

Proposed Inner Sydney High School, Surry Hills, DRAFT GTP

Prepared for FMJT Architects/Department of Education
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Table of Contents

1.0 Introduction	1
2.0 Existing Conditions.....	2
2.1 SITE LOCATION.....	2
2.2 CURRENT USE OF THE SITE	3
2.3 ROAD NETWORK	3
2.4 TRANSIT	4
2.4.1 RAIL.....	4
2.4.2 BUSES	4
2.4.3 LIGHT RAIL	5
2.5 BICYCLES	5
2.6 PEDESTRIANS	6
2.7 JOURNEY TO WORK	7
2.8 LOCAL LAND USE	10
3.0 Future Conditions.....	11
3.1 LAND USE PROJECTIONS	11
3.2 TRANSIT	11
3.2.1 LIGHT RAIL	11
3.2.2 ONGOING RAIL DEVELOPMENT	12
3.2.3 BUS NETWORKS AND SERVICES	13
4.0 Proposed Development	14
4.1 PROPOSAL DESCRIPTION	14
5.0 Green Travel Plan.....	16
5.1 GENERAL	16
5.2 OBJECTIVES	16
5.3 TARGETS	16
5.2 ACTIONS	18
5.2.1 INFORMATION ABOUT AVAILABLE TRAVEL CHOICES	18
5.2.2 MAKE PROVISION FOR BICYCLES	18
5.2.3 MONITOR TRANSIT COVERAGE OF SCHOOL CATCHMENT	18
5.2.4 RESTRICT CAR PARKING AVAILABILITY	18
5.2.5 MONITOR PEAK DEMAND	19
5.2.6 MONITORING OF TRANSIT CAPACITY	19
5.3 PLAN MECHANICS	20

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1.0 Introduction

FMJT on behalf of the NSW Department of Education commissioned High Range Analytics Pty Ltd (HRA) to prepare a draft Green Travel Plan for the proposed development of the Inner Sydney High School (ISHS), that would be located at 244 Cleveland Street, Surry Hills.

This report provides a draft green travel plan, with the following chapters:

- existing conditions around the site in Chapter 2
- describes future conditions around the site in Chapter 3
- describes the proposal in Chapter 4
- the green travel plan is described in Chapter 5.

It is noted that this will be a new school and a final draft GTP will be developed by the Department prior to occupation.

2.0 Existing Conditions

2.1 Site location

The subject site is located in the north-west corner of the intersection of Cleveland Street and Chalmers Street in Surry Hills. The broader context of the site is shown in Figure 1 below.

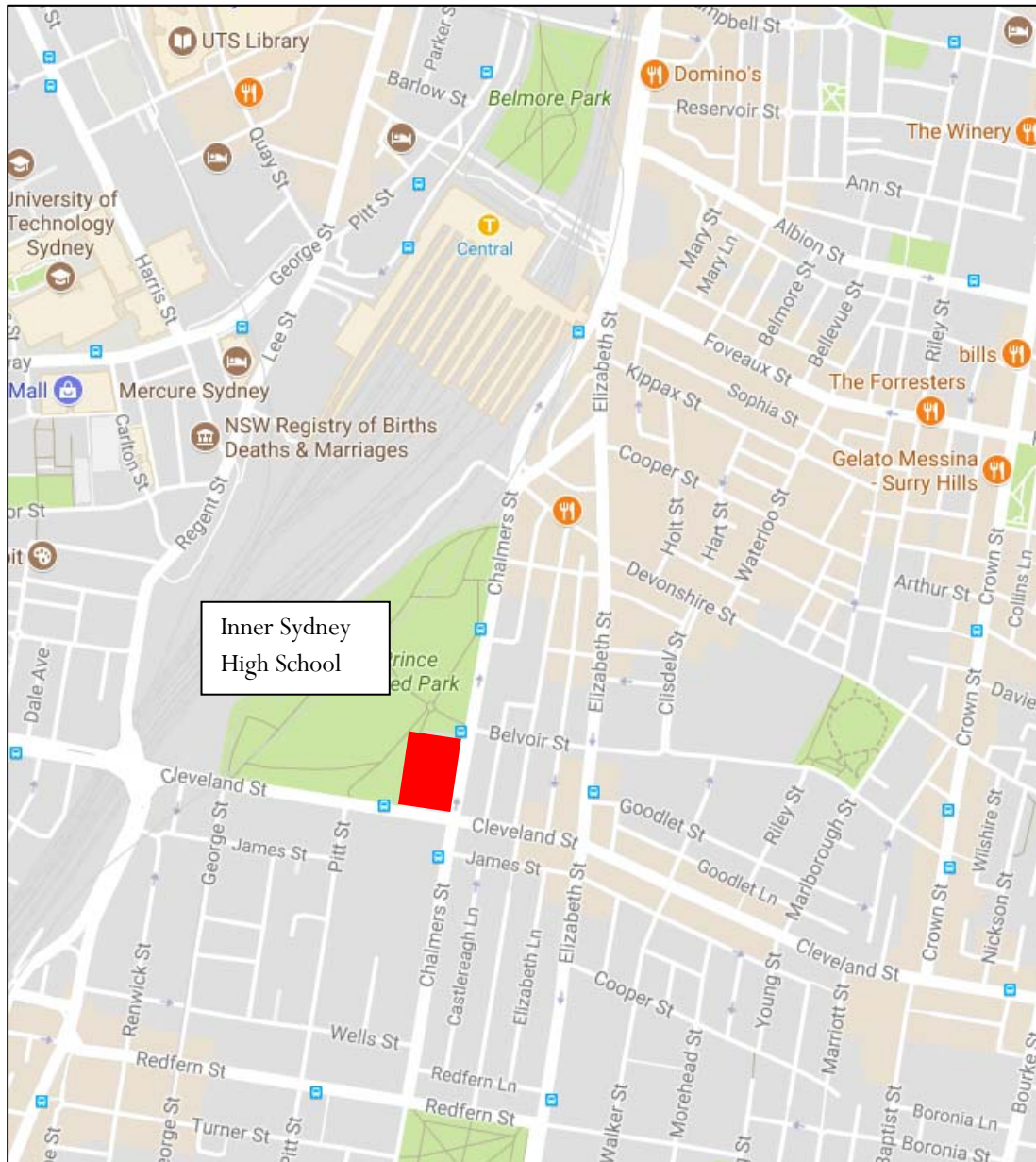


FIGURE 1 – INDICATIVE SITE LOCATION

The site is located in area served by a high-density transit network, which covers a broad range of areas of inner and middle Sydney, with good rail access to parts of outer Sydney. This transit network is currently being upgraded and there are active plans for further improvements.

