

Proposed Mixed Use Development 524 – 542 Pacific Highway, St Leonards Green Travel Plan

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1.0 Introduction

This Green Travel Plan is submitted to the Department of Planning and Environment (DPE) in support of a concurrent State-led Rezoning and State Significant Development Application (SSDA) for a new mixed-use development, comprising build-to-rent housing, commercial and retail land uses at the Telstra Exchange Site at 524-542 Pacific Highway, St Leonards (the site).

The proposed development will specifically comprise the following:

- Site preparation and excavation.
- Retention and integration of the existing Telstra Exchange Building
- Construction of a new 42-storey mixed-use development, comprising:
 - 21,472m² of build-to-rent housing across 31 storeys, including 272 dwellings;
 - 3,840m² of non-residential space within an 8 storey podium used for the purposes of short stay accommodation, including;
 - 721 m² of Key Worker Housing across 1 level, within the podium, delivering a total 10 dwellings to be managed as part of the build to rent development
 - 84 short term accommodation units across 5 levels
 - 159m² of retail area on level 1
 - community amenity facilities throughout the building.
- Residential lobby accessed via Christie Street and separate commercial use lobby accessed via Pacific Highway;
- Podium car parking and loading area with vehicular access via Christie Street, comprising a 48 space car stacker;
- Associated landscaping and public domain works; and
- Augmentation of, and connection to, existing utilities services as required.

This report addresses the relevant Secretary's Environmental Assessment Requirements (SEARs) and Study Requirements, and it is noted that to facilitate the abovementioned development, amendments to the Lane Cove Local Environmental

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Plan 2013 are proposed via a concurrent State Led Rezoning to rezone the site from B3 Commercial Core to B4 Mixed Use and to increase the maximum building height of 72m to 155m. The FSR of the site will remain as per existing at 17.1:1.

The GTP has been prepared in satisfaction of the SEARS and Section 5 of Council's DCP 2009 Part C.

2.0 Proposed Development

It is proposed to demolish the existing buildings, retaining the existing Telstra infrastructure and excavate part of the site to provide for automated podium stacker parking. A new 42 level tower building will be constructed comprising:

Apartments

42 x studio

98 x one-bedroom

121 x two-bedroom

11 x three-bedroom

Total: 272 apartments

10 x Key Worker Housing units at L8

159m² of retail space on L1

84 Short Stay Accommodation Units within the 8 Level Commercial podium.

A total of 48 parking spaces will be provided in an automated podium car stacker along with loading bays accessed by a driveway on the Christie Street frontage.

Details of the proposed development scheme are provided on the plans prepared by DKO Architects, which accompany the Application and are reproduced in part in Appendix A.

3.0 Sustainable Transport

3.1 Public Transport Services

The site is highly accessible to public transport services including:

Bus Services

Access to the Metropolitan Transport Network is provided by the bus services, which operate along the Pacific Highway with bus stops within 50m walking distance of the site. These services provide connections to North Sydney, Gore Hill, Bella Vista, Castle Hill, Denistone East, Lane Cove, and the CBD and provide frequent high-capacity services during the weekday peak hour periods.

Details of the bus services available in the vicinity of the site are provided in Appendix A.

Railway Services

St Leonards Railway Station is located within a 2-minute or 150m walk west of the site. The station is served by three rail lines, namely T1 – North Shore and Western Line, T9 – Northern Line, and CCN – Central Coast and Newcastle Line.

These rail services connect to the Sydney Metro Northwest line from the existing Chatswood Interchange to Tallawong Metro Station with an interchange at Epping Station to other rail services.

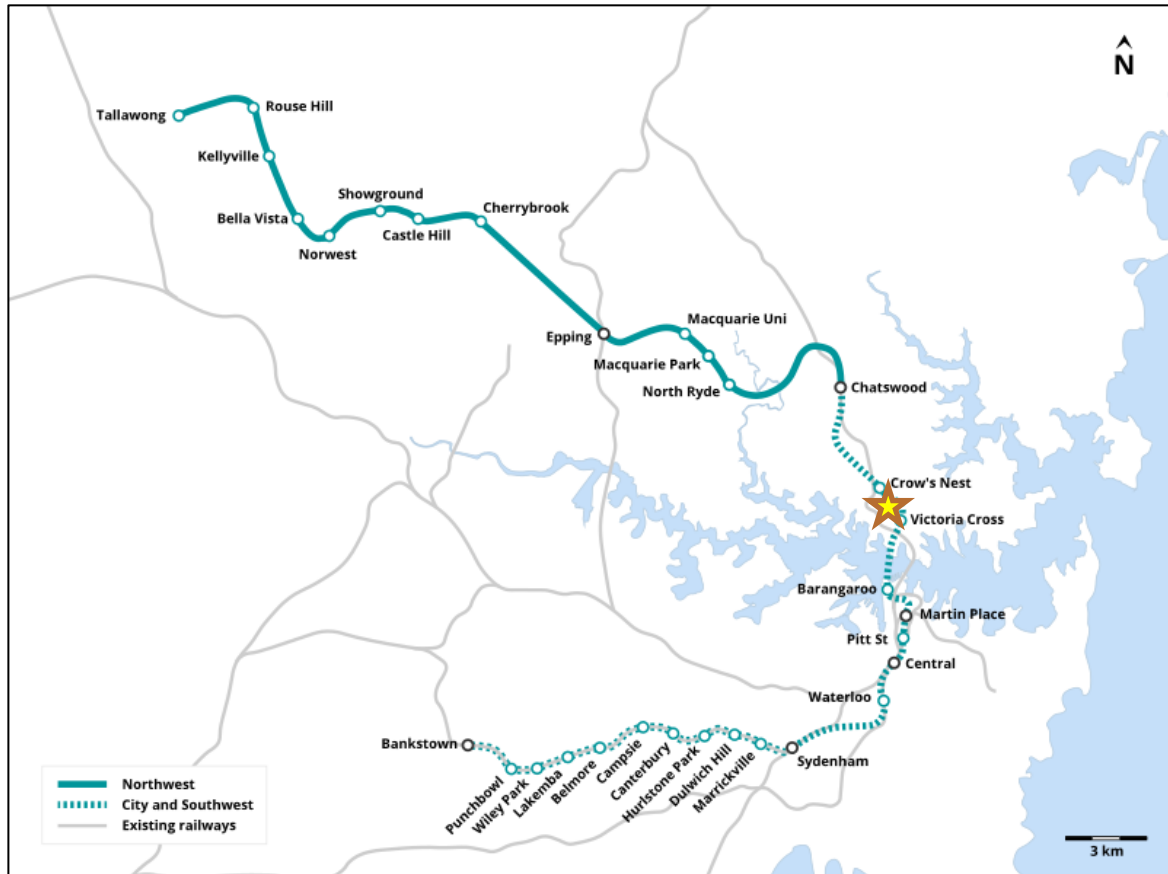
Details of the train services available at St Leonards Station are provided in Appendix A.

Future Crows Nest Sydney Metro Station

The site is located within 450m of the Crows Nest Metro Station, which is currently under construction as part of the Sydney Metro City and Southwest Line. After completion in 2024, this station will provide metro trains every four minutes during peak hours and connect the area to Sydney Central Business District, Northwest

Sydney, and Southwest Sydney. The opening of the near Metro Station will greatly benefit the site, given the increased incentives to travel on the regular fast train service.

The station locations and rail alignment of the Sydney Metro are shown below.



