Provide complementary uses on-site to reduce travel requirements for students, and
- Encourage social interactions amongst students residing in the building to create a vibrant community on-site.

2 Existing Transport Policy Context

2.1 Summary of Key Policy Directions

The review of existing relevant policy clearly illustrates a number of themes that should inform the approach to ongoing management of transport demand, and investment in the transport network. These themes include:

- provision of high-quality local transport infrastructure and improved bike paths and networks and improving accessibility and connectivity
- address car parking issues in key locations, including residential and business districts and encouraging active transport, and
- create connected, liveable communities where people can walk, cycle and use public transport to promote healthier, active communities.

A summary of the existing policy framework documents is provided in Table 2.1.

Table 2.1: Summary of Policy Framework

Policy/Strategy	Key Aims/Objectives/Goals
City of Sydney Council	
Liveable Green Network Strategy	The Liveable Green Network Strategy is part of City of Sydney's plan to create a well-connected pedestrian and cycling network. The City is working towards building a 200km cycling network including 55km of separated cycleways. The objective of the strategy is to achieve the Sustainable Sydney 2030 targets where 10% of journeys in the local area are to be made by bicycle and at least half to be made on foot.
City Centre Access Strategy	The City of Sydney City Centre Access Strategy has been designed to improve all transport modes within the city centre. The strategy aims to reduce traffic congestion within the city centre and to efficiently move residents and visitors around the area. The strategy includes the following completed and planned programs: ▪ resurfacing of roads ▪ installation of smart poles, replacement and relocation of existing street light and traffic light poles ▪ intersection upgrades, and ▪ lane marking improvement and kerb adjustment to upgrade bus lanes and corridors. Roads and Maritime Services, in partnership with Transport for NSW's Sydney Coordination Office, is in charge of improving the road infrastructure in the CBD to achieve the objectives of the strategy.
Walking Strategy	The CoS Walking Strategy aims a more accessible, attractive and safer city to explore on foot. The City will invest over \$15 million per year on footpath upgrades, pedestrian crossings and additional footpaths to implement the strategy.

Policy/Strategy	Key Aims/Objectives/Goals
NSW State Government	
New South Wales Long Term Transport Masterplan (NSW State Government, 2012)	The NSW Long Term Transport Masterplan guide the NSW Government's transport funding priorities over the next 20 years. As part of this Plan, a long-term action is to build a Second Sydney Harbour rail crossing, new CBD line and new CBD stations that will connect Redfern to Chatswood via the CBD. These new stations will relieve pressure on Central, Wynyard and Town Hall Stations. In addition to this, the Plan intends to upgrade the existing Redfern Station to address station access and connectivity issues and provide safe and convenient interchange with bus, pedestrian and cycle routes. Further to this, the provision of a new metro station at Waterloo will help relieve pressure at the existing Redfern Station by providing additional public transport choice and links.
Future Transport Strategy 2056	The Strategy aims to increase the mode share of public transport services and reduce the use of single occupant vehicles. The Proposal will look to reduce private vehicle travel and aligning with the objectives of the Strategy.
Greater Sydney Region Plan: A Metropolis of Three Cities – Connecting People	The site is well located to contribute towards creating a 30-minute city. The close proximity of the site to the Redfern Station means students can easily access the site via public transport modes. The site thus aligns with the objects of the Plan in creating accommodation near jobs, services, education and public transport facilities to contribute towards a 30-minute city.
Sydney's Cycling Future, Cycling for Everyday Transport (NSW State Government, 2013)	Sydney's Cycling Future's key strategy is to improve cycling infrastructure. The Three Pillars of Sydney's Cycling Future include: ▪ investing in separated cycleways ▪ providing connected bicycle networks to major centres and transport interchanges promoting better use of our existing network; and, ▪ engaging with our partners across government, councils, developers and bicycle users.

2.1.1 Greater Sydney Region Plans: 30-minute City

As indicated above, the Greater Sydney Commission's Greater Sydney Region Plan, the key purpose of the plan is to deliver a 30-minute city where jobs, services and quality public transport spaces in easy reach of people's home.

However, a recent study conducted by Deloitte Access Economics found that only 75 of the 313 Sydney neighbourhoods could currently be deemed to have easy access to major job hubs and other key services within half an hour. Based on the findings of the Deloitte study and work undertaken by Arup, a number of key performance criteria have been identified in order to achieve a 30-minute city:

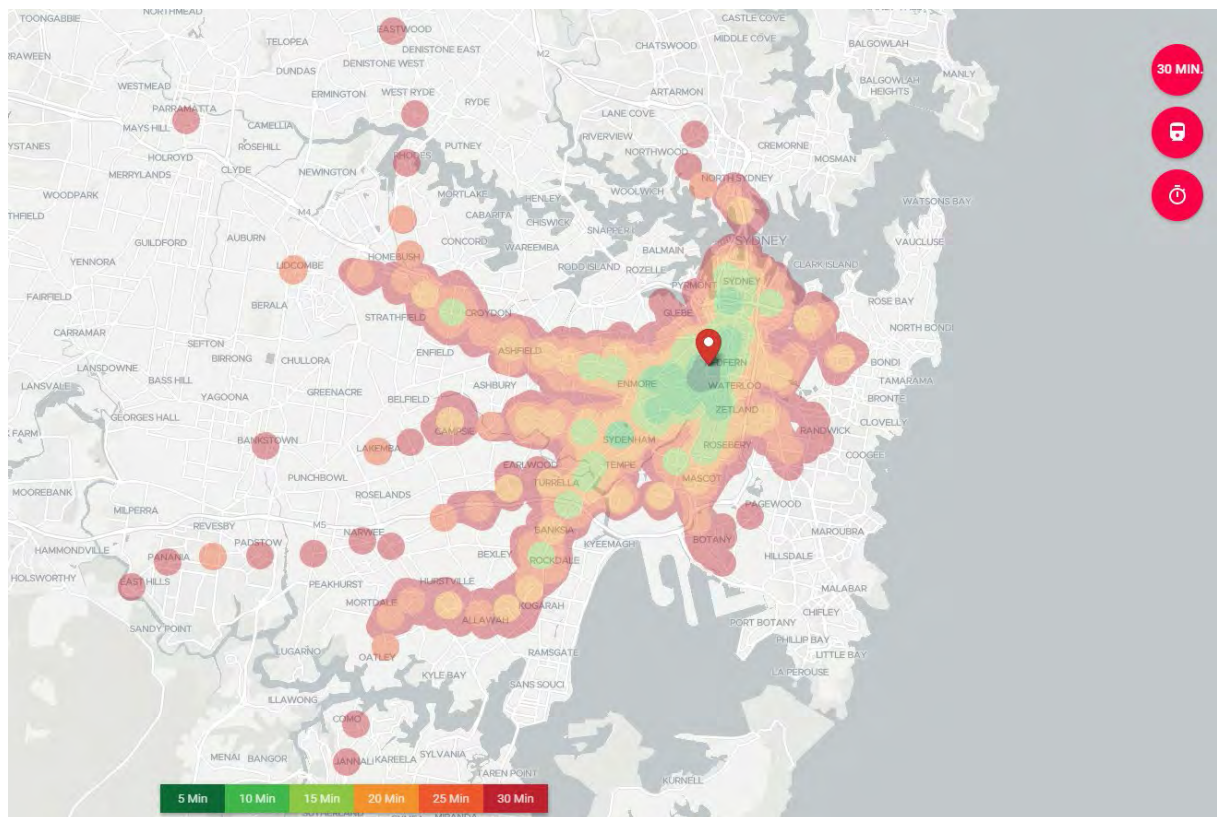
- **Access to healthcare** – hospitals provide an important facility to many people and play a role for employment, education and training facilities. Parking is often limited at hospitals and as such, access via a variety of transport modes are required.
- **Access to retail services** – access to all forms of retail (supermarkets and specialist stores) is essential to achieve a 30-minute city. There has already been an increase in the number of mixed-use developments within Sydney to create micro-communities, which provide mixed retail services, residential, commercial and community facility uses.
- **Access to schools** – access to good schools relies on housing affordability, which also shape where teachers live. In particular, many students have good access to local schools, however some have to travel outside their catchment areas for specialist and

selective schools. As such, it is important to create strong transport link to provide good access to local schools and connect teachers with their place of residents and work.