In addition to the existing and future improved transit network, the site's location, at the southern end of Sydney CBD, places it within easy reach of a number of academic, educational, sporting and cultural facilities, which would provide enrichment opportunities for the students. Examples of these include:

- The local universities with their teaching and sporting resources: UTS on and around Broadway, Sydney University at the western end of Cleveland Street, and UNSW, a short bus/light rail ride away to the south east
- The Australian Museum on College Street
- Dixon Library on Macquarie Street
- NSW Parliament on Macquarie Street
- Town Hall and other performance spaces, such as Belvoir Street Theatre, Seymour Centre, Angel Place Recital Hall and the Sydney Opera House.

These facilities can be reached on foot or by transit.

The area around the site has experienced rapid urban change over the past fifty years, with the movement of resident populations back into the inner-city suburbs (such as Surry Hills, Waterloo, Zetland) being a marked trend of the past twenty or so years, as these areas have de-industrialised. This provides a densely populated area from which students of the Inner Sydney High School may be drawn.

2.2 Current use of the site

The subject site currently accommodates Cleveland Street Intensive English High School which includes some 360 students and 40 staff. The existing school presently accommodates five interconnected buildings constructed since 1867. The total gross floor area of the site is approximately 7,072 m².

The site provides a small car park with access via a 3.0m wide entry/exit driveway from Cleveland Street.

2.3 Road network

The key roads around the site are discussed below.

Cleveland Street which runs along the southern frontage of the site and connects City Road at the west with areas to the east of South Dowling Street/ANZAC Parade. It is the first reasonably direct east-west road south of Park Street in the city, and as such it carries substantial volumes of traffic. It intersects with a number of north-south roads.

Chalmers Street, which runs along the eastern frontage of the site, is a one-way northbound road from Redfern to Central, where it merges with Elizabeth Street.

Elizabeth Street, is a one-way southbound road, approximately 170m east of the site and parallel with Chalmers Street, which connects the northern part of the CBD with Bourke Street at Waterloo.

Chalmers Street and Elizabeth Street act as a one-way pair in function, with outbound bus routes using Elizabeth Street and inbound¹ buses using Chalmers Street.

Approximately 350m west of the site is the intersection of Cleveland Street and Regent Street, which provides a major north-south movement function south of Cleveland Street, and, north of Cleveland Street, Regent and Abercrombie Street provide a one-way pair (Regent Street is southbound and Abercrombie Street is northbound). It forms a part of a road alignment along the western side of the city, through Ultimo and Pyrmont, linking to ANZAC Bridge and to the Western Distributor, into the city or across the eastern harbour crossings.

In addition to these major roads, local streets south and east of the site, as well as to the west of Regent Street, provide good pedestrian permeability and good levels of pedestrian amenity (see Section 2.6 below). Streets

¹ Inbound and outbound used here denote: into the City and out of the City respectively.

such as Pitt Street and George Street, south of Cleveland Street, provide good quality pedestrian conditions, with lower levels of vehicular traffic, supporting facilities and provide an attractive alternative to the use of busier roads. Similar conditions are found elsewhere around the site.

2.4 Transit

2.4.1 Rail

The site is within walking distance of both Central Station (approximately 420m via Chalmers Street) and Redfern Station (approximately 780m via Redfern Street, Pitt Street).

The rail services on offer at these two locations provide very broad coverage of the Sydney metropolitan area. Almost all rail services in Sydney call at Central Station and Redfern is similar, with the exception of the Airport Rail Line which does not.

Also, there are bus connections between the subject site and both Redfern and Central Stations.

2.4.2 Buses

Chalmers and Elizabeth Street support major bus corridors from the south and south east. In addition, route 352 runs along Cleveland Street, providing an 'inner cross regional' function, linking between Marrickville Metro and Bondi Junction.

Buses currently operating along Chalmers Street/Elizabeth Street are listed below with indicative frequencies² during school start and finish times:

- Route 305 – Mascot to Railway Square (3 outbound services in the hour in the morning and two inbound services in the hour in the afternoon)
- Route 308 – Marrickville to City (no outbound in the morning and one per hour in the afternoon no inbound in the morning and in the afternoon)
- Route 309 – Port Botany to City (5 per hour inbound and outbound in the morning 3 to 5 outbound in the afternoon and 4 to 9 per hour inbound in the afternoon)
- Route 310 – Eastgardens to City (3 per hour outbound in the morning 4 per hour in the afternoon, 4 per hour inbound in the morning and 3 to 5 per hour in the afternoon)
- Route 343 – Kingsford to Chatswood (5 to 12 per hour outbound in the morning and 6 to 8 in the afternoon, 11 to 19 per hour inbound in the morning and 9 to 13 per hour in the afternoon)
- Route 372 – Coogee to Railway Square (6 to 8 per hour outbound in the morning and 4 to 5 per hour in the afternoon, 4 to 6 per hour inbound in the morning and 5 per hour inbound in the afternoon)
- Route 393 – Little Bay to Railway Square (3 to 4 per hour outbound in the morning and 5 to 10 per hour in the afternoon, 2 to 9 per hour inbound in the morning and 4 to 10 per hour in the afternoon)
- Route 395 – Maroubra Beach to Railway Square (2 per hour outbound in the morning and 3 to 4 per hour in the afternoon, 3 to 4 per hour inbound in the morning and 2 per hour in the afternoon)
- Route M20 – Mascot to Gore Hill (5 to 6 per hour outbound in the morning and 5 per hour in the afternoon, 7 per hour inbound in the morning and 5 to 6 per hour in the afternoon)
- Route M50 – Coogee to Drummoyne (5 per hour outbound in the morning and afternoon, 6 per hour inbound in the morning and 4 to 6 per hour in the afternoon).

² Indicative frequencies are generally the number of services past the site in the morning between 7 to 8 and 8 to 9am and in the afternoon between 3 to 4 and 4 to 5pm. Here, inbound means to the north (into the City) and outbound means to the south (out of the City).