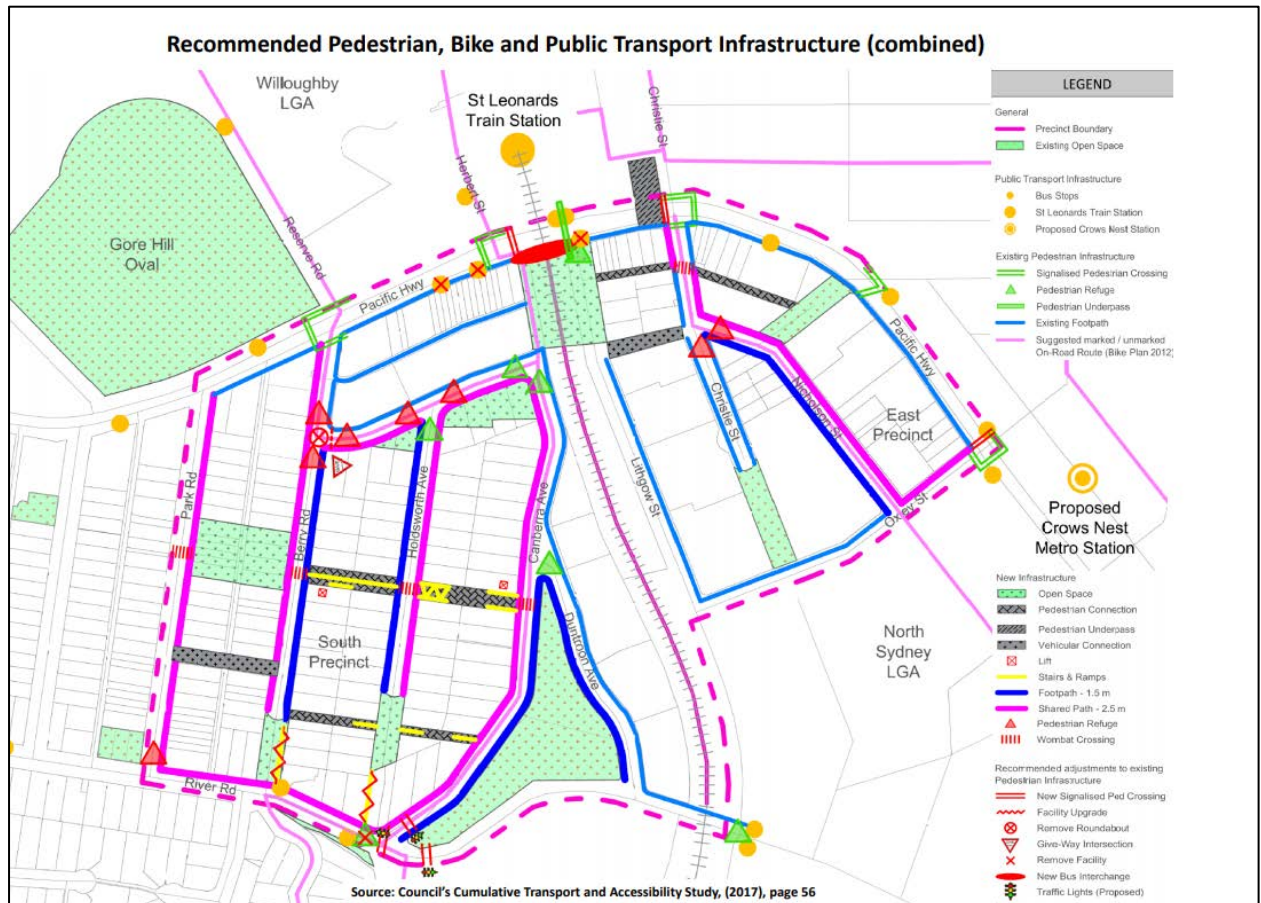
Source: Sydney Metro

3.2 Walking And Cycling Infrastructure

The site provides a high level of pedestrian connectivity to public transport services and the surrounding residential and commercial/retail facilities. There are paved pedestrian footpaths on both sides of the highway and on the local road network in the vicinity of the site.

The signalised pedestrian crossings at the Pacific Highway and Christie Street intersection provides for convenient and safe crossing between the site and the rail and bus services and the retail and entertainment facilities.

PTC consultants in conjunction with Lane Cove Council recommended a combined infrastructure plan for pedestrian, bicycle, and public transport (see figure below) and this is supported by the proposal contained in the St Leonards and Crows Nest 2036 Plan prepared by DPIE with the diagram reproduced overleaf.

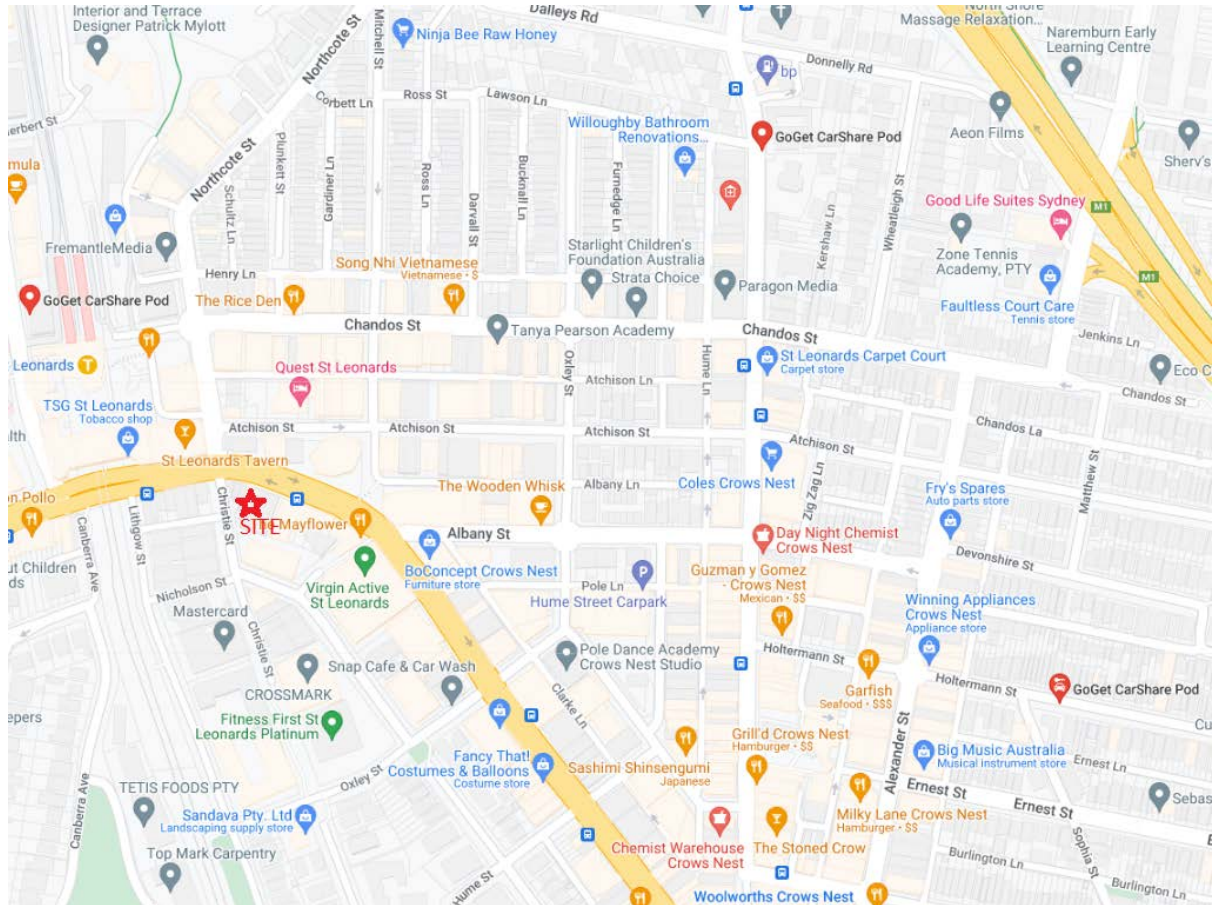


Source: PTC (St. Leonards Cumulative Transport and Accessibility Study, 2017)

The site is well situated within Sydney’s cycle network with cycle routes surrounding the site. Details of the initiatives to improve pedestrian and cycling infrastructure incorporated in the 2036 Plan are reproduced in Appendix B.