- **Access to further education facilities** – public transport links for TAFE and universities are vital as students and teachers often travel out of the local catchment to the educational facility as they are often located in areas with high property prices.
- **Quality of public transport facilities** –Whilst Sydney is a liveable city; it is often constrained by transport issues. As such, the provision of good quality, reliable public transport facilities are essential to achieve a 30-minute city.
- **Access to jobs** – people being able to live close to their jobs is fundamental to delivering a 30-minute city. The current Sydney CBD has the highest concentration of jobs but as found by the Deloitte study, the average one-way commute for those travelling into the CBD from outside the city is 63 minutes. The locations with the best access to jobs currently are located near to railway stations, or close to major employment centres such as the Sydney CBD.
- **Access to residents** – a way of minimising travel needs is to locate jobs and services close to where residents live.

The subject site is located in close proximity to tertiary and further education institutions such as University of Sydney, University of Technology Sydney, University of New South Wales, University of Notre Dame and TAFE. Further to this, the site is also in close proximity to Sydney CBD which is a key employment hub which offers work opportunities for students, as well as abundant public transport options to/from the City, as shown in Figure 2.1.

Figure 2.1: 30-minute Catchment by Transit



Source: Route360

Based on the above, the site is considered to align with the key objectives of the Sydney Greater Region Plan by contributing towards the creation of a 30-minute city.

3 Existing Transport Context

3.1 Existing Public Transport Facilities

The site is well serviced by public transport services, including rail and bus services, being located 200m (or 3-minute walk) south-east of Redfern Station.

The site's proximity to existing public transport services is shown in Figure 3.1.

Figure 3.1: Site Proximity to Public Transport Facilities



Redfern Station is serviced by a number of railway lines that provide connections to various destinations across the Sydney Metropolitan area including the Sydney CBD. In addition to this, the station is also served by intercity trains of Blue Mountains Line, Central Coast and Newcastle Line and South Coast Line.

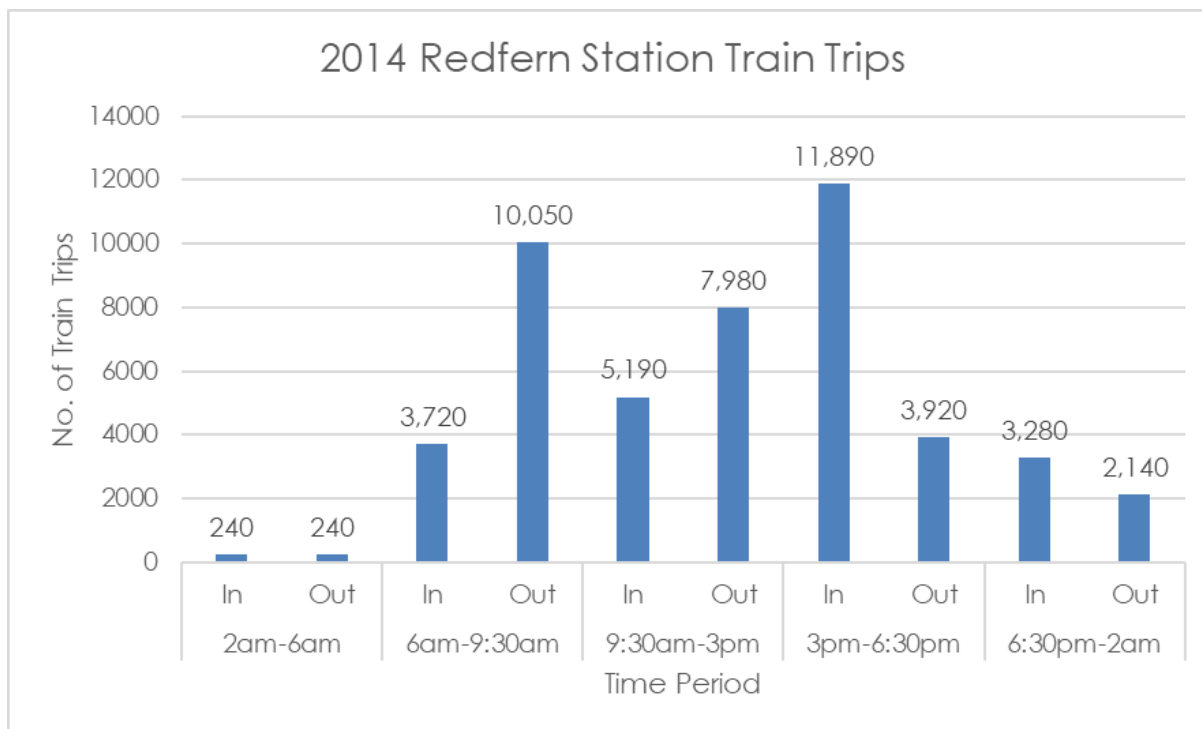
A summary of rail services and associated peak hour frequencies at Redfern Station is provided in Table 3.1.

Table 3.1: Train Services at Redfern Station

Route	Route Description	Typical Weekday Frequency	
		Morning Peak	Evening Peak
T1 North Shore, Northern, and Western Line	Berowra to City via Gordon	3-6 mins	3 mins
	City to Berowra via Gordon	3 mins	3-5 mins
	Hornsby to City via Strathfield	15 mins	15 mins
	City to Hornsby via Strathfield	15 mins	15 mins
	Emu Plains or Richmond to City	3 mins	3-7 mins
	City to Emu Plains or Richmond	3-7 mins	3 mins
T2 Inner West and Leppington Line	Parramatta or Leppington to City	2-5 mins	5-12 mins
	City to Parramatta or Leppington	2-5 mins	2-6 mins
T3 Bankstown Line	Liverpool or Lidcombe to City via Bankstown	3-6 mins	3-15 mins
	City to Liverpool or Lidcombe via Bankstown	4-15 mins	4-15 mins
T4 Eastern Suburbs and Illawara Line	Waterfall or Cronulla to Bondi Junction	3 mins	3 mins
	Bondi Junction to Waterfall or Cronulla	3-6 mins	3 mins
T8 Airport and South Line	Macarthur to City via Airport of Sydenham	15 mins	-
	City to Macarthur via Airport of Sydenham	-	15 mins
Blue Mountains Line	Bathurst and Lithgow to Central	30 mins	-
	Central to Bathurst and Lithgow	-	30 mins
Central Coast and Newcastle Line	Newcastle Interchange to Central via Strathfield or Gordon	30 mins	-
	Central to Newcastle Interchange via Strathfield or Gordon	-	30 mins
South Coast Line	Bomaderry or Port Kembla to Central and Bondi Junction	20 mins	20 mins
	Bondi Junction and Central to Bomaderry or Port Kembla	30 mins	20 mins

Based on the recent Train Statistics 2014 by Bureau of Transport Statistics (BTS), a total of 48,640 people travel to/from Redfern Station throughout the day, making the station the sixth busiest station in NSW. A summary of recorded station barrier counts is provided in Figure 3.2.

Figure 3.2 2014 Station Barrier Counts at Redfern Station



Source: Bureau of Transport Statistics (BTS)

In addition to this, the subject site is located within 400m catchment radius of a number of bus stops. The closest bus stop is Redfern Station Stand B which is located about 50m (or one-minute walk) from the site (as shown in Figure 3.1).

Table 3.2 presents a summary of the existing bus routes and associated frequencies within the immediate vicinity of the site.