These services are accessed from a stop on Chalmers Street (adjacent to the subject site #201015) for northbound and from a stop on Elizabeth Street (approximately 250m walk from the subject site #201082). The services provide a reasonably broad coverage of the district around the school. During school start and finish times there is about a bus roughly every two minutes in each direction along the north south corridor (Chalmers Street and Elizabeth Street).

Cleveland Street bus service:

- Route 352 – Marrickville to Bondi Junction (two to three services an hour each way)

Adjacent to Central Station, at Eddy Avenue and at Railway Square, additional extensive bus networks can be accessed. These nodes are approximately 700m from the site, but can be accessed by combining a short journey on an inbound service on Chalmers Street and a walk, and vice versa in the other direction.

2.4.3 Light rail

Light Rail services operate between Central and Dulwich Hill can be accessed from Central Station. A number of bus services operating along Chalmers Street and Elizabeth Street connect to Railway Square via Eddy Avenue, making a reasonably convenient connection to this existing light rail service.

2.5 Bicycles

The following figure provides a summary of the emerging bicycle network in the general area around the subject site.

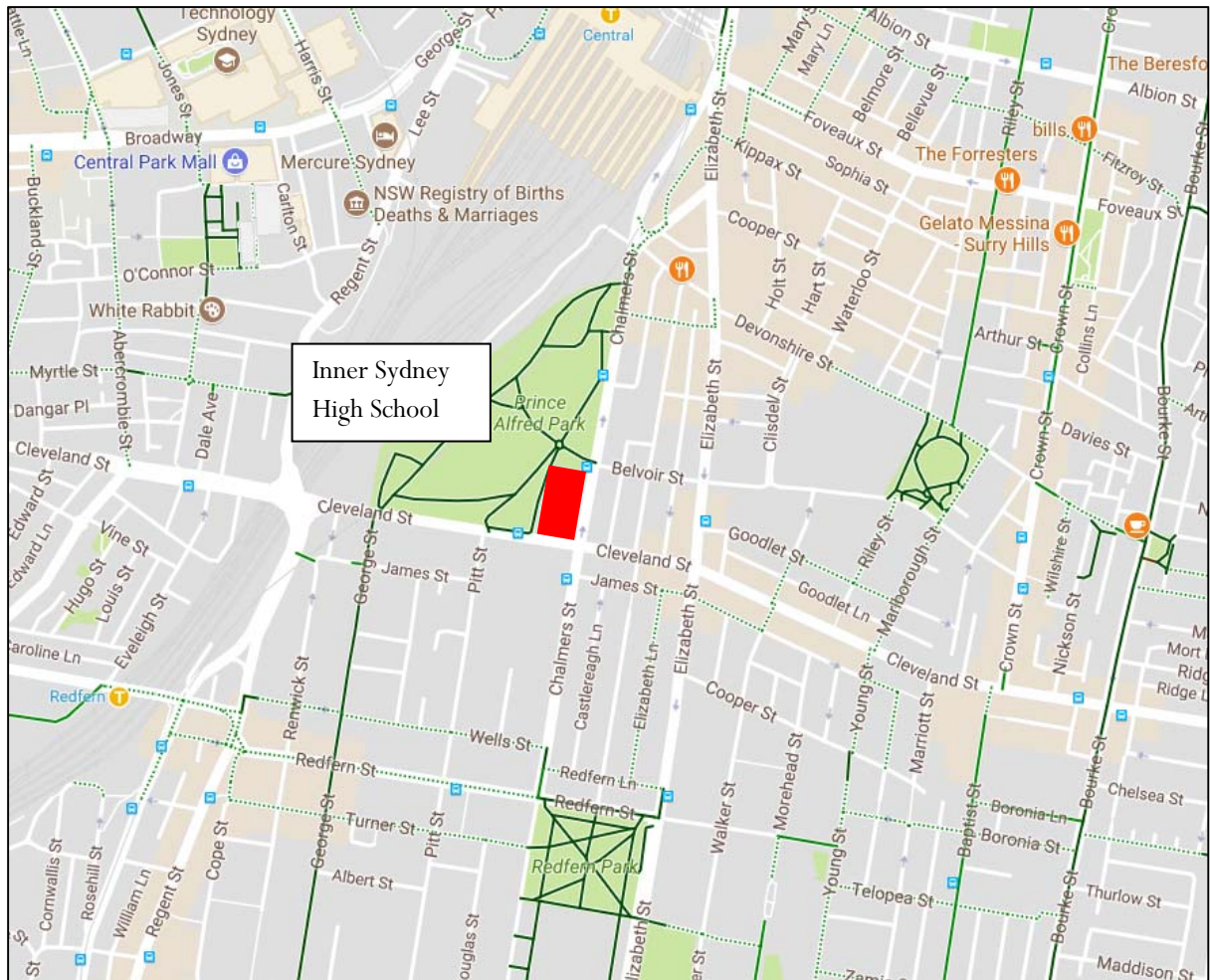


FIGURE 2 – EXISTING BICYCLE FACILITIES

A review of the bicycle facilities indicates a high standard of connectivity with links through parks (such as Prince Alfred Park and Redfern Park) that align with on-street links.

The bicycle path along George Street is a good example of the high-quality facilities available in the area around the subject site. It is on-street with segregation from vehicular traffic within a traffic calmed environment with high amenity. This route connects with east-west links, including quiet streets, such as Stirling Street and Short Street, as well as with busier streets such as Redfern Street. At Cleveland Street, this route connects into Prince Alfred Park, which provides an off-street connection to the subject site.

The bicycle network around the site also has a high level of regulatory and way-finding signage.

The bicycle network in the general area is considered to be of high utility for users of the subject site.

2.6 Pedestrians

The site is located in an existing pedestrian network with full width footpaths provided in both Chalmers Street and Cleveland Street.

The signalised intersection of Chalmers Street and Cleveland Street provides pedestrian facilities on all approaches. Other signal controlled intersections around the site include pedestrian facilities, including:

- Cleveland Street and Pitt Street

- Cleveland Street and George Street
- Cleveland Street and Regent Street
- Cleveland Street and Walker and Wilton streets
- Cleveland Street and Marlborough Street
- Redfern Street and Chalmers Street
- Redfern Street and Pitt Street
- Redfern Street and George Street

There are also signal controlled pedestrian crossings at:

- Chalmers Street near Devonshire Street
- Chalmers Street south of Eddy Avenue.