3.3 Local Car Share

There are 3 Go-Get car sharing pods located within reasonable walking distance from the site. The nearest pod is located 3-minute or 300m walking distance north west of the site along Herbert Street.



Source: GoGet

4.0 Green Travel Plan

4.1 Introduction

Transport is a necessary part of life which has effects that can be managed. There is a current major focus on improving transport services as well as cycling facilities and provisions for pedestrians in the vicinity of the site. 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 a strong and prosperous Site.

The existing and proposed infrastructure in the St Leonards forms a major part of the initiatives to encourage the reduction of vehicle transport use. However, a Green Travel Plan will ensure that the transport infrastructure and services are utilised to the fullest extent to achieve a sustainable outcome.

A Green Travel Plan is a package of measures aimed at promoting and encouraging sustainable travel and reducing reliance on the private car. It will make apparent, encourage and support residents/tenants, staff and visitors to travel in a more sustainable way. GTPs can provide both:

- ❖ measures which encourage reduced car use
- ❖ measures which encourage or support sustainable travel, reduce the need to travel or make travelling more efficient

“Active transport” includes travel by foot, bicycle and other non-motorised vehicles. The use of public transport is also included in the definition as it often involves some walking or cycling to pick-up to and from drop-off points.

4.2 Objectives

The aim of the GTP is to bring about better transport arrangements for the residents, staff and visitors. The key objectives of the GTP are to encourage:

- ❖ walking
- ❖ cycling
- ❖ the use of public transport
- ❖ reduced use of private vehicles
- ❖ where a private vehicle is to be used, encourage more efficient use. Such smarter travel use can include not travelling by single-occupancy cars in peak hours, not using cars for short-distance trips when alternative public transport is available, etc.

The introduction of this GTP will:

- ❖ advise the wider travel choices
- ❖ help identify transport means which will result in them being healthier, fitter and more productive
- ❖ provide equal opportunities by supporting those without access to a car
- ❖ aim to reduce congestion and provide easily identifiable transport means, improving relations with neighbours and enabling deliveries and essential journeys to move more freely

It is the objective of this GTP to encourage sustainable transport means which could result in the following benefits:

- ❖ higher mode share targets
- ❖ greenhouse gas emission reductions and carbon footprint minimisation
- ❖ healthy living (those living, working and visiting the site)
- ❖ social equity and reduction in social exclusion
- ❖ improve knowledge and contributes to learning

5.0 Modal Shift

5.1 Introduction

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

The travel plan will then put in place measures to further influence the travel patterns of those people residing, visiting, or working on the site with a view to encouraging a modal shift away from cars. The measures provided in this GTP and their success can inform the travel plans for subsequent developments within the precinct.

5.2 Implementation Plan

This section sets out the actions and associated timeframes to support the initiatives detailed in Section 6.1.

The below plan will be implemented and monitored by a Travel Plan Coordinator (TPC) who will be employed by the building management.

General & Communications Actions

Action	Timeline	Responsibility
Promotion including: <ul style="list-style-type: none"> • Display boards in prominent locations to show public transport maps • An events calendar – 3-4 events per year. Best in conjunction with state-wide events such as Ride to Work Day, World Environment Day, National Walk to Work Day, etc. 	Prior to occupation	TPC
A quarterly newsletter including; <ul style="list-style-type: none"> • News, events and articles on the environment, health, and fitness 	4 times a year	TPC

Action	Timeline	Responsibility
<ul style="list-style-type: none"> Remind staff that they don't always need to walk in the shoes they wear for work - these can be left at work and staff can come in trainers Outline new initiatives and how residents and staff can access them or get involved Information regarding up-and-coming events Information around the numerous health and financial benefits of participating in more sustainable transport options. Including better work life balance, reduced transport costs, reduced sick days due to ill health and improved culture and morale. 		

Walking

Action	Timeline	Responsibility
Produce a map for residents, staff and visitors showing safe walking routes to and from the site with times and distances, to surrounding local facilities (i.e., shops, bus stops)	Prior to occupation, quarterly on the newsletter	TPC
Have some Walk to Work days encouraging residents and staff to travel by alternative means.	Quarterly	TPC

Cycling

Action	Timeline	Responsibility
Provide 95 resident and 35 commercial/retail bicycle parking spaces in an easily accessible, undercover, well-lit, and secure.	Prior to Occupation	TPC
Ensure bike parking is clearly visible or provide signage to direct people to bike parking spaces.	Prior to Occupation	TPC
Supply a workplace toolkit - this can consist of puncture repair equipment, a bike pump, a spare lock, and lights.	Prior to Occupation	TPC

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Action	Timeline	Responsibility
Participate in annual events such as 'Ride to Work Day'.	Annually	TPC
Provide appropriate shower/change, toilet and personal locker facilities.	Prior to Occupation	TPC

Public Transport

Action	Timeline	Responsibility
Develop a map showing public transport routes.	Circulated to all new staff prior to occupation	TPC
Put up a noticeboard with information and maps showing the main public transport routes to and from the Site.	Prior to occupation	TPC

Incentive

Action	Timeline	Responsibility
<ul style="list-style-type: none"> Introduce charges for car parking and use money raised for public transport initiatives Provide sustainable transport allowances for staff who surrender car parking permits Offer cash incentives for staff willing to give up car parking spaces 	To be reviewed when the car parking is fully occupied	TPC

Events and Challenges

Action	Timeline	Responsibility
Implementation of events and challenges throughout the year such as Ride to Work Day, World Environment Day, National Walk to Work-Day, car free days, step challenges and points challenges, etc.	Throughout the year	TPC

5.3 Site Specific Measures

The Green Travel Plan incorporates the following measures to encourage more sustainable travel use among residents/tenants, visitors, staff and supplier/service personnel:

- ❖ Appoint a Travel Plan Coordinator (TPC) to ensure the successful implementation and monitoring of the GTP
- ❖ Create a site-specific GTP website and an introduction to the GTP, setting out its purpose and objectives
- ❖ Encourage the use of shared cars
- ❖ Implement a bicycle share membership plan such as Lime, Mobike and oBike
- ❖ Maintain the bicycle spaces for residents, tenants and visitors in good order
- ❖ Provide toolkits, including puncture repair equipment and bicycle pumps and a bicycle repair station
- ❖ Promote bicycle-friendly shops in St Leonards. A loyalty card program could be organised between staff who cycle and cafes/shops
- ❖ Provide good quality, accurate and useful directional signage to promote walking and cycling is essential and it is proposed that this is provided stating times to destination in minutes taken as well as distances in half kilometres
- ❖ Provide a newsletter or email service with links to public transport travel information and car share sites, Live NSW traffic and public transport conditions to ensure that travel information is always up to date
- ❖ Provide interactive timetables on-site to promote public transport usage
- ❖ Provide a Transport Access Guide (TAG) to every residential staff and regular visitors. The TAG should include public transport timetables, stop/ station locations, walking times/ distances, etc.