Table 3.2: Summary of Bus Routes and Frequencies

Route	Route Connectivity	Typical Weekday Frequency During Peak Hour
305	Mascot and Central	20 mins
308	City and Marrickville Metro via Redfern	20 mins
309	Matraville and Central	10 mins
310	Eastgardens and Central via Botany Road	12 mins
L09	Matraville and Redfern	15 mins
N11	City and Cronulla	N/A; Night ride bus only
N20	City and Riverwood	N/A; Night ride bus only

Reference: Transport for NSW

In addition to this, bus patronage surveys collected on Thursday, 24 November 2016 (sourced from TfNSW's open data website) indicates that existing bus routes 305, 308, 309 and 310 within the immediate vicinity of the site currently operate below capacity during peak commuter times. As such, it is noted that there is spare capacity on the existing bus network to cater for additional trips if required.

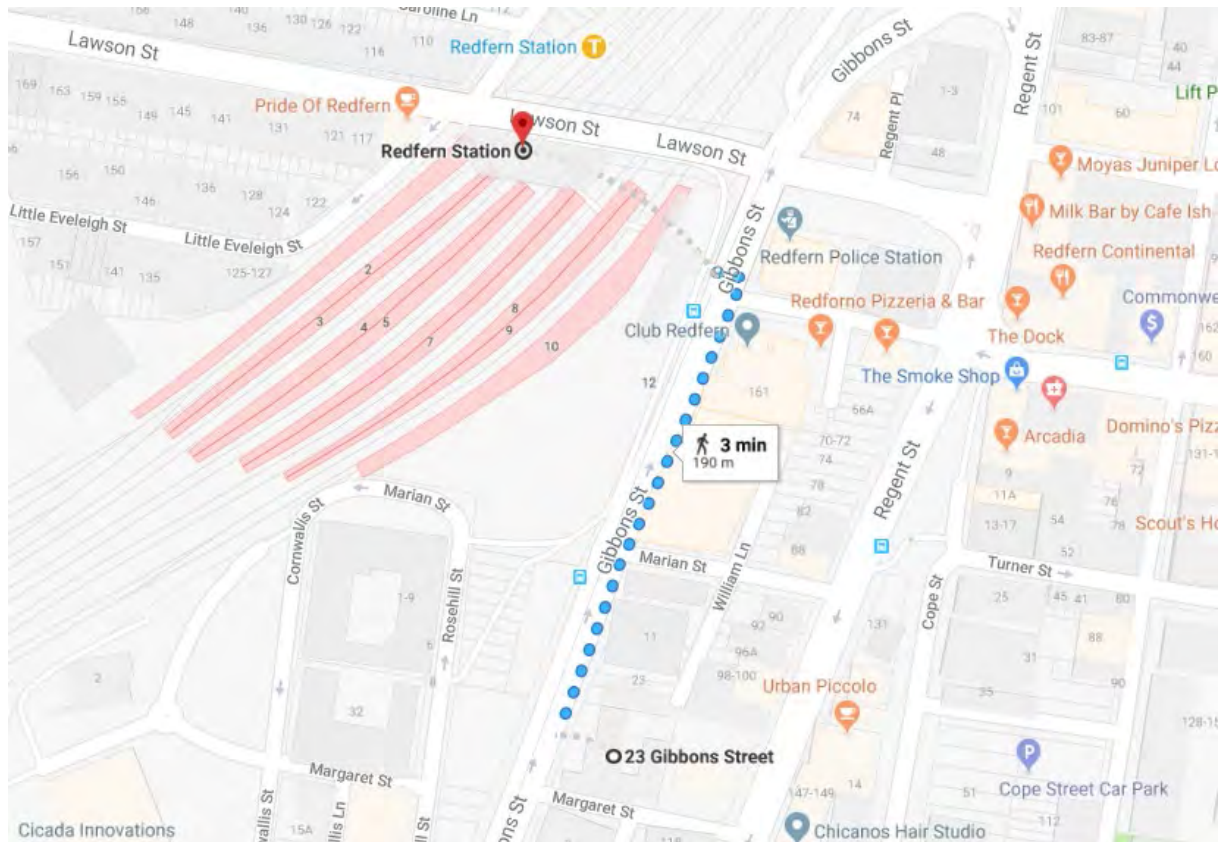
Notwithstanding this, TTPP notes there will be future public transport improvements and upgrades in the area. In fact, it is noted that the future Sydney Metro Line which is currently under construction and expected to be operational in 2024, includes a new station near the intersection of Raglan Street and Cope Street. The proposed Waterloo Metro Station is located approximately 400m from the subject site. This new metro line will provide high frequency rail services to the northwest region of Sydney. Therefore, there would be an opportunity to incentivise sustainable modes, particularly when considering the future vision of the Redfern area as noted in Section 2.

3.2 Pedestrian Infrastructure

Well-established pedestrian facilities are provided within the vicinity of the site. Sealed pedestrian paths are provided on either side of Gibbons Street, Regent Street, Margaret Street and Marian Street. A formal pedestrian crossing is also available at the signalised midblock crossing located 170m north of the site on Gibbons Street, near Redfern Street, to provide safe, dedicated passage for pedestrians to/from Redfern Station.

The walking route from the site to Redfern Station is shown in Figure 3.3.

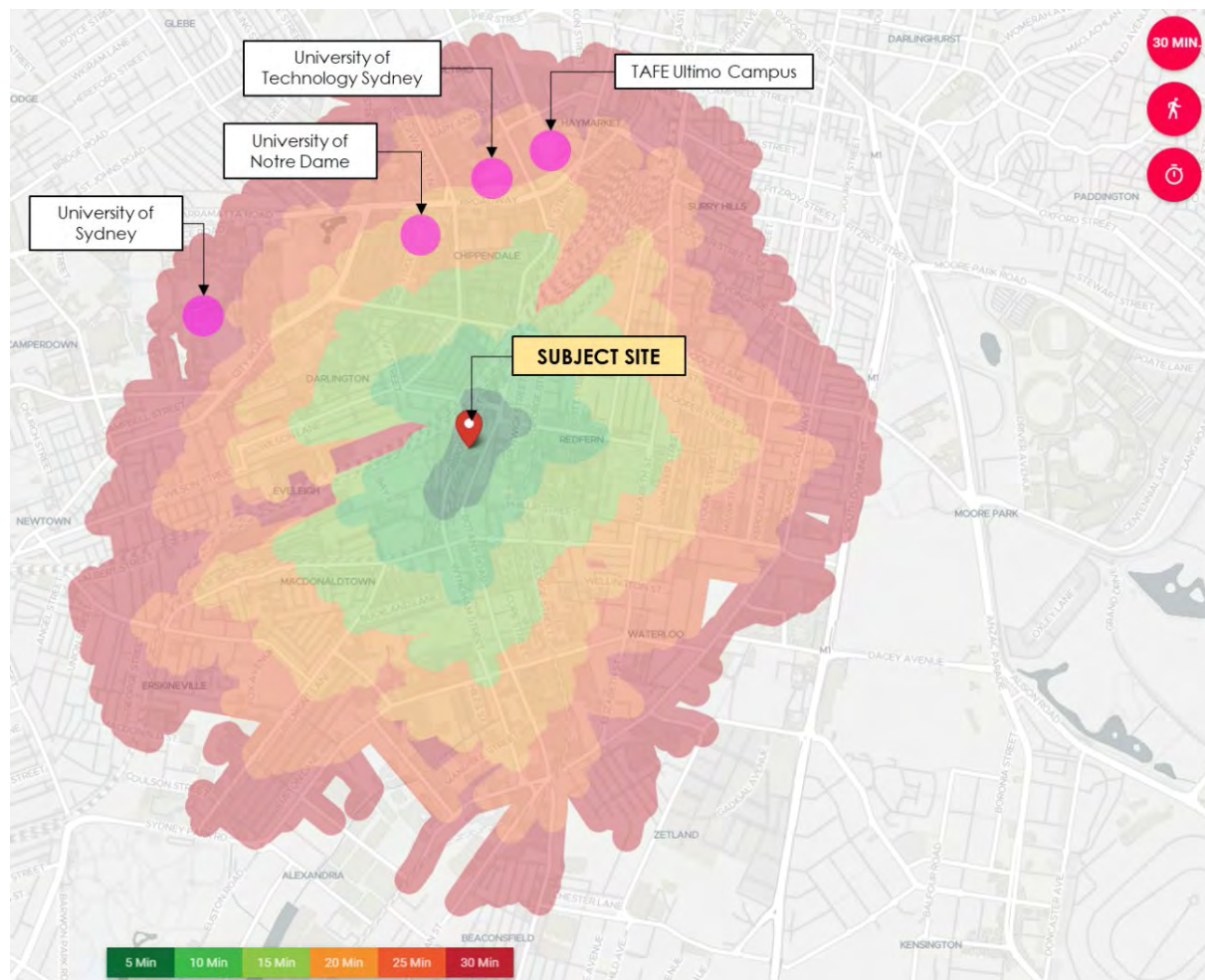
Figure 3.3: Walking Route to Redfern Station



Source: Google Maps Australia

In addition to this, the site is conveniently located within walking distance from a number of key educational establishments in the area. The site's proximity to surrounding educational establishments within a 30-minute walking catchment is shown in Figure 3.4.