As with bicycle facilities, generally pedestrian conditions around the site are considered to be of a high standard in terms³ of:

- Amenity – there is extensive traffic calming, considerable effort has been invested in the quality of the urban design in the public realm, many of the links have a canopy for shade provided by trees and there is generally a high degree of activation and passive surveillance
- Pedestrian facilities, especially crossings, are located on desire lines
- Grades, especially to the south of the subject site, are low, making walking comfortable and easy
- There are parks and pocket parks (e.g., Reconciliation Park at the corner of James Street and George Street) that are integrated into the pedestrian network, increasing amenity
- The surface of the footpaths is generally of a high standard and there is a minimal level of footpath clutter by street furniture

These pedestrian conditions are attractive for people to walk to school and would encourage walking as a mode between the subject site and the two rail stations (Central Station and Redfern Station).

2.7 Journey to work

The Census of Population and Housing collects information about commuters' mode of travel to work. This information is processed to small areas, called travel zones by TfNSW. The most recent journey to work dataset available is from the 2011 Census⁴. This information is a useful to gauge the relative accessibility of a small area.

The figure below shows the subject site and surrounding travel zones.

³ These comments are based on a walk through the area during the early morning, focussing on the areas south of the site and east of the site

⁴ Journey to work information from the census taken in 2016 is expected to be available in November 2017

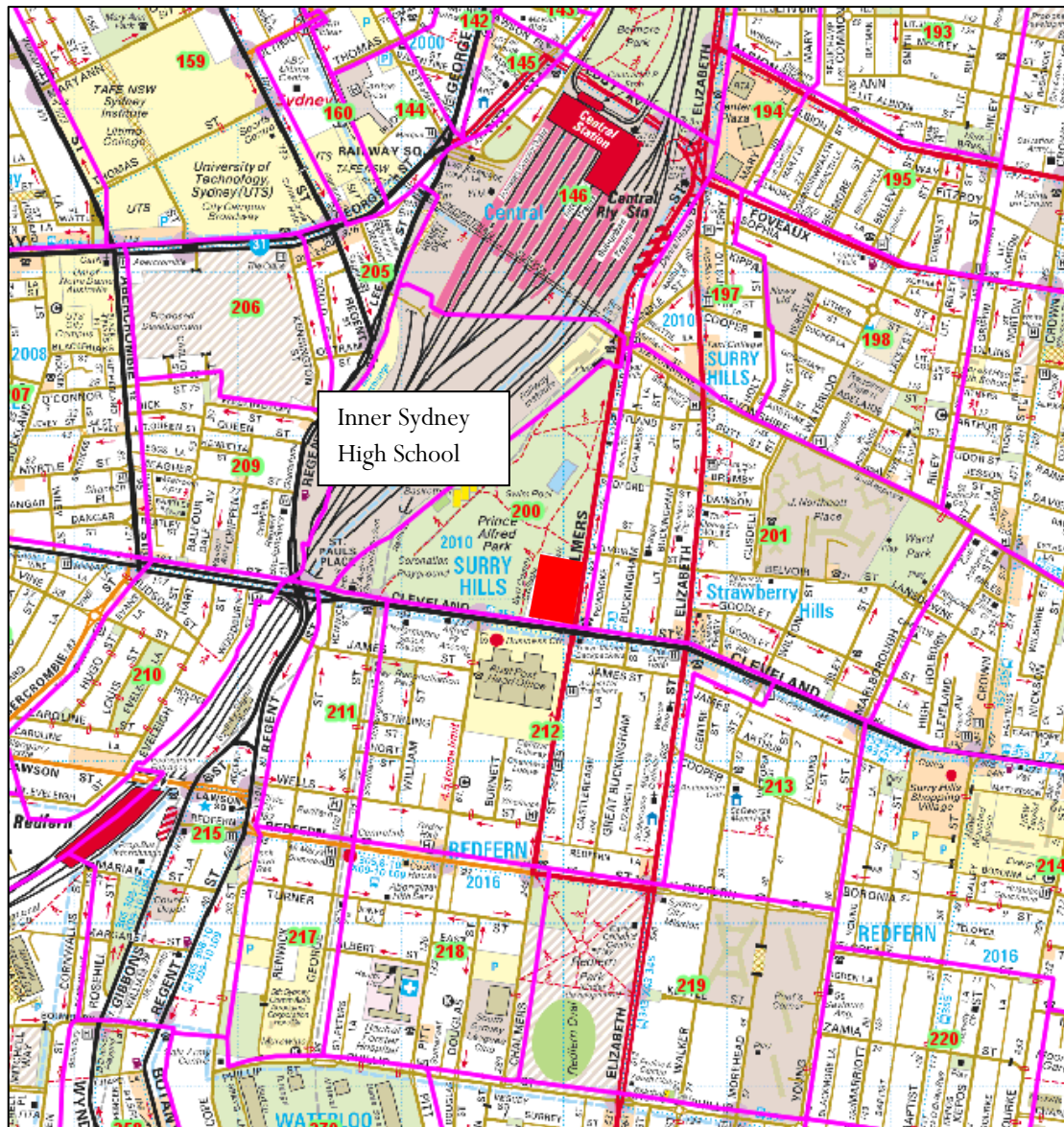


FIGURE 3 – TRAVEL ZONES AROUND SITE

Zones 200, 201, 209, 210, 211 and 212 were selected for analysis as being the closest adjacent zones to the site and are within 800 metres of the site.

Journey to work information for selected travel zones is summarised in the following tables, the first for workers who reside in these zones and the second for workers who work in these zones.