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- ❖ Implement a rideshare system, which could include encouraging residents and staff to participate in a peak-hour carpooling club to drive to a nearby station (with higher train frequencies) or common work location during the peak hours. This may be coordinated by a ‘transport champion,’ an appointed worker, building manager, or formally appointed TPC
- ❖ Provide an access pack to all new residents/tenants/staff, including the transport access guide, the free opal cards, free car share membership, and information on sustainable travel facilities and initiatives. The welcome pack will not only include the TAG and brochure, 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 the facilities/incentives provided
- ❖ All apartments will be provided with high-quality NBN telecommunication points, which will provide residents with the opportunity to “work from home” or “study from home,” thus reducing the need to travel
- ❖ A half-yearly newsletter could be provided for up to two years after occupation bringing the latest news on sustainable travel initiatives in the area

It is also important to note that the development layout will provide a detailed “wayfinding” information to assist residents/staff/visitors to be directed to suitable public transport facilities.

The provision of good quality, accurate and useful directional signing to promote walking and cycling is essential and it is proposed that this is provided stating times to destination in minutes taken as well as distances in half kilometres. In addition, the signage will promote links to local services. These measures would form the framework of the GTP and with this framework in place, the plan is to be managed as described in Section 6.

6.0 Management of the Plan

It is proposed that the GTP will be subject to ongoing monitoring to ensure that it is achieving the desired benefits or to modify it if required. It is not possible at this stage to state what additional modifications might be made, as this will be dependent upon the particular circumstances arising from time to time.

6.1 Monitoring

It will be important to monitor the GTP to ensure that travel mode targets are met and the maximum benefits are being gained.

A GTP Coordinator for the development will be nominated by the building management and the Coordinator will be responsible for developing, implementing and monitoring the GTP. The Coordinator will be established when occupation commences.

Travel surveys will be undertaken, and the main focus of the surveys will be to establish the travel patterns, including the mode share of trips to and from the site. The survey will be conducted online with the information helping inform GTPs of subsequent changes and upgrades.

It will 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.

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

There are several key elements 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 available and provide information about the alternatives to reliance on private car travel.
- **Commitment** – GTPs involve changing established habits and providing the impetus for people in new developments to choose a travel mode other than private 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 encouragement for changing travel modes upon occupation.
- **Consensus** – It will be necessary to obtain broad support for the introduction of the plan.

Once the plan has been adopted, it will be essential to maintain interest in the scheme and any new initiative in the plan will need to be publicised and marketed. Accordingly, it is proposed to produce a half-yearly leaflet for residents and staff to inform them of sustainable travel initiatives.

TP coordinator is to survey the bicycle parking area and record its utilisation quarterly. This information will advise the potential need for further bicycle parking spaces which is estimated to be available.

6.2 Monitoring Milestones

Monitoring of the plan will be an essential process in consolidating the travel patterns and publicising the positive outcomes of the plan.

It is therefore proposed that within 3 months of occupation of the new development and from a yearly basis thereafter, a travel survey will be conducted. The results of the travel survey will indicate the existing desired travel modes used by staff and residents. In this way, the coordinator will be able to examine the success of the TP and make appropriate recommendations in improving the TP outcome.

6.3 Evaluation of Targets

It is proposed that within 3 months of substantial occupation, a travel survey will be conducted. A travel questionnaire (example below) can be conducted of residents/tenants, staff and visitors.

The first study provides a baseline for travel planning, while subsequent travel surveys would be reported yearly to inform any weakness or strength in the current travel plan. Based on the review, the travel plan should be refined to reflect changing circumstances.

Sample Survey

1. What is the postcode of your place of residence/employment? _____
2. How do you travel to work?
 - a) Walk/run
 - b) Bicycle
 - c) Bus
 - d) Train
 - e) Combination of bus and train
 - f) Drive a car
 - g) Passenger in a car
 - h) Others _____
3. What time do you usually leave and arrive at work in the morning? _____
4. What time do you usually leave and arrive home in the afternoon? _____
5. Do you use your car for work trips during the day?
 - a) Yes
 - b) No
6. To facilitate walk/cycle groups and/or carpooling may we share your contact details with a colleague that live/work near you?
 - a) Yes – walking group (Email: _____)
 - b) Yes – cycling group (Email: _____)
 - c) Yes – carpool driver (Email: _____)
 - d) Yes – carpool passenger (Email: _____)

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Whilst these targets have been set and though limited parking supply is available, and a range of measures have been provided in the travel plan to persuade residents/tenants, staff and visitors to participate in sustainable travel, it is not possible to guarantee that these modal split targets will be achieved. These targets will provide a good indication of travel modes and potentially enable a conversion in motorcycle to bicycle spaces, improving the sustainability of the development.

6.4 Existing Travel Circumstance

Existing Transport Condition Report, St Leonards and Crows Nest Station Precinct Transport Study, prepared by Cardno, provides an indication of the existing residents/tenants/ staff travel patterns for the St Leonards locality.

A summary of the current mode shares is shown as follows:

Mode of Travel	From Area	To Area
Train	48%	32%
Bus	6%	7%
Walk	15%	5%
Car Driver/Car Passenger	29%	53%
Other (Bicycle, Motorcycle, Taxi, Car Share)	2%	3%
Total	100%	100%

6.5 Modal Share Targets

With the high-frequency bus and rail services, the Green Travel Plan will proactively pursue initiatives to accommodate public transport users.

This will contribute to significantly reducing the reliance of private cars as the primary form of transport.

Recognising the changing nature of the area as part of the site redevelopment and rail services, the desirable Mode Share target as indicated in St Leonards Cumulative Transport and Accessibility Study; Lane Cove Council; prepared by ptc, are summarised in the following:

Mode of Travel	From the Area	To the Area
Train	56%	52%
Bus	6%	7%
Walk	19%	13%
Car Driver/Car Passenger	15%	20%
Other (Bicycle, Motorcycle, Taxi, Car Share)	4%	8%
Total	100%	100%

Surveys undertaken within 3 months of occupation will be able to assess whether these targets have been met.

Whilst these targets have been set and though limited parking supply is available, and a range of measures have been provided in the travel plan to persuade residents, visitors and staff, to use sustainable travel, it is not possible to guarantee that these modal split targets will be achieved.

The measures proposed will be taken up by the purchaser as a matter of free choice and this modal choice is beyond the Building management. The survey results will, however, give an indication of the more popular measures which can then be concentrated upon.