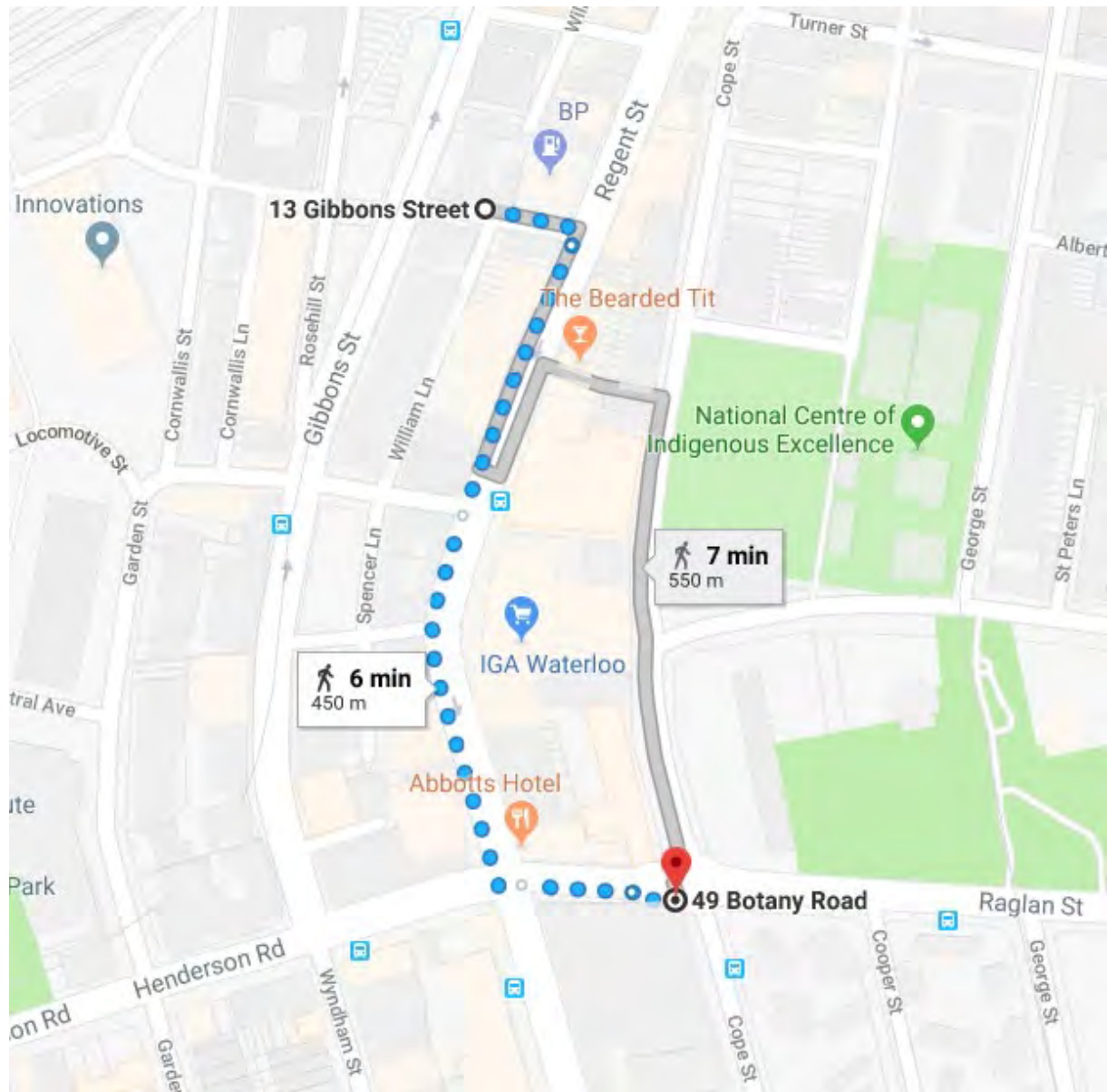
Figure 3.4:30-minute Catchment by Walking



Source: Route360

In addition, as noted previously, the future Waterloo Station will be located approximately 400m south of the site and will provide an additional public transport link as part of the Sydney Metro line. The future Waterloo Station is proposed to be located at the corner of Raglan Street and Cope Street. This equate to a six-minute walk to/from the site, as shown in Figure 3.5.

Figure 3.5: Walking Route to Future Waterloo Station



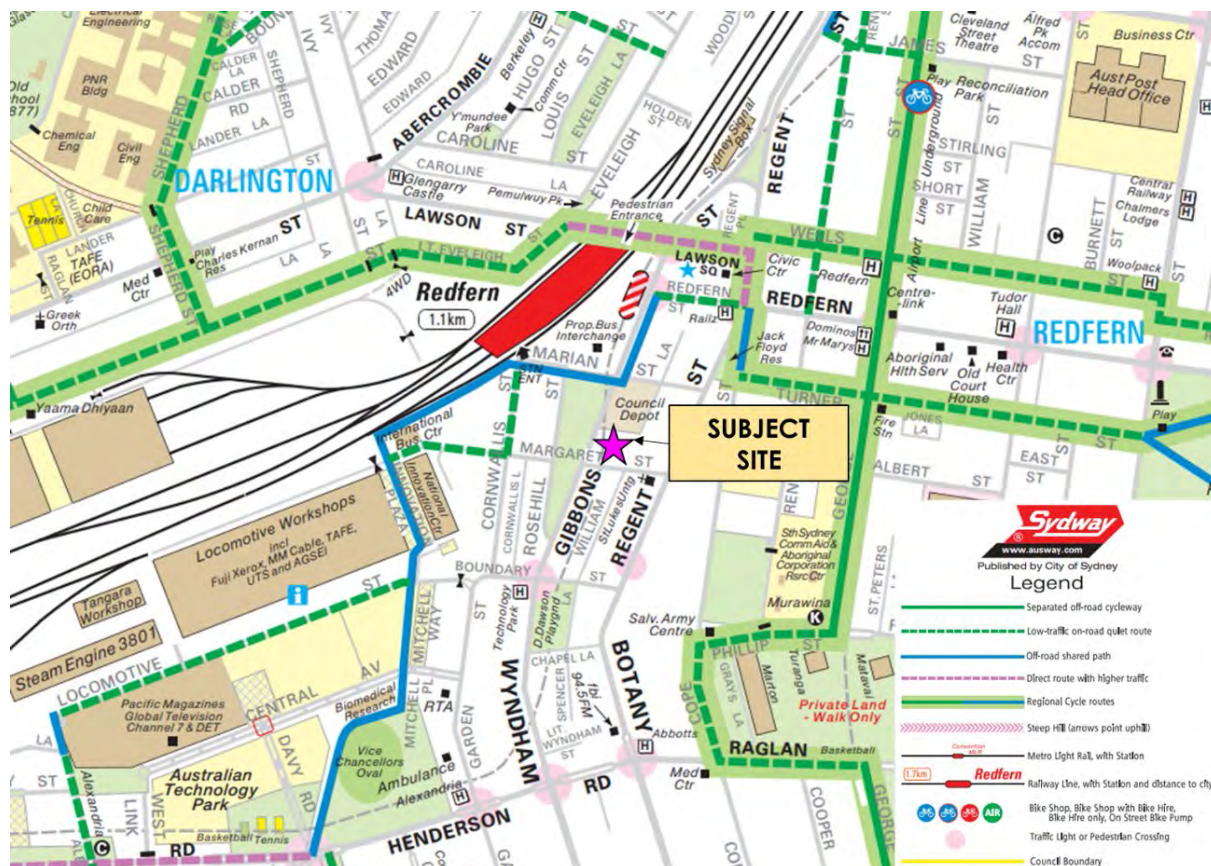
Source: Google Maps Australia

3.3 Cycling Infrastructure

An off-road shared path is provided along Gibbons Street and Marian Street north of the site which provides good cycle linkages to Redfern Station and commercial and retail establishments. This shared path also connects to on-road and off-road cycling paths towards University of Sydney, University of Technology Sydney, University of Notre Dame, TAFE and Sydney CBD.