TABLE 1 – JOURNEY TO WORK FOR RESIDENT WORKERS TRAVELLING FROM TRAVEL ZONES AROUND SITE, 2011 (COUNT & % OF THOSE WHO TRAVELLED)

Travel Zone	Train	Bus	Tram/ Ferry	Vehicle driver	Vehicle passenger	Other Mode	Walked Only	Worked at Home /Did not go to work	Mode not stated	Total
200	0	0	0	0	0	0	3	0	0	3
201	359	181	7	247	27	61	367	121	12	1382
209	61	58	0	61	0	27	82	36	0	325
210	142	17	0	105	6	27	94	48	8	447
211	199	41	3	82	12	36	118	53	0	544
212	275	164	5	266	37	96	322	172	17	1354
Total	1036	461	15	761	82	247	986	430	37	4055
<i>Mode shares of those who travelled to work on census day...</i>										
Travel Zone	Train	Bus	Tram/ Ferry	Vehicle driver	Vehicle passenger	Other Mode	Walked Only			
200	0%	0%	0%	0%	0%	0%	100%			
201	29%	14%	1%	20%	2%	5%	29%			
209	21%	20%	0%	21%	0%	9%	28%			
210	36%	4%	0%	27%	2%	7%	24%			
211	41%	8%	1%	17%	2%	7%	24%			
212	24%	14%	0%	23%	3%	8%	28%			
Total	29%	13%	0%	21%	2%	7%	27%			

Source: 2011 JTW_Table12_V1, TfNSW

The above information indicates there were just over 4,000 resident workers in the zones around the site (with few residents in the travel zone containing the site⁵). This area has a very high proportion of commuters who walk to work, at 27%. Train and bus are the key methods of travel to work.

TABLE 2 – JOURNEY TO WORK FOR WORKERS TRAVELLING TO TRAVEL ZONES AROUND SITE, 2011 (COUNT & % OF THOSE WHO TRAVELLED)

Travel Zone	Train	Bus	Tram/ Ferry	Vehicle driver	Vehicle passenger	Other Mode	Walked Only	Worked at Home /Did not go to work	Mode not stated	Total
200	49	20	0	62	0	0	10	21	0	162
201	1034	292	15	771	96	117	288	293	45	2951
209	245	99	0	313	26	41	90	68	13	895
210	116	15	0	165	9	12	34	50	6	407
211	197	34	0	208	19	16	45	93	4	616
212	788	158	5	773	62	83	185	239	26	2319
Total	2429	618	20	2292	212	269	652	764	94	7350
<i>Mode shares of those who travelled to work on census day...</i>										
Travel Zone	Train	Bus	Tram/ Ferry	Vehicle driver	Vehicle passenger	Other Mode	Walked Only			
200	35%	14%	0%	44%	0%	0%	7%			
201	40%	11%	1%	30%	4%	4%	11%			
209	30%	12%	0%	38%	3%	5%	11%			
210	33%	4%	0%	47%	3%	3%	10%			
211	38%	7%	0%	40%	4%	3%	9%			
212	38%	8%	0%	38%	3%	4%	9%			
Total	37%	10%	0%	35%	3%	4%	10%			

⁵ For cells with small numbers, such as travel zone 200, a process of randomisation is applied by ABS to assist to preserve confidentiality: a frequency of 3 could mean 0, 1, 2, 3 or 4.

Source: 2011 JTW_Table13_V1, TfNSW

For people working in the zones around the subject site, transit is the key mode of travel. Of note, given that there are substantially more jobs (approximately 7,350 jobs) compared with resident workers (approximately 4,055 resident workers), implying the need for a large proportion of workers to travel into the area, the proportion who walked to work, at 10%, is considered high.

For the zones around the subject site, approximately 23% of resident workers used car to travel to work and approximately 39% of people who worked in these zones used car to travel to work. By way of comparison, car mode shares for Sydney as a whole was 68% and for Sydney – City and Inner South 36%.

For travel zones around the subject site, commuters tend to rely on transit and walking as their mode of travel.

2.8 Local land use

Based on Census information and sophisticated demographic models, TfNSW produces projections of population and employment for small areas (which are the travel zones described in the previous section). This information was extracted for the zones around the site, to provide a demographic baseline for this area, which is in Table 3.

TABLE 3 – POPULATION AND EMPLOYMENT IN TRAVEL ZONES AROUND SITE, 2011 AND 2016 (COUNT)

Travel Zone	ERP 2011	ERP 2016	Jobs 2011	Jobs 2016
200	0	0	190	198
201	3156	3216	3496	3800
209	660	800	1051	1121
210	816	820	481	509
211	907	910	696	805
212	2087	2097	2769	2921
Total	7626	7843	8683	9354

Note: ERP is estimated resident population

In summary, there are approximately 8,000 residents and 9,400 jobs within approximately 800m of the subject site.

Projections of population and employment are covered in Chapter 3.

The land around the subject site is in a mix of uses, with residential and employment land, as well as open space, such as the adjoining Prince Alfred Park.

3.0 Future Conditions

3.1 Land use projections

Small area land use projections over the next twenty years produced by TfNSW for the local area surrounding the site are summarised in the table below.

TABLE 4 – PROJECTED POPULATION IN TRAVEL ZONES AROUND SITE, 2016 TO 2036 (COUNT)

Travel Zone	ERP 2016	ERP 2021	ERP 2026	ERP 2031	ERP 2036
200	0	0	0	0	0
201	3216	3477	3635	3709	3719
209	800	825	835	846	855
210	820	874	881	955	1068
211	910	941	944	956	973
212	2097	2238	2256	2271	2287
Total	7843	8355	8551	8737	8902

Note: ERP is estimated resident population

TABLE 5 – PROJECTED EMPLOYMENT IN TRAVEL ZONES AROUND SITE, 2016 TO 2036 (COUNT)

Travel Zone	Jobs 2016	Jobs 2021	Jobs 2026	Jobs 2031	Jobs 2036
200	198	209	219	232	244
201	3800	4028	4242	4526	4851
209	1121	1189	1241	1308	1385
210	509	593	1459	2115	2958
211	805	868	1105	1161	1228
212	2921	3058	3153	3291	3446
Total	9354	9945	11419	12633	14112

Over the next twenty years, these indicate modest population growth of approximately 14% in total, and strong employment growth of around 50% in total.

3.2 Transit

3.2.1 Light Rail

The new CBD & South East Light Rail is currently under construction and is due for completion in 2019. The line will operate between Circular Quay and Kingsford, via Central Station. Its alignment is to the east of the site and is shown in the figure below.