Appendix A

Transport Services

Sydney rail network

M Metro **T** Trains



Sydney metro and train lines

M Metro North West Line
Chatswood
Tallawong

T1 North Shore & Western Line
North Shore
Western
Richmond

T2 Inner West & Leppington Line
Inner West
Leppington
City

T3 Bankstown Line
Liverpool
Lidcombe
City

T4 Eastern Suburbs & Illawarra Line
Eastern Suburbs
Illawarra
Cronulla

T5 Cumberland Line
Leppington
Richmond

T7 Olympic Park Line
Olympic Park
Lidcombe

T8 Airport & South Line
Airport
South
City

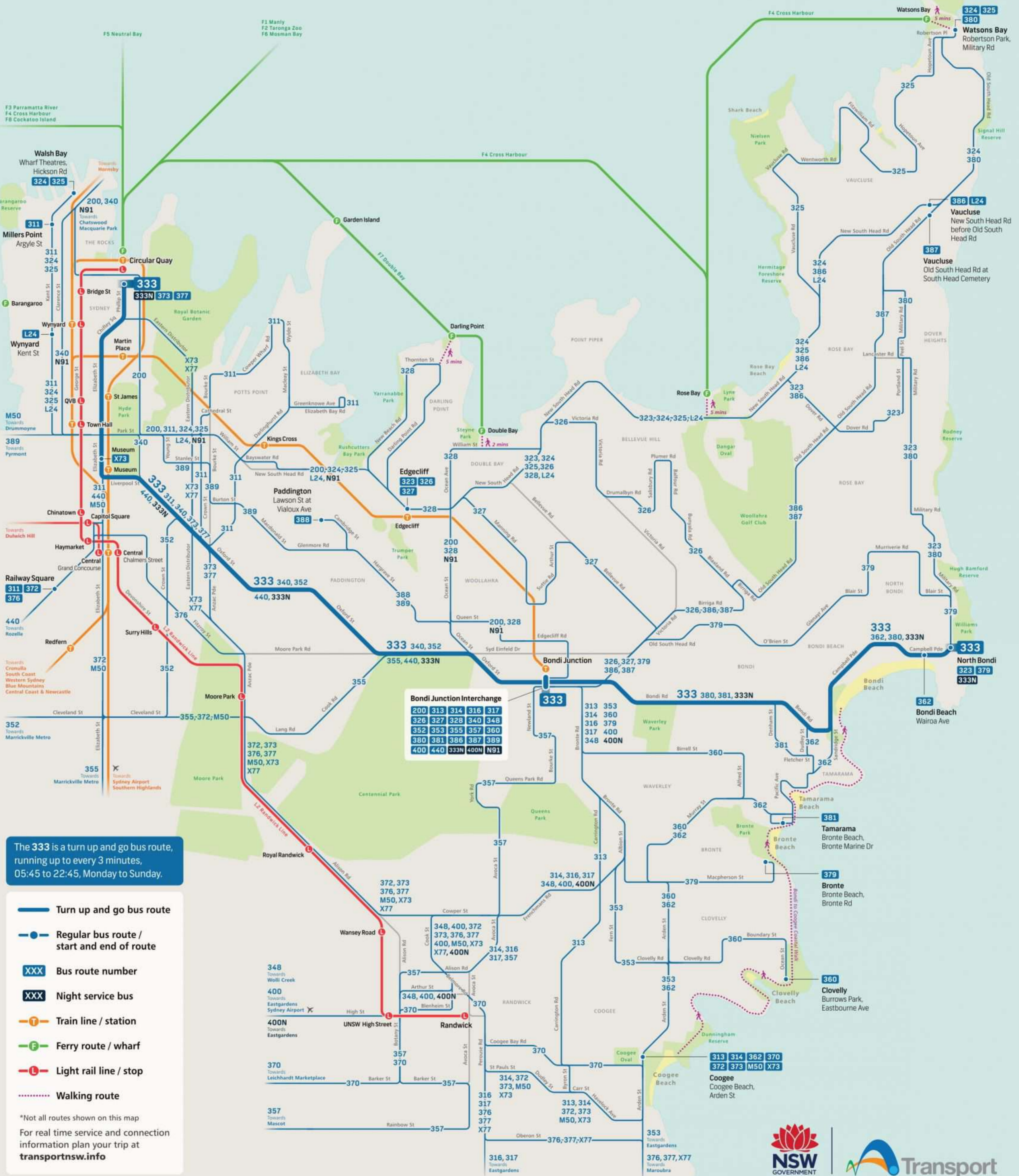
T9 Northern Line
Northern
Gordon



Check timetables and trip planners for train services and connections

Visit transportnsw.info

Buses around the Eastern Suburbs



The 333 is a turn up and go bus route, running up to every 3 minutes, 05:45 to 22:45, Monday to Sunday.

- Turn up and go bus route
- Regular bus route / start and end of route
- XXX Bus route number
- XXX Night service bus
- T— Train line / station
- F— Ferry route / wharf
- L— Light rail line / stop
- - - - - Walking route

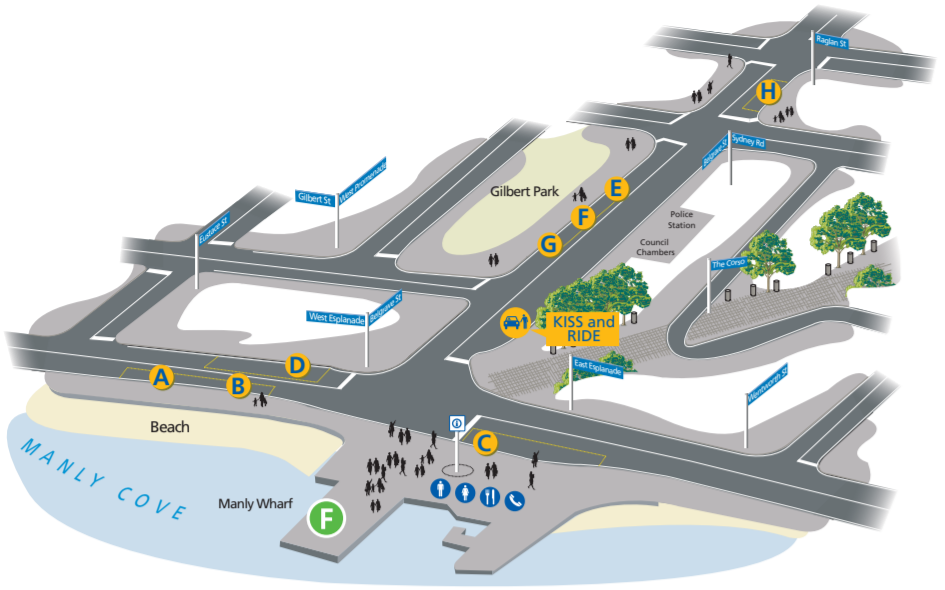
*Not all routes shown on this map
For real time service and connection information plan your trip at transportsw.info





Manly Wharf Service Information

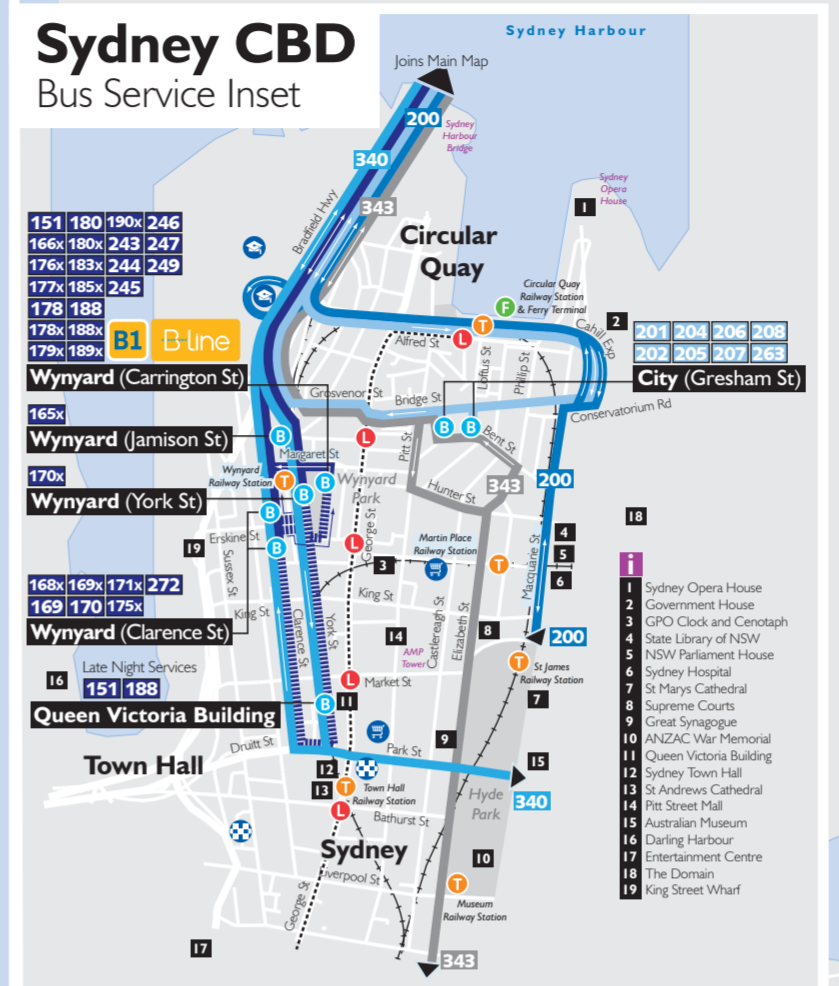
Departure Guide



Stand	A	B	C	D	E	F	G	H
	132 171x	143 144	136 139 135	135	170x	142 150x	146 158 159	151
			to North Head.				to Warringah Mall.	
							to Mona Vale.	