Figure 3.6 presents a map of the existing cycleways within the immediate vicinity of the site.

Figure 3.6: Cycleway Map



Source: Sydney Cycleways

3.4 Car Share Facilities

Car share scheme is a flexible, cost effective alternative to car ownership and is a convenient and reliable way for residents to use a car when they need one. GoGet is a car share company operating in Australia, with a number of pods located within the area.

Car share is a concept by which members join a car ownership club, choose a rate plan and pay an annual fee. The fees cover fuel, insurance, maintenance, and cleaning. The vehicles are mostly sedans, but also include SUVs, station wagons and vans. Each vehicle has a home location, referred to as a "pod", either in a parking lot or on a street, typically in a highly-populated urban neighbourhood. Members reserve a car online and/or telephone and use a swipe card to access the vehicle.

A study was commissioned by the International Carsharing Association in 2016¹, to review the impact of the car share services in Australia after more than a decade of operation. The study focuses on the City of Sydney council area which had about 20,000 users and 805 car share vehicles at the time of the study. The findings of the study indicate that car share users

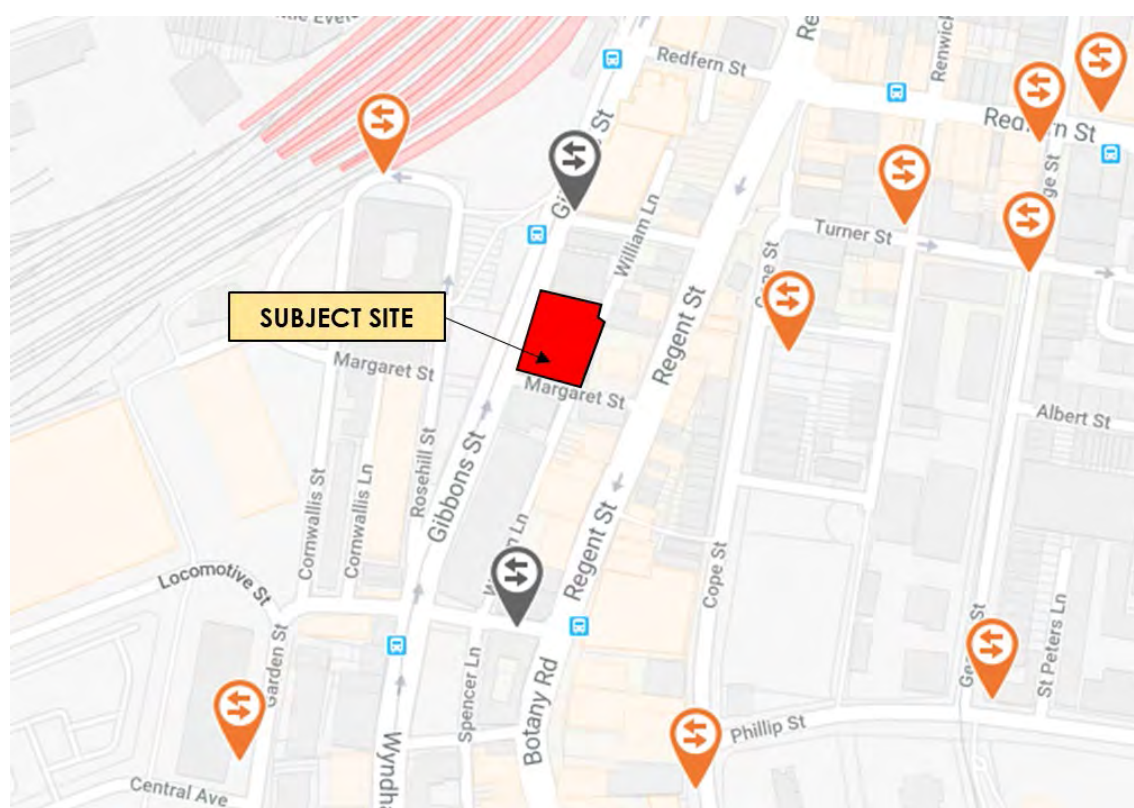
¹ Phillip Boyle & Associates, January 2016, *The Impact of Car Share Services in Australia*

reduce their overall vehicle kilometres travelled (VKT) per year by 50 per cent compared people who own a private vehicle. The resulting impact is reduced congestion on roads, lower levels of CO₂ pollution, fewer casualty accidents and an increase in use of active transport methods.

Notably, the City of Sydney Council has reported that “a single car share vehicle can replace up to 12 private vehicles that would otherwise compete for local parking”.

Figure 3.7 shows the location of the existing GoGet pods within the immediate vicinity of the site.

Figure 3.7: Location of Existing GoGet Pods



Source: GoGet Australia, <https://www.goget.com.au/find-cars/>

Figure 3.7 indicates that there are nine car share facilities available within the immediate vicinity of the site. Based on statistical information outlined above, these nine car share vehicles could theoretically replace the need for 108 private vehicles in the local area.

Notwithstanding this, promoting the use of these existing car sharing facilities should be undertaken to ensure existing car share facilities are used to cater for any vehicle trips associated with the proposal if required.

3.5 Bike Share

Dockless bike share is a new program which provide users with the opportunity to ride on a bike anytime. Users will be required to download the app to reserve and unlock a bike. Bicycles can be used for return or one-way trips and can be picked-up and returned on bicycle parking areas, train stations, or even on footpaths provided that the footpath is not too busy and is wide enough so the bicycles will not impede pedestrians within the footpath.

In December 2017, six Sydney councils (including City of Sydney) devised the Inner Sydney Bike Share Guidelines. These guidelines set out expectations for bike share operators and users and apply across the six municipalities of Canada Bay, City of Sydney, Inner West, Randwick, Waverley and Woollahra.

Bike sharing programs offer flexibility and opportunity for people to choose active transport for short trips, especially for those who are less likely to own bicycles.