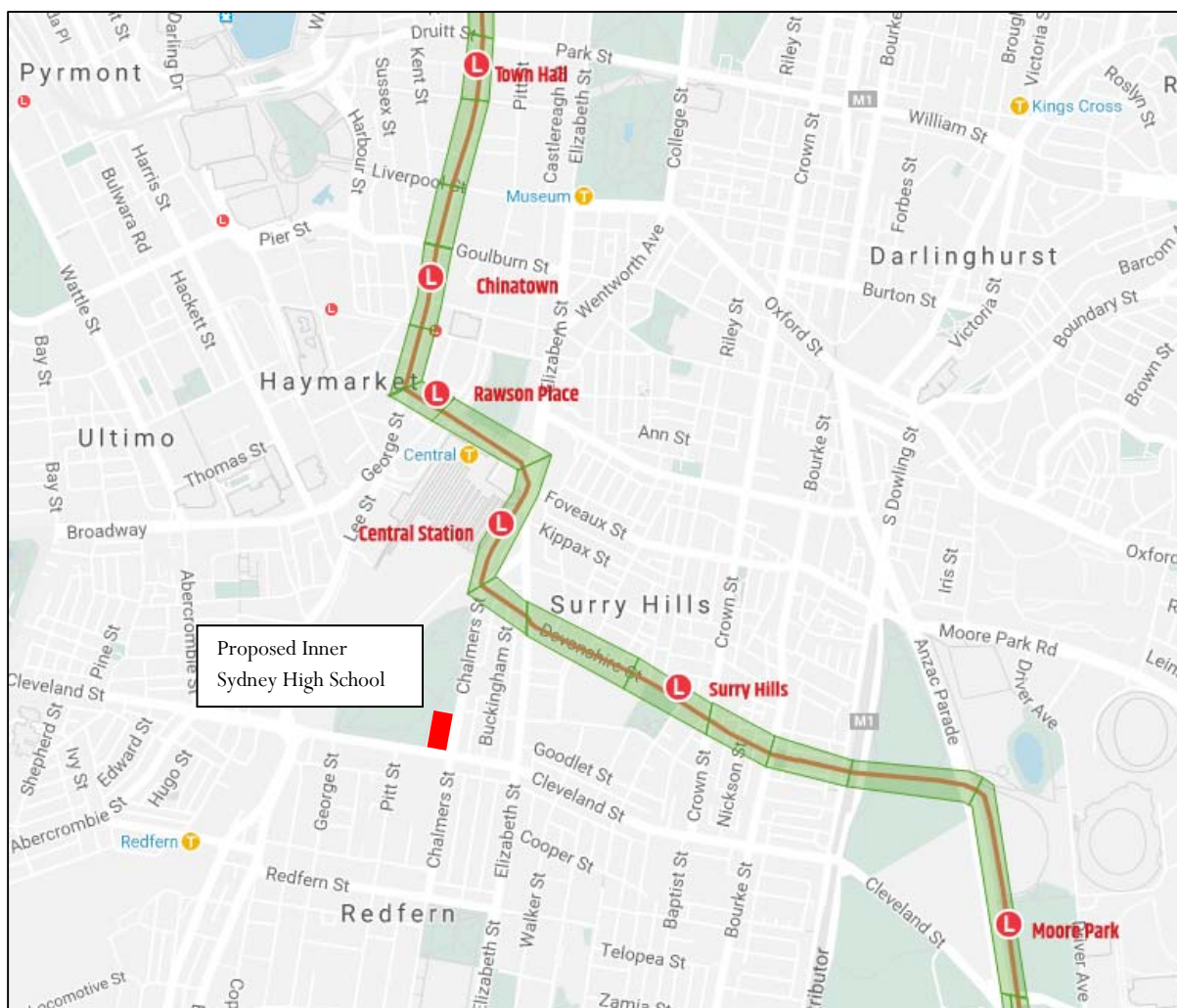


FIGURE 4 – TRAVEL ZONES AROUND SITE

The Central Station stop is located some 500m walk along Chalmers Street from the site, whilst the Surry Hills stop is approximately 600m walk along Belvoir Street from the site, this does entail a grade for part of the walk.

3.2.2 Ongoing rail development

In addition to ongoing improvements to rail services, such as additional rolling stock, upgrades to stations and additional capacity, such as duplications, third tracks and crossovers, very large rail projects are in the pipeline.

The Sydney Metro City & South West is a project currently under construction to provide substantial increases in passenger capacity and service levels, with the alignment running from Rouse Hill to Bankstown via the CBD. In the broader area around the subject site this Metro will provide an additional station at Waterloo, as well as serving Central Station. The project's indicative timeline has completion by 2025.

The Sydney Metro West project is in planning and would provide additional capacity between the CBD and Parramatta. This would reinforce the accessibility of the general area around the site.

These projects would all contribute to an improvement in transit accessibility for the City and for the area around Central Station, including the subject site.

3.2.3 Bus networks and services

Bus networks are amended and service levels adjusted as part of normal bus network operation. It is expected that the forthcoming opening of the CBD and South East Light Rail line will result in the adjustment of a number of bus services in the area around the subject site. Further as the general area's population increases, and if this leads to additional bus patronage, bus service levels would be expected to increase over time.

4.0 Proposed Development

4.1 Proposal description

The following project description is from the SSD report and provides a summary of the key elements of the project:

The NSW Department of Education (DoE) is preparing a State Significant Development Application (SSD 16_7610) for the development of a new 'Inner Sydney High School' (ISHS) located at the corner of Cleveland Street and Chalmers Street, Surry Hills (the 'site'), identified as 244 Cleveland Street, Surry Hills.

The new ISHS is proposed to accommodate up to 1,200 students to take enrolment pressure off surrounding high schools exceeding student capacity, and accommodate future population growth within the City of Sydney local government area. The high school will contain high quality learning, collaborative learning spaces and associated facilities.

Specifically, this proposal seeks development consent for the following works at the site:

- *Internal reconfiguration and refurbishment of the existing heritage listed buildings on the site to create:*
 - *Collaborative learning hubs with a combination of enclosed and open spaces;*
 - *Amenities and support areas; and*
 - *Workplaces and lounge spaces for teachers and administrative staff.*
- *Construction of a 13-storeys plus roof level and basement (approximately 56.5m from park level), multi-purpose school building, containing:*
 - *Collaborative learning hubs with a combination of enclosed and open spaces;*
 - *Library;*
 - *Staff workplaces;*
 - *Student canteen;*
 - *Indoor gymnasium and other indoor recreation and performance spaces;*
 - *Ancillary outdoor learning and recreational areas.*
- *Associated site landscaping and public domain improvements; and*
- *114 bicycle parking spaces*
- *Augmentation and construction of ancillary infrastructure and utilities as required.*

We understand that the ISHS would commence operation in a staged manner over several years, as student numbers increase.