State Transit Northern Beaches & Lower North Shore



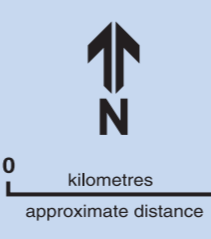
Passengers Please Note: Other bus services operate in this area and may not be shown on this map. Please refer to the Western Region Guide for a comprehensive listing of these other services.

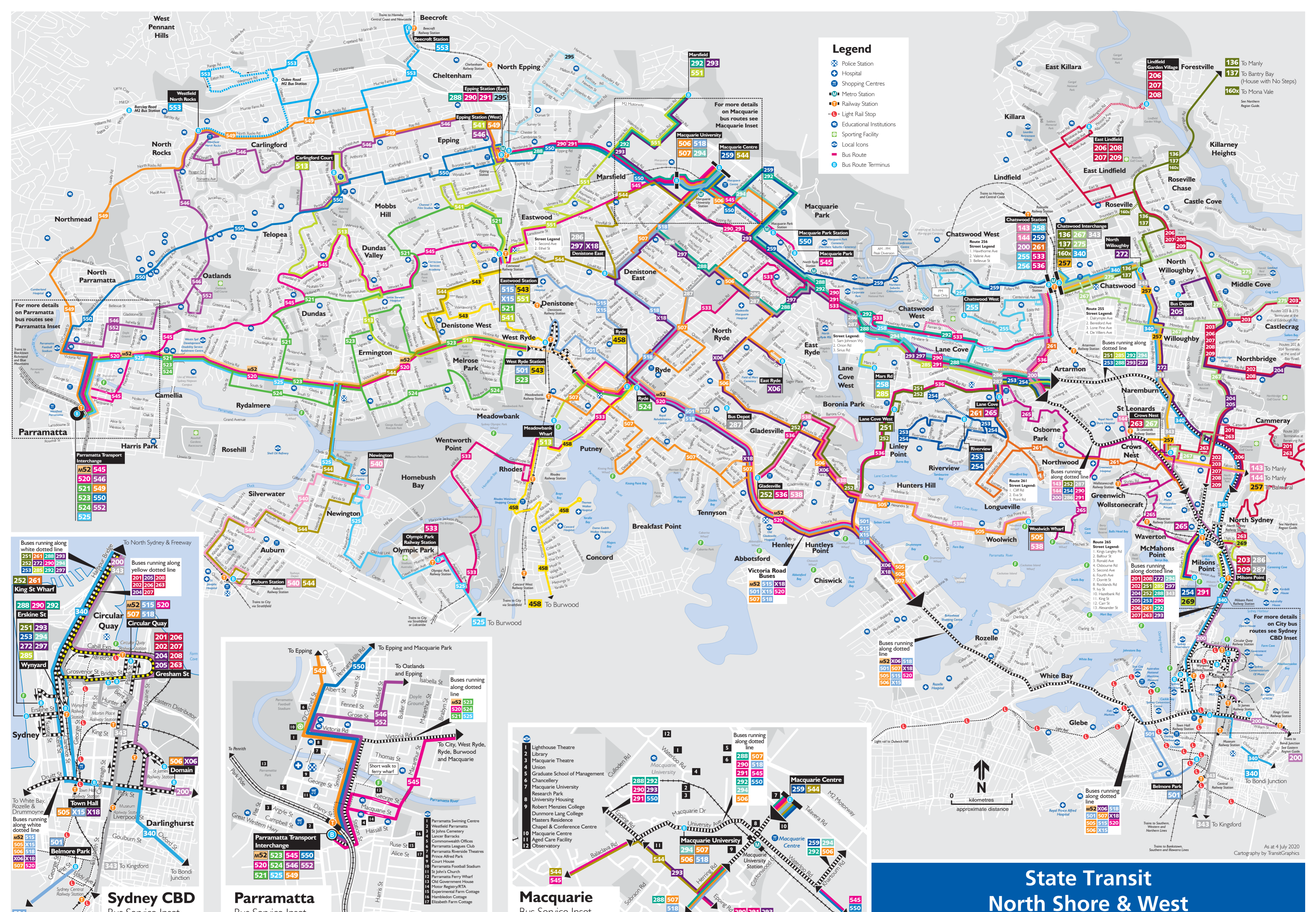
163x 170x 178x 188x 206 248	165x 171x 178x 188x 243 249	168x 175x 180x 244 272	169 176x 180x 201 245 340	169x 177x 183x 204 246	170 178 185x 205 247
169 151 203 208 228	138 154x 203 205 229	150x 188 207 227 230			

Direct Freeway Buses

163x 170x 178x 188x 206 248	165x 171x 178x 188x 243 249	168x 175x 180x 244 272	169 176x 180x 201 245 340	169x 177x 183x 204 246	170 178 185x 205 247
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- ### Legend
- Police Station
 - Park and Ride
 - Hospital
 - Shopping Centres
 - Metro Station
 - Railway Station
 - Light Rail Stop
 - Educational Institutions
 - Sporting Facility
 - Place of Interest
 - Bus Route
 - Bus Route Terminus





Legend

- ⬇ Police Station
- ⚪ Hospital
- ⬆ Shopping Centres
- Ⓜ Metro Station
- Ⓜ Railway Station
- Ⓜ Light Rail Stop
- Ⓜ Educational Institutions
- Ⓜ Sporting Facility
- Ⓜ Local Icons
- Bus Route
- Ⓜ Bus Route Terminus

For more details on Parramatta bus routes see Parramatta Inset

M52	545
520	546
521	549
523	550
524	552
525	

For more details on Sydney CBD bus routes see Sydney CBD Inset

251	261	288	293
252	272	290	294
253	285	292	297
288	290	292	
251	293		
253	294		
272	297		
285			
201	206		
202	207		
204	208		
205	263		
506	X06		
501	X15	X18	
505	515		
506	518		
X06	X18		
507	520		

For more details on Parramatta bus routes see Parramatta Inset

M52	523	545	550
520	524	546	552
521	525	549	

For more details on Macquarie bus routes see Macquarie Inset

288	292		
290	293		
291	550		
292	550		
294			
506			
259	544		
294	507		
506	518		
259	294		
292	506		
544			
545			