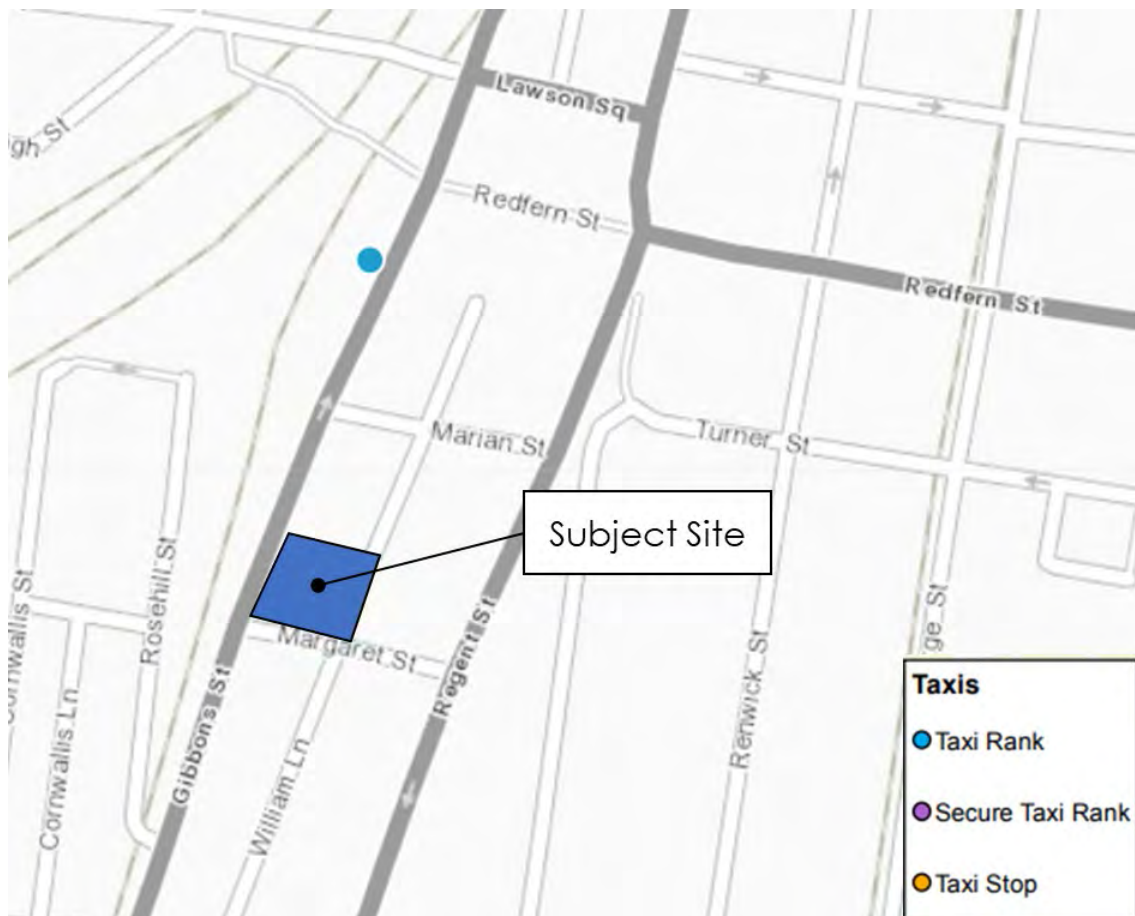
Several dockless bike sharing services such as moBike and Lime are available in the Sydney. It is noted that Lime is an electric-assisted bike and has approximately 2,000 bikes available in the city streets since its launch in November 2018.

3.6 Taxi/Uber

Taxis and Uber are point to point transport services that provides flexible convenient options. Customers can choose the route the driver will take for a faster travel time and to destinations that cannot be reached by public and active modes of transport. Taxis are normally stationed at designated taxi ranks where customers can enter any available taxis waiting to departe.

Figure 3.8 shows the location of the nearest taxi rank from the site. The taxi rank is signposted as a “taxi zone” and is approximately 45m long.

Figure 3.8: Nearby Taxi Rank



Source: City of Sydney (<https://www.cityofsydney.nsw.gov.au/explore/getting-around/public-transport/taxis>, accessed 6/12/2018)

In addition to this, taxis would also be roaming the surrounding area and can be hailed from the kerb on the street. However, some taxis may be unavailable or occupied servicing another customer at the time. This is identified when taxis with the light on top of the vehicle are switched off.

Uber is a recent point to point transport service that has recently increased in popularity over the recent years. Customers can download the app and organise a trip by inputting the destination and pick up location. In addition to this, customers can select the size of vehicle when traveling in groups or sharing the trip.

Uber can only be organised through the use of the app via a mobile device. It is expected that students would predominately use Uber due to its growing population and lower cost options compared to taxis.

Both taxi and Uber allow people with common origins and/or destinations to share a vehicle, and reduce overall car trips on the road network (e.g. single passenger trips) with the convenience and reduced costs of a private vehicle. This is considered favourable from a sustainable transport perspective.

4 Mode Share Targets

The aim of the GTP is to encourage modal shift away from private vehicles by implementing measures that influence the travel patterns of residents living at the proposed student accommodation development. The implementation of the GTP would be regularly monitored to ensure that the GTP is having the desired effect. The success of the GTP is measured by setting modal share targets and identifying the measures and actions that have the greatest impact.

As the site is not currently occupied, the mode share targets for the site has been based from a travel survey questionnaire conducted by Cardno at the existing Urbanest Quay Street, Haymarket student accommodation site at 157-163 Cleveland Street, Redfern. It is expected that similar travel patterns would arise from the proposed development as it is located within close proximity to public transport services and key tertiary education campuses such as University of Sydney, UTS, and TAFE.

The key findings of the surveys from the Cardno report are as follows:

- *76% of residents studied at either University of Sydney or UTS (within walking distance of either development site)*
- *For trips with a study purpose, 0% of respondents travelled via car, 23% used public transport, 65% walked, and 1% travelled via motorbike/scooter*
- *For trips with a work purpose, 0% of the respondents travelled via car, 23% used public transport, 59% walked, 2% travelled via motorbike/scooter, and 2% took a taxi*
- *For trips with a social purpose (going out, dinner etc), 0% of the respondents travelled via car as a driver, 2% travelled as a car passenger, 33% used public transport, 61% walked, 0% travelled via motorbike/scooter or bicycle and 4% took a taxi*
- *Bicycles are the vehicle of choice for the respondents; 14% said that they owned or planned to own a bicycle during their stay at urbanest. This compares with 10% for a car and 6% for a motorbike/scooter*
- *Of those that took public transport, approximately 70% outlined that this was their preference as it was either faster, cheaper or more convenient than the other alternatives*
- *14% of respondents said they either owned, or planned to own, a bicycle during their residences at Quay Street (note that this compares consistently with the requirements of the draft City of Sydney DCP for student accommodation that bicycle parking should be provided at rates of 1 per 6 beds, or approximately 17% of demand).*
- *Of the residents that owned a car, 40% parked in a paid parking space and 60% used a friend or relatives' space*
- *For 55% of residents, their friends and relatives did not visit by car and of those visitors who arrived by car, 66% visited once per week or less.*

Based on the above, it should be noted that 0% of the respondents travelled by car for either study, work or social purposes, with a majority of respondents travelling either by public transport or walking. On this basis, the mode share target for car driver for the site should be 0%.

Table 4.1 provides a summary of projected modal splits based on Cardno's survey.

Table 4.1: Method of Travel Modal Splits at a Similar Site

Method of Travel	Purpose of Travel		
	Study	Work	Social
Car Driver	0%	0%	0%
Car Passenger	0%	0%	2%
Public Transport	34%	23%	33%
Taxi	0%	2%	4%
Motorbike	1%	2%	0%
Bicycle	0%	14%	0%
Walk	65%	59%	61%
Total	100%	100%	100%

In addition to this, it is noted that City of Sydney's Liveable Green Network Strategy aims to target at least 10% of journeys in the local area by bicycle and at least 50% to be made by walking. Based on the travel modal splits at a similar site (as shown in Table 4.1), this is considered easily achievable based on the characteristics of student accommodation sites.

As such, the overall mode share targets for the proposal are summarised in Table 4.2.

Table 4.2: Mode Share Targets

Method of Travel	Targets %
Car Driver	0%
Car Passenger	2%
Public Transport	25%
Taxi	3%
Motorbike	0%
Bicycle	15%
Walk	55%

5 Methods of Encouraging Sustainable Transport

To achieve the objectives of the GTP, measures will be put in place to influence the travel patterns to/from the site, with a view to discourage car usage from Day One.

5.1 Site Specific Measures

5.1.1 Provision of Nil Car Parking

Student accommodation sites are categorised as “boarding houses” and therefore, practitioners assess the parking requirements under the State Environmental Planning Policy (Affordable Rental Housing) 2009. However, in retrospect, these parking requirements are considered onerous for student accommodation sites for the following reasons:

- student accommodation sites do not typically generate a demand for car parking as such sites are specifically targeted at students who do not have a car and attend nearby tertiary educational campuses
- the site has been specifically chosen as it is located near high frequency public transport and local amenities, services and recreational facilities to remove the need for car travel, and
- tenancy agreements will be imposed on students a condition that they are prohibited from bringing a car on to the site with any breaches resulting in termination of their tenancy agreement.