The proposed school would have core operating hours, with additional activities occurring before school and after school. The extent and timing of these activities would be determined⁶ by the school on an ongoing basis. As an indication we have been provided with information by Department of Education in relation to before and after school activities at an inner Sydney high school:

- **Years 7 to 10**
 - approximately 10 per cent of students doing before school for sport and music
 - less after school – down to 2 per cent of students
- **Years 11 to 12**
 - early morning classes, sport and music each morning about 20 per cent of students;
 - in the afternoon classes, about 20 per cent of students, three afternoons per week till around 4.30pm

⁶ In Years 11 and 12 classes before and after school are required to provide a broad range of subject choices, and this would vary as student preferences for different subjects is likely to change over time.

It is worth noting that the NSW Government operates a School Student Transport Scheme which provides free travel to and from school on public transport, if the students meet certain criteria in terms of the distance from their home to school. Generally, if students live within a short walk distance of their school, they do not qualify for the scheme.

5.0 Green Travel Plan

5.1 General

The above sections have collated information about existing and likely future travel and transport conditions around the subject site.

This analysis has indicated:

- good levels of public transport accessibility, across bus, rail and light rail
- free public transport available to students who meet requirements relating to distance between school and home
- an increasing resident population within the area around the site
- good pedestrian facilities within a reasonably permeable network
- bicycle facilities within an expanding network
- restricted on-street car parking availability

The design includes:

- restricted off-site car parking
- on-site bicycle parking for students, staff and visitors

The key issues that emerge from this analysis are:

- Ensuring that site users are aware of travel choices available to them
- That there is a process to monitor travel behaviour and identify issues, as they arise, and resolve them.

5.2 Objectives

The key objectives of this green travel plan are:

- Reduce reliance on the car within the school community by encouraging walking, cycling and transit
- Raise awareness of travel alternatives to ensure that, as far as practical, students, staff and visitors make the most of the wealth of transport options available at this site
- Reduce overall vehicle trips for journeys to and from the site.

5.3 Targets

When considering setting targets for travel it is worth considering how students currently travel to high schools in inner Sydney. Mode choice surveys at other high schools in inner Sydney reported by Positive Traffic in *Proposed Inner Sydney High School, 244 Cleveland Street, Surry Hills – Transport and Accessibility Impact Assessment Report*, June 2017, are summarised below.

TABLE 6 – SYDNEY SECONDARY COLLEGE LEICHHARDT CAMPUS – MODE SHARE SURVEY SUMMARY

	Train	Self Drive	Car drop off	Motor cycle	Bus	Walk	Bicycle	Ferry	Light rail	Other
<i>To school</i>										
Students	5%	0%	9%	0%	42%	30%	3%	0%	10%	1%
Staff	0%	85%	0%	4%	4%	8%	0%	0%	0%	0%
<i>From school</i>										
Students	6%	0%	4%	0%	46%	30%	1%	0%	12%	1%
Staff	0%	85%	0%	4%	4%	8%	0%	0%	0%	0%

TABLE 7 – JJ CAHILL MEMORIAL HIGH SCHOOL, MASCOT – MODE SHARE SURVEY SUMMARY

	Train	Self Drive	Car drop off	Motor cycle	Bus	Walk	Bicycle	Ferry	Light rail	Other
<i>To school</i>										
Students	3%	0%	25%	0%	21%	50%	1%	0%	0%	0%
Staff	6%	0%	16%	0%	26%	52%	0%	0%	0%	0%
<i>From school</i>										
Students	3%	0%	17%	0%	24%	55%	1%	0%	0%	3%
Staff	6%	0%	13%	0%	25%	50%	0%	0%	0%	6%

TABLE 8 – SOUTH SYDNEY HIGH SCHOOL, MAROUBRA – MODE SHARE SURVEY SUMMARY

	Train	Self Drive	Car drop off	Motor cycle	Bus	Walk	Bicycle	Ferry	Light rail	Other
<i>To school</i>										
Students/ Staff	0%	10%	29%	2%	32%	24%	2%	0%	2%	0%
<i>From school</i>										
Students/ Staff	1%	9%	17%	2%	40%	28%	1%	0%	2%	0%

The surveys identify a number of features of travel to and from high schools in inner Sydney:

- Car pick-up of students (at the end of the school day) tends to be less important than car drop-off of students at the start of the school day
- Car is a substantially more important mode for the schools at Mascot and Maroubra than for Leichhardt
- For students, walking and public transport (in these cases, it is bus in particular) are the dominant mode of transport
- Cycling is not a popular method of travel to and from school, despite its high level of accessibility in an urban setting.

Given the following conditions prevail at the subject site, namely:

- a high degree of public transport accessibility,
- reasonable to good pedestrian and cycle conditions,
- dense local residential population,
- restrictions on car access,

it is expected that travel choices in terms of car use for students could be similar to, and perhaps lower than, those at the Sydney Secondary College, Leichhardt Campus. Therefore, a mode share target for students travelling to school by car of 5% and from school by car of 3% is considered appropriate to aim for in the first two years of school operation.

Beyond that timeframe (say, five years after opening), should there be background changes such as:

- ongoing improvements to transit accessibility in the area around the school
- extension of the network of cycle facilities around the school
- ongoing growth of the population close to the school

then, a review of these targets would be appropriate, with a view to targeting a reduction in car use.

5.2 Actions

5.2.1 Information about available travel choices

Given the very high level of public transport accessibility within the environs of the site, the availability of free student travel to and from school through the NSW Government's School Student Transport Scheme, the generally good pedestrian conditions and bicycle network, it is considered that the key action of the Green Travel Plan must be to ensure that all students and staff are aware of their travel choices.

Even with the improved availability of travel information, including real-time apps, and interactive multi-modal travel planners, there is still a need to make site users aware of the specific services and infrastructure available and their relative benefits to themselves and more generally to society and the environment. This would be through several mechanisms:

- Transport Access Guide to be prepared and made available on the school website and/or via a non-public facing intranet system available to students (such as Google Classroom or similar). The Transport Access Guide would provide specifics about rail, bus, light rail, pedestrian links and bicycle facilities available. It would also provide links to sources of information about travel choices, including various Apps and journey planners.
- A printed copy of the Transport Access Guide would be provided to all new and potential students on their orientation day.
- There may be space within the Personal Development, Health and Physical Education (PDHPE) syllabus to spend part of a lesson on availability of transport options, tying this into material relating to the importance of physical activity.⁷
- The Transport Access Guide would need to be updated on a regular basis as services and networks are amended. It could also be updated to reflect targets and results of surveys. These are opportunities to further promote the Transport Access Guide.