State Transit North Shore & West

Appendix B

Extract from the 2036 Plan



DRAFT Plan
APPENDIX - INFRASTRUCTURE MAP

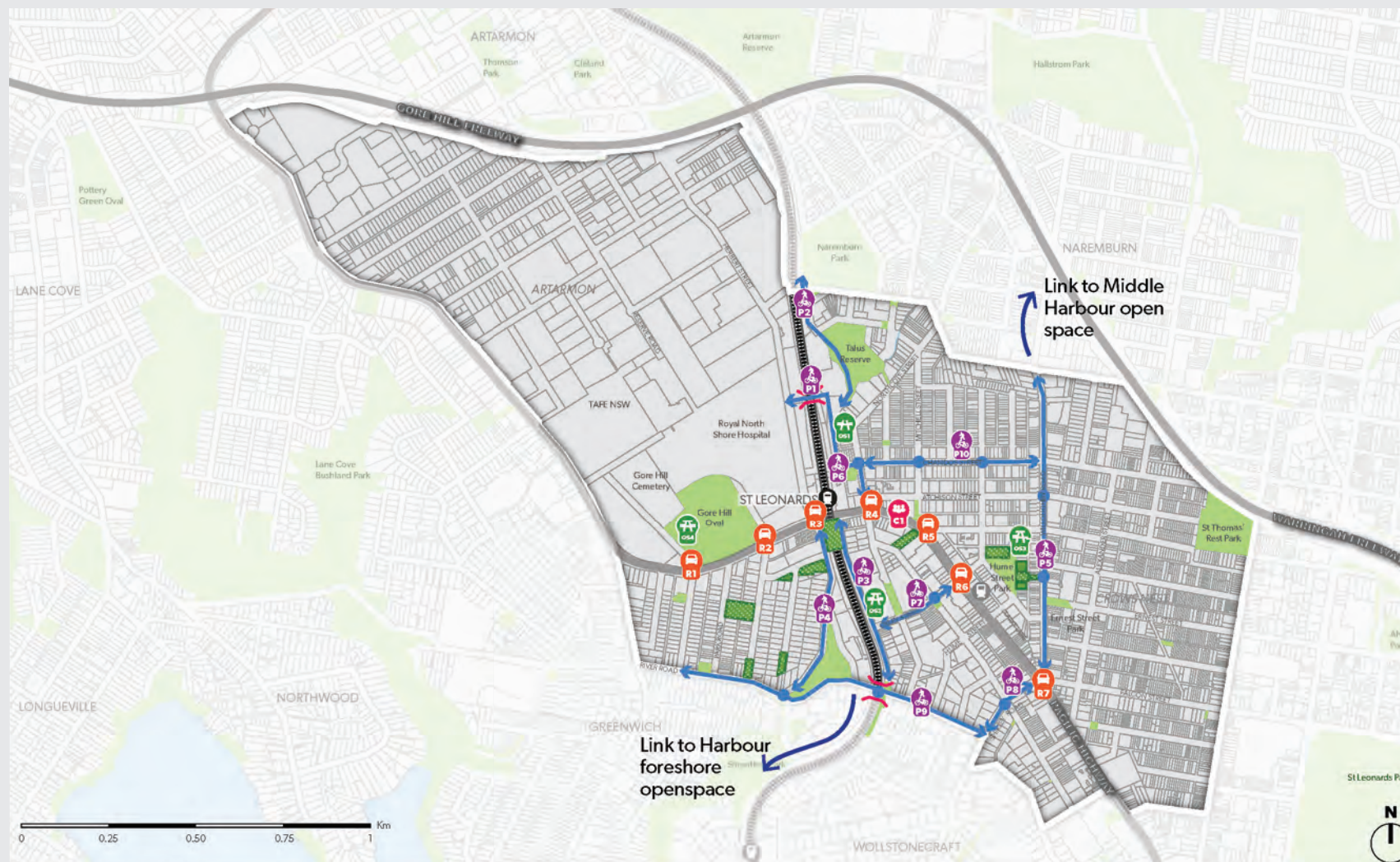


Figure 34: Infrastructure items

- | | | | |
|-----------------|-----------------------------|----------------------|-------------------------------------------------------|
| Plan Area | Existing Open Space | Community Facilities | Pedestrian & cycle connection improvements |
| Railway Line | Proposed Open Space | Open Space | Pedestrian crossing improvements |
| Railway Station | Council Proposed Open Space | Active Transport | Bridge crossing improvements for pedestrians/cyclists |
| Metro Station | | Roads | |



List No.	Location	Description	Funding Source	Status	Rationale
INFRASTRUCTURE TO BE FUNDED BY THE SPECIAL INFRASTRUCTURE CONTRIBUTION SCHEME					
ACTIVE TRANSPORT INFRASTRUCTURE					
Pedestrian and cycle link: Herbet Street and Chandos Street					
P1	Intersection on Herbert St near RNSH and Railway Bridge	New pedestrian crossing treatments	SIC	Subject to further investigation and detailed design	Provision of improved crossing treatments would improve pedestrian connectivity and safety across Herbert St near RNSH.
P1	Bridge from Herbert St over railway line opposite RNSH	Enhance existing bridge over railway to provide pedestrian and cycling connection to Chandos St	SIC	Subject to further investigation and detailed design	The existing bridge over the railway line could be augmented to provide a pedestrian and cycling connection to Chandos St adjacent to the railway line. All options are subject to detailed design and testing.
Cycle connection: Talus reserve to Naremburn Park					
P2	Talus reserve to Naremburn Park	Cycling connection linking Talus reserve to Naremburn Park	SIC	Subject to further investigation and detailed design	Enhance cycling link from Talus reserve to Naremburn Park to connect to the regional cycleway that follows the Gore Hill Freeway.
Pedestrian and cycle connection: Pacific Highway to River Road via southern linear park					
P3	Pacific Highway to River Road via southern linear park	Pedestrian and cycle connection	SIC	Subject to further investigation and detailed design	Provide pedestrian and cycle connection from Pacific Highway to River Road via southern linear park.
Pedestrian and cycle connection: Canberra Avenue					
P4	Canberra Avenue between Pacific Highway and Marshall Avenue	Pedestrian path widening	SIC	Subject to further investigation and detailed design	Canberra Ave is an important regional walking and cycling link between St Leonards Station, Newlands Park and Wollstonecraft Station. This link could be enhanced to cater for increased use.
P4	Canberra Avenue between the Pacific Highway and River Rd	Provide shared path on Canberra Avenue to link to River Road and provide pedestrian and cycle improvements	SIC	Subject to further investigation and detailed design	Canberra Ave is an important regional walking and cycling link between St Leonards Station, Newlands Park and Wollstonecraft Station. This link could be enhanced to cater for increased use.
P4	Intersection of Canberra Avenue and Duntroon Avenue	Enhance pedestrian crossing to link	SIC	Subject to further investigation and detailed design	Enhance pedestrian crossing to link with proposed footpaths on the eastern side of Canberra Avenue.
P4	Intersection of Canberra Avenue and River Road	New signalised intersection and crossing	SIC	Subject to further investigation, liaison with RMS, modelling and detailed design	A signalised crossing could be provided at the intersection of River Rd and Canberra Ave to improve crossing opportunities for pedestrians and cyclists. The north south link along Canberra Avenue is an important regional link between St Leonards, Greenwich and Wollstonecraft Station.