In this regard, it is not proposed to provide any car parking for the site. This is not dissimilar to other student accommodation sites across Australia, including other major student accommodation providers such as Urbanest, Iglu and SCAPE. In fact, the provision of nil car parking is one of the critical factors to ensure that the mode share target of 0 per cent car driver can be met for the site.

5.1.2 Walking and Cycling

A new through site link will be provided as part of the proposal to provide good connectivity for pedestrians. The link will connect William Lane to Margaret Street for pedestrians and cyclists as shown in Figure 5.1. It would also be used by service vehicles.

Figure 5.1: Future Site Link Through the Site



Source: AJ+C Architects

The proposed development includes provision of 163 bicycle parking spaces located in a secured bicycle storage area in the basement level with convenient and easy access to the ground by a ride-on-hoist. This bicycle parking well exceeds the minimum bicycle parking requirement 98 bicycle parking spaces as set out in the SEPP (Affordable Rental Housing) for boarding houses.

In addition to this, a bicycle repair room will be provided on the ground level with direct access to the through site link.

Further to this, the student accommodation provider should consider establishing a student walking and cycling group, where all students would be invited to walk and/or cycle together around the neighbourhood, followed by recreational activities/special events within the site. This initiative would help promote and encourage social inclusion, as well as promote walking and cycling as the choice of travel.

5.1.3 Public Transport

Public transport maps will be provided on noticeboards, newsletters, websites, social media to make students more aware of the alternative transport options available in the area. The format of the map will be based upon the travel access guide. This transport access guide will form part of a welcome pack for all students to ensure that they are made aware of the

available transport options. In addition to this, upon initial occupation, it is recommended for students to receive a pre-loaded Opal card (e.g. \$50 credit) upon initial occupation to ensure that travel patterns can be influenced from day one to establish better transport habits at the start of occupation.

5.1.4 Car Sharing

As detailed in Section 3.4, there are a number of existing car share facilities (e.g. GoGet) within the immediate vicinity of the site. If car use is required, students will be encouraged to use existing car share facilities in the area. Similarly, if uber or taxi is required, students will be encouraged to car share where possible to reduce single occupancy car trips. Information of the existing car share facilities within the immediate vicinity of the site will be made available to all students as part of the welcome pack. Notably, students receive a low membership fee option as part of the GoStudent membership. It is recommended that the student accommodation provider negotiate a bulk deal with GoGet to ensure students residing at the proposed development have the best options available.

5.1.5 Off-site Measures

The provision of high-quality internet services will also be provided to enable students to study on-site, rather than travelling off-site to a library or campus. This would also be accompanied by the provision of dedicated study rooms, lounge and game areas, quiet areas, cinema rooms and a gym for students residing in the building to create a vibrant community such that all the essentials for a student are made available on-site to negate the need to travel off-site.

5.2 GTP Information

The information provided within the GTP will be provided to students in the form of a package of easy to understand travel information known as a Travel Access Guide (TAG). This will be included in the welcome pack provided to students and staff.

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 brochures. 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, people are likely to ignore them.

This TAG should be available for pick up at various locations at the site such as, at front entrances and noticeboards.

A draft TAG has been prepared for the site and is provided in **Appendix A**.

5.3 Information and Communication

Several opportunities exist to provide residents and visitors with information about nearby transport options. Connecting residents 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.

Transport NSW info

- Bus, train and light rail routes, timetables and journey planning are provided by Transport for New South Wales through their Transport Info website: <http://www.transportnsw.info/>

Sydney Cycleways

- City of Sydney provides a number of services and a range of information to encourage people of all levels of experience to travel by bicycle. <http://sydneycycleways.net/>

Similarly, such phone apps as TripView display Sydney public transport timetable data and shows a summary view showing current and subsequent services, as well as a full timetable viewer. This timetable data is stored on the phone, so it can be used offline.

Connecting students via social media may provide a platform to informally pilot new programs or create travel-buddy networks and communication.

The above web links and any social media platforms may be included within the GTP/TAG.

5.4 Actions

A summary of the key strategy and framework action table is shown in Table 5.1. It should be noted that this framework action table will be updated as required. However, it is stressed that the availability of the suggested strategies from Day 1 upon occupation is a key factor in influencing travel patterns.

Table 5.1: Framework Action Table

Action	Objective	Responsibility	Timeline
1. Provide nil car parking	1, 2	Proponent	Prior to Occupation
2. Provide secure bicycle parking and a bicycle repair room	1	Proponent	Prior to Occupation

Action	Objective	Responsibility	Timeline
3. Provide public transport noticeboard at key locations within the site in the form of a travel access guide. This will also be posted on student accommodation provider's website and included as part of the welcome pack distributed to all students prior upon occupation.	1, 2	Travel Plan Coordinator	Prior to Occupation
4. Provide high quality telecommunication services and complementary uses on-site	3	Proponent	Prior to Occupation
5. Provide students with the Green Travel Plan to encourage active travel	1, 2, 3	Travel Plan Coordinator	Upon Occupation
6. Provide students with a TAG on day one of occupation and post the TAG on noticeboards, front entrances, website, social media etc.	1, 2, 3	Travel Plan Coordinator	Upon Occupation
7. Provide public transport incentives/discounts (e.g. \$50 preloaded opal cards for students) upon initial occupation	1	Travel Plan Coordinator	Upon Occupation
8. Provide discounted GoGet memberships for students and provide information of existing car share facilities in the area as part of the welcome pack for all students	2	Proponent/ Travel Plan Coordinator	Ongoing
9. Establish Walking Groups and Bicycle User Groups with associated online forums	1, 2, 3	Travel Plan Coordinator	Ongoing
10. Provide regular social events to encourage social interaction to eliminate social barriers to encourage car sharing	1, 2	Travel Plan Coordinator	Ongoing
11. Ongoing review of the GTP to introduce additional measures as required	1, 2, 3	Travel Plan Coordinator	Ongoing

6 Management and Monitoring of the Plan

6.1 Management

There is no standard methodology for the implementation and management of a GTP. However, the GTP will be monitored to ensure that it is achieving the desired benefits. The mode share targets set out in Section 4 are used in this regard to ensure there is an overall goal in the management of the GTP.

The monitoring of the GTP would require travel surveys to be undertaken with a focus to establish travel patterns including mode share of trips to and from the Site.

The implementation of the GTP will need a formal Travel Plan Co-ordinator (TPC), who will have responsibility for developing, implementing and monitoring the GTP. The TPC will be an appointed resident (student) or staff member of the proposed student accommodation (e.g. Student Accommodation Site Manager) or an independent expert.

It will also be necessary to provide feedback to residents and visitors to ensure that they can see the benefits of sustainable transport.

Indeed, there are several keys to the development and implementation of a successful GTP. These include:

- **Communications** – Good communications are an essential part of the GTP. It will be necessary to explain the reason for adopting the plan, promote the benefits of sustainable transport options.
- **Commitment** – GTPs involve changing established habits or providing the impetus for people in new developments to choose a travel mode other than car use. To achieve co-operation, it is essential to promote positively the wider objectives and benefits of the plan. This commitment includes the provision of the necessary resources to implement the plan, beginning with the introduction of the '*carrots*' or incentives for changing travel modes upon occupation.
- **Building Consensus** – It will be necessary to obtain broad support for the introduction of the plan from the residents and visitors.

Once the plan has been adopted, it is essential to maintain interest in the scheme. Each new initiative in the plan will need to be publicised and marketing of the project as a whole will be important.

7.2 Remedial Actions

A continuous review will take place to identify remedial actions should the modal share targets not be achieved. However, the following measures are proposed both as discrete

measures (e.g. car share) and those being proposed as part of the proposed development masterplan such as increase in bicycle parking facilities.

Alternatively, the TPC could work with council to see how the measures might be aligned with those identified in councils Active Travel study.

7.3 Consultation

The results of the Green Travel Plan will be communicated with the student accommodation provider, students and staff via the noticeboard and/or newsletters.