5.2.2 Make provision for bicycles

Provision of bicycle parking on-site and trip-end facilities forms part of the scheme design.

The level of provision of bicycle parking has been assessed by Positive Traffic⁸ and found to be adequate. The proposal would provide 114 bicycle spaces onsite accommodating a bicycle mode share of approximately 20% for staff and 7.5% for students.

5.2.3 Monitor transit coverage of school catchment

As noted previously, the footprint of the student catchment for the proposed school is currently unknown. In any case, over time, this footprint is likely to vary. As such, there is a need to monitor the student catchment to ensure that there is adequate transit coverage. Given the density of the transit network, this situation is considered unlikely, but should it emerge, there is scope to request school bus services to fill gaps.

5.2.4 Restrict car parking availability

Restricted on-site parking and limited parking in surrounding areas is likely to discourage older students and staff from driving their own vehicles to school.

⁷ How this material is presented to students and whether it forms part of a PDHPE lesson is something that the school executive and staff would need to consider in the context of departmental guidelines and their responsibilities more generally to cover the syllabus.

⁸ *Proposed Inner Sydney High School, 244 Cleveland Street, Surry Hills – Transport and Accessibility Impact Assessment Report*, June 2017

5.2.5 Monitor peak demand

The proposed high school would have capacity for approximately 1,200 students. The temporal pattern of student arrival and departure at the site would place additional load on transit services and footpath facilities in the vicinity of the subject site. As the school catchment is not currently known, analysis pedestrian impacts with certainty is not possible. However, the following points are relevant to the management of peak demand:

- The Department of Education has provided advice in relation to before and after school activities which would be expected to occur at the site, as at most other high schools in NSW (refer to Section 4.1). These activities have considerable scope to spread arrival and departure profiles of demand over longer periods of time, thereby reducing peak loadings.
- In addition, the proposal incorporates a forecourt immediately inside the entrance, which would increase pedestrian circulation and storage space (within the site) at peak times.
- The proposal has a number of learning spaces in a high rise, with lift being the predominant access/egress mode for those spaces. This would tend to ‘meter’ the unloading of the site, spreading peak demands.
- Peak demand should be monitored and if issues arise, consideration should be given to strategies to manage peak loads, improving the effective width of the relevant footways by rationalising clutter⁹ and potentially consider opening an access to Prince Alfred Park during the afternoon peak.

5.2.6 Monitoring of transit capacity

The school is unlikely to place an appreciable load on rail services or on station capacity: the school’s mode share to rail is likely to be modest (depending on school catchment); and students are likely to divide between two stations (Central Station and Redfern Station) to access rail, depending on the location of their home location. If they live to the north of the school (or along the Airport Line) they are more likely to use Central Station, and if they live south or west of the school they are more likely to use Redfern Station.

Impacts on the CBD and South East Light Rail are also likely to be limited as a result of the light rail line serving a relatively small part of the potential school catchment (i.e., resulting in modest light rail mode share). Also, in the afternoon, the walk to the Surry Hills stop on Devonshire Street at Ward Park is likely to result in a dispersed pattern of arrivals of students at the stop, minimising the risk of overloading of the stop and services.

It is considered that the main potential for transit overloading would be on bus and this is more likely to occur in the afternoon. It is likely that students will be heading in a number of different directions, and therefore would be accessing four bus stops (one on Chalmers Street, one on Elizabeth Street, and the two on Cleveland Street). This would diffuse the loading and the high service levels at the Chalmers Street and Elizabeth Street stops (a service approximately every two minutes), would reduce the potential for build-up of students at these stops.

In addition to contractual mechanisms in place between TfNSW and the bus region contract operators to ensure that adequate capacity is available on bus services, there is a need to ensure that the capacity of scheduled bus services will be adequate to deal with peak loadings, especially at the end of the school day. As noted previously, whilst there are factors which tend to dampen the end of day school peak, this is an area which should be monitored.

The proposed ramp-up of the school’s student numbers over a period of several years is likely to assist to identify – both for the school community and the bus contract operator – potential capacity issues and afford time to plan measures to reduce this impact, if they arise. These mitigation measures could include:

⁹ Effective footway widths around the subject site are reasonable, with limited clutter. On the Chalmers Street frontage heading to Cleveland Street there is a traffic signal controller (grey box) which reduces effective width to some 2.4m for a length of less than half a meter.

- Provision of additional capacity, including short running route variants, school specials or marginally increasing frequency on selected routes.
- Students who are catching a bus to Central Station to subsequently catch a train, could be encouraged to walk to the station along Chalmers Street, as opposed to taking a bus.

5.3 Plan mechanics

For the GTP to be effective there is a need to:

Implement the plan

In order to achieve the objectives of the GTP and its target mode share, there needs to be strong support from the school and the school community. We recommend that a senior member of staff be given carriage of the promotion, implementation and monitoring of the Plan.

Resources should be provided to develop and maintain a comprehensive Transport Access Guide.

As the proposal is a school environment, there is an opportunity for a group of students who are interested in sustainability, to participate in actions, such as updating elements of the Transport Access Guide, and being involved in organising promotional events, such as Walk to School day and Ride Your Bike to School Day.

Monitor priority areas and progress of the plan

This would involve on-going monitoring of transit capacity and transit coverage of the school's catchment.

Periodically (every two to three years) surveying the school population to estimate mode shares for the journey to school and the journey from school and comparing this against the mode share target.

Identify impediments to meeting the plan's mode share targets

On-going feedback from the school community in relation to concerns about relevant transport infrastructure and services and, where appropriate, relaying this to the appropriate agency¹⁰.

Update the plan for relevance and focus

As transit services change and new parts of the bicycle network open, there is a need to update the Transport Access Guide.

If targets are not being met, as identified by survey, then there would be a requirement to revisit the plan, undertake some additional attitudinal surveys of the school community and endeavour to identify and address impediments to achieving the mode share target.

¹⁰ This is generally done by schools on a business as usual basis.