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List No.	Location	Description	Funding Source	Status	Rationale
Pedestrian and cycle improvements: Willoughby Road					
P5	Willoughby Rd from Atchison St to Lawson Lane	Shared pedestrian/ cycling path	SIC	Subject to further investigation, liaison with RMS, modelling and detailed design	A shared cycling and pedestrian path could be continued along Willoughby Rd to link to regional connections along Chandos or Atchison St.
P5	Intersection of Willoughby Rd and Atchison St	New pedestrian treatments to existing intersection	SIC	Subject to further investigation, liaison with RMS, modelling and detailed design	New pedestrian treatments to the northern and eastern legs of the intersection of Willoughby Rd and Atchison St will improve pedestrian connections and support increased activation on Atchison St.
P5	Along Willoughby Rd from Clarke St to Atchison St	Cycleway link	SIC	Subject to further investigation, liaison with RMS, modelling and detailed design	A cycleway link along Willoughby Rd would connect the Sydney Metro sites to the wider cycling network.
P5	Willoughby Rd, south of Holtermann St	New pedestrian crossing	SIC	Subject to further investigation, liaison with RMS, modelling and detailed design	A new crossing over Willoughby Rd would complement the through block link to Hume St Park.
Pedestrian and cycle improvements: Sergeants Lane/Christie Street					
P6	Sergeants Lane and Christie Street Intersection	Kerb outstand	SIC	Subject to further investigation, liaison with RMS, modelling and detailed design	There is currently insufficient space for pedestrians to wait at the lights to cross Christie St. A kerb outstand (extension) could be created to provide safe refuge for pedestrians. Existing footpaths are too narrow for pedestrians to pass one another and could be widened with this being achieved by narrowing the road to one exit lane onto Christie St.
Cycle improvements: Oxley Street					
P7	Intersection of Oxley St and Nicholson St	Intersection upgrades for pedestrians and cyclists	SIC	Subject to further investigation and detailed design	Cycling/pedestrian signals and crossings in this location could improve connectivity to wider regional cycling network.
P7	Oxley Street and Pacific Highway	Pedestrian crossing, north west leg	SIC	Subject to further investigation and detailed design	Improve pedestrian connectivity and reduce delay.
P7	Along Oxley St between Pacific Highway and Lithgow St	Pedestrian footpath improvements and cycle link	SIC	Subject to further investigation and detailed design	Widened footpaths could be provided along both sides of Oxley St between the Pacific Highway and Lithgow St to support increased pedestrian and cycling movements.
P7	Along Oxley St between Pacific Highway and Lithgow St	Cycleway link	SIC	Subject to further investigation and detailed design	Improve connectivity along Oxley St between Pacific Highway and Lithgow St.



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List No.	Location	Description	Funding Source	Status	Rationale
Cycle improvements: Shirley Road					
P8	Intersection of Nicholson St and Shirley Rd	Provide intersection treatment for pedestrians or cyclists crossing Shirley Rd (refuge/signals)	SIC	Subject to further investigation, liaison with RMS, modelling and detailed design	Cycling or pedestrian refuge/signals in this location improves connectivity to wider regional cycling network.
Cycle improvements: River Road					
P9	River Road between Greenwich Road and Shirley Road. Shirley Road between River Road and Nicholson Street. Sinclair Street between Shirley Road and Bruce Street	Shared path	SIC	Subject to further investigation, liaison with RMS, modelling and detailed design	Improved east-west connectivity along the southern boundary of the precinct.
P9	Railway overpass on River Rd between Lithgow St and Duntroon Avenue	Widen rail bridge to provide shared path. Potential pedestrian crossing enhancements over River Rd.	SIC	Subject to further investigation, liaison with RMS, modelling and detailed design	Widening the existing railway bridge on River Rd could provide an opportunity for a shared pedestrian and cycle path which would contribute to regional links that provide access from the Lithgow St linear park to Newlands Park and St Leonards South.
Pedestrian and cycle improvements: Chandos Street					
P10	Intersection of Chandos St and Christie St	Pedestrian crossing treatments	SIC	Subject to further investigation, liaison with RMS, modelling and detailed design	A signalised intersection could be provided in this location to improve pedestrian safety near the station and improve connectivity north to regional active transport links. This intersection could also cater for a future link to Herbert St. Both this intersection and a potential link from Herbert St are subject to detailed design.
P10	Cycle Path along Chandos St	Separate bi-directional cycleway along Chandos St	SIC	Subject to further investigation, liaison with RMS, modelling and detailed design	A separated bi-directional cycle path would provide enhanced connections to existing regional cycling infrastructure.
P10	Intersection of Chandos St and Mitchell St	Pedestrian crossing treatments	SIC	Subject to further investigation, liaison with RMS, modelling and detailed design	Pedestrian crossing treatments could be provided for each leg of the intersection to improve regional connections.
P10	Intersection of Chandos St and Oxley St	Pedestrian crossing treatments	SIC	Subject to further investigation, liaison with RMS, modelling and detailed design	Pedestrian crossing treatments could be provided for each leg of the intersection to improve regional connections.
P10	Intersection of Willoughby Rd and Chandos St	Pedestrian crossing (signalised), north leg	SIC	Subject to further investigation, liaison with RMS, modelling and detailed design	A northern crossing leg to the existing signalised intersection would improve pedestrian and cycling connections along Chandos Street.



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List No.	Location	Description	Funding Source	Status	Rationale
ROADS					
R1	Pacific Highway, near Portview Rd	Signalised pedestrian crossing	SIC	Subject to further investigation, liaison with RMS, modelling and detailed design	A new signalised crossing would improve connectivity between Gore Hill Oval/Park and St Leonards South and increase connectivity to the nearby bus stop.
R2	Intersection of Pacific Highway and Reserve Rd	Signalised pedestrian improvement	SIC	Subject to further investigation, liaison with RMS, modelling and detailed design	Pedestrian crossing leg on the eastern side of this intersection would improve north-south connectivity and reduce delays for pedestrians.
R3	Intersection of Pacific Highway and Herbert St	Signalised pedestrian improvement	SIC	Subject to further investigation, liaison with RMS, modelling and detailed design	Pedestrian crossing leg on the eastern side of this intersection (nearer St Leonards Station) would improve north-south connectivity and reduce delays for pedestrians and cyclists and support the regional green link through the precinct.
R4	Intersection of Pacific Highway and Christie St	Signalised pedestrian improvement	SIC	Subject to further investigation, liaison with RMS, modelling and detailed design	An additional crossing leg on the western side of this intersection would improve connectivity across the Highway and reduce delays for pedestrians. It supports the regional green link through the precinct by connecting to the St Leonards Plaza and Lithgow St Linear Park.
R5	Intersection of Pacific Highway and Albany St	Signalised pedestrian improvements	SIC	Subject to further investigation, liaison with RMS, modelling and detailed design	While there is an existing crossing on Albany St, it is quite long due to the angle of the intersection. A kerb extension (outstand) would shorten the crossing distance for pedestrians and encourage reduced vehicle speeds.
R6	Intersection of Pacific Highway and Oxley St	Signalised pedestrian improvement	SIC	Subject to further investigation, liaison with RMS, modelling and detailed design	The intersection of the Pacific Highway and Oxley St could be reconfigured to provide a right hand turn movement. This would support vehicular access and egress to new development.
R7	Intersection of Pacific Highway, Shirley Road, Willoughby Road and Falcon Street	Signalised pedestrian improvement	SIC	Subject to further investigation, liaison with RMS, modelling and detailed design	Alteration of five-ways intersection to support vehicular traffic movements.
OPEN SPACE PROVISION					
OS1	Between Chandos St and Talus St Reserve	Northern linear park: Herbert Street bridge to Chandos Street	SIC	Subject to further investigation and detailed design	Provide northern linear park from Herbet Sreet bridge to Chandos Street.
OS2	Lithgow St adjacent to the railway corridor	Southern Linear Park: Lithgow Street	SIC	Subject to further investigation and detailed design	Lithgow St and the land adjacent to the railway line presents a significant opportunity to provide a linear park to improve green regional connections through the precinct. Existing on-street parking could be removed and used to provide additional landscaped areas.
OS3	Acquisition of commercial properties on Hume Street to further expand Hume St Park.	Hume Street Park expansion	SIC	Subject to detailed design and liaison with North Sydney Council to integrate with existing concept	Additional land can be acquired to supplement North Sydney Council's plan to expand Hume St Park. This would increase the total area of the park.