As such, it is recommended that a summary letter is produced presenting the results of the survey within one month of the undertaking of the travel surveys (say 6-months post-occupation). The letter/report may be also appended to the GTP and submitted to Council for comment. Subsequent surveys would be undertaken after one, three and five years of occupation.

In relation to the conduct of the travel surveys, it is expected that these will be either undertaken by the building owner/student accommodation provider via the Travel Plan Coordinator (TPC) or a third party expert appointed by the building owner/student accommodation provider.

Communication to the student accommodation provider, students and staff may be carried out in a similar form by public display of the GTP on noticeboards. Alternatively, a news article on the matter could be included on newsletters and/or an online website.

7 Conclusion

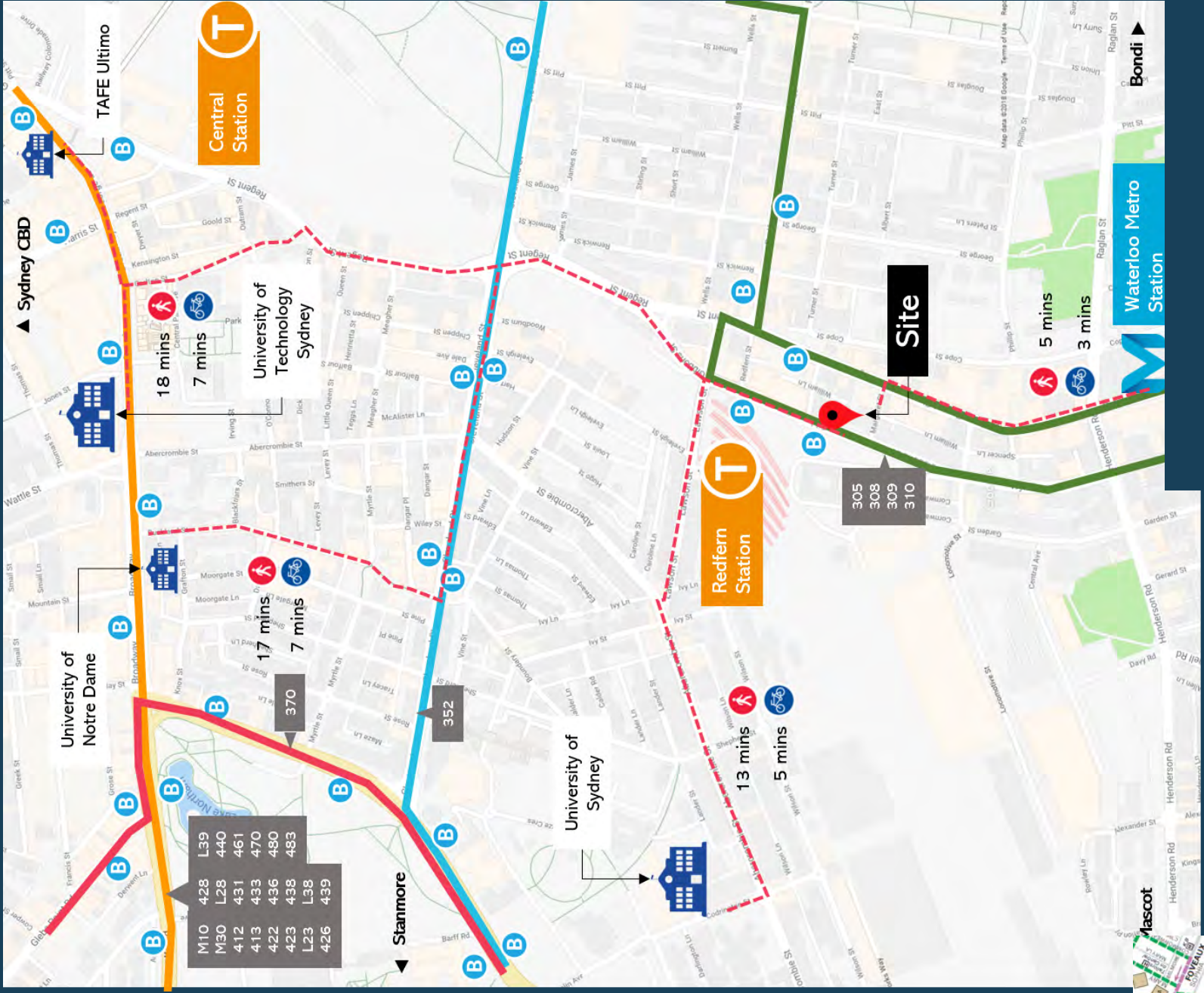
This GTP notes a number of transport demand management initiatives to assist with achieving a zero per cent target car driver mode share for this proposed student accommodation.

It is however recommended that travel surveys be undertaken 6-months post-occupation of the site, with this draft GTP updated accordingly to suit the site's modal splits and findings of the travel surveys, including identification of opportunities and constraints to influence further changes to the travel behaviour of the residents wherever possible.

Subsequent surveys should be undertaken after one, three and five years of occupying the development.

Appendix A

Transport Access Guide



13-23 GIBBONS ST, REDFERN

STUDENT ACCOMMODATION

TRAVEL ACCESS GUIDE

Use active and public transport



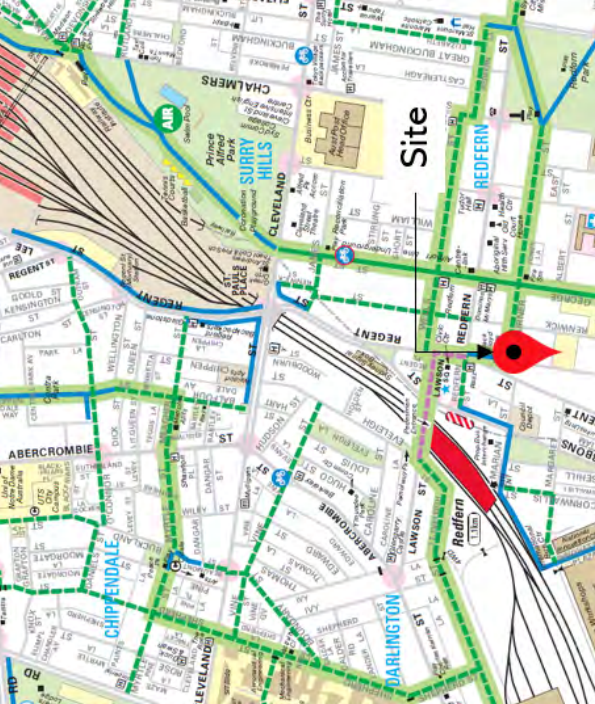


CYCLE

There are many cycleways in the proximity of the site, providing connectivity to Sydney CBD, Inner Sydney and Inner West, and educational institutions

Cycling time to University and Colleges

- University of Sydney – 5 mins
- University of Notre Dame – 7 mins
- University of Technology Sydney – 7 mins
- TAFE Ultimo – 7 mins
- University of New South Wales – 19 mins



TRAIN REDFERN STATION

Train Services

- T1** North Shore, Northern & Western Line
- T2** Inner West & Leppington Line
- T3** Bankstown Line
- T4** Eastern Suburbs & Illawarra Line
- T8** Airport & South Line

Journey Times

- 2 minutes to Central
- 15 minutes to North Sydney
- 16 minutes to Bondi Junction
- 22 minutes to Parramatta
- 29 minutes to Airport



BUS

Frequent bus services are available on Gibbons Street and Redfern Street

Route Description

- 305** Central Railway Square to Stamford Hotel
- 308** City Gresham St to Marrickville Metro via Redfern
- 309** Central Railway Square to Port Botany Depot
- 310** Central Railway Square to Eastgardens via Botany Road



WALK

Schools within walking distance

- University of Sydney – 13 mins
- University of Notre Dame – 17 mins
- University of Technology Sydney – 18 mins
- TAFE Ultimo – 18 mins



Plan your trip using Sydney's Trip Planning Tool: transport.nsw.info/trip

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