GREEN TRAVEL PLAN FOR THE SALVATION ARMY (MIRANDA) AT 23 KIORA ROAD, MIRANDA

Prepared For:



Assessed and Approved by:







1 Introduction

M^CLaren Traffic Engineering (MTE) was commissioned by *Formus Property Pty Ltd* to provide a Green Travel Plan (GTP) for The Salvation Army (Miranda) at 23 Kiora Road, Miranda.

1.1 Development Characteristics

The proposed mixed-use development has the following characteristics relevant to traffic and parking:

- 116 residential units consisting of:
 - o 19 x 1-bedroom units:
 - o 71 x 2-bedroom units:
 - o 26 x 3-bedroom units.
- A total of 1,513.51m² of community services GFA for The Salvation Army (TSA) use consisting of:
 - o 673.85m² for administration, community support and outreach;
 - o 341.58m² for co-op purposes;
 - o 212.99m² for multi-purpose;
 - 285.09m² for ancillary usages such as storage.
- Three (3) basement car parking levels with vehicular access via a single two-way driveway from Willock Avenue, accommodating a total of 164 car spaces.

The site is shown on aerial imagery and a street map in **Figure 1** and **Figure 2**, respectively.





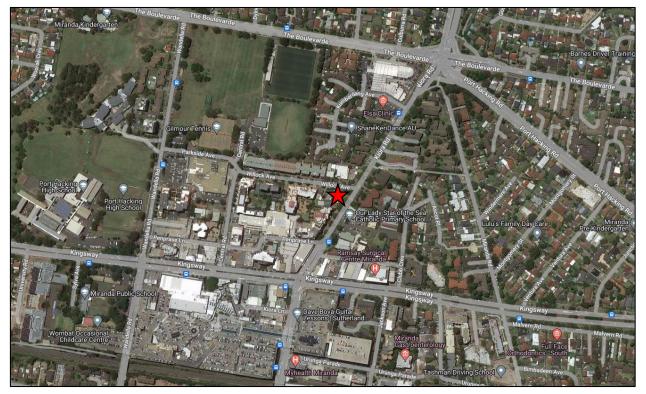




FIGURE 1: SITE CONTEXT - AERIAL IMAGE

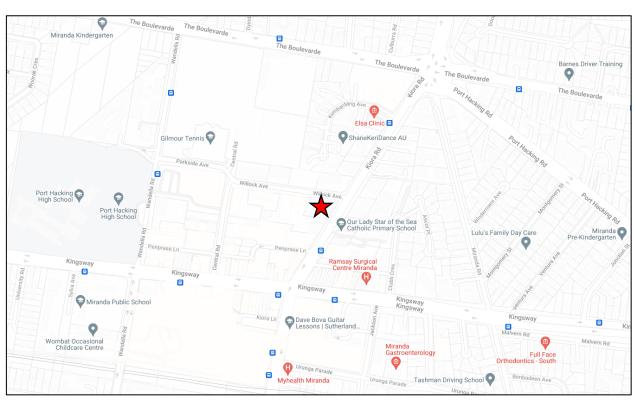




FIGURE 2: SITE CONTEXT - STREET MAP





1.2 References

A number of sources have been consulted to inform the preparation of this Green Travel Plan including:

- NSW Premier's Council for Active Living's Workplace Travel Plan Guidelines Final Report (April 2010);
- Australian Bureau of Statistics (ABS) Census Data;
- NSW Bureau of Transport Statistics Journey to Work Data;
- Active Transport Strategy
- Public Transport or Private Vehicle: Factors That Impact on Mode Choice, Grace Corpuz (Transport Data Centre, New South Wales Ministry of Transport).





2 Objectives

Alternative modes of transport including walking, cycling and public transport quantifiably promote positive transport and health outcomes. The NSW State Government *Long Term Transport Master Plan* emphasises the importance of alternative transport options in the growth of Greater Metropolitan Sydney. Further to this, the *Future Transport Strategy 2056* also emphasises the importance of encouraging active travel (walking and cycling) and the use of public transport.

Reference is made to the NSW Premier's Council for Active Living Workplace Travel Plan Guidance – Final Report (April 2010) provides examples of travel plans appropriate for different size and types of employers outlining that for:

20-250 employees

Mainly office-based employees

Likely to be beneficial to form alliances with other organizations in the locality also developing a WTP [Workplace Travel Plan].

Could focus on key cost saving opportunities such as business travel, and reducing fleet expenses.

Under the existing Salvation Army development, the maximum number of staff on-site is 17. Under the proposed development, with the inclusion of additional commercial and retail tenancies, there is potential for staff numbers to increase.

While the employees at The Salvation Army (Miranda) are not strictly office-based employees this description best matches the nature of how staff work and their associated travel patterns.

This Green Travel Plan has been developed to assist in identifying a range of low-cost initiatives and promotions which will directly benefit staff, residents and visitors to the site. This plan will help advise staff, residents and visitors to the site of sustainable and alternative transport options. The overall objective is to shift travel from private cars to active or public transport options, with the following positive implications:

- Reduced parking demand;
- Reduced traffic congestion and trip duration;
- Positive health outcomes from walking and cycling;
- Improved air quality and reduced per-capita emissions.





3 Existing Alternative Transport Facilities

3.1 Public Transport – Bus Services

The subject site has access to the following bus stops as shown in Figure 3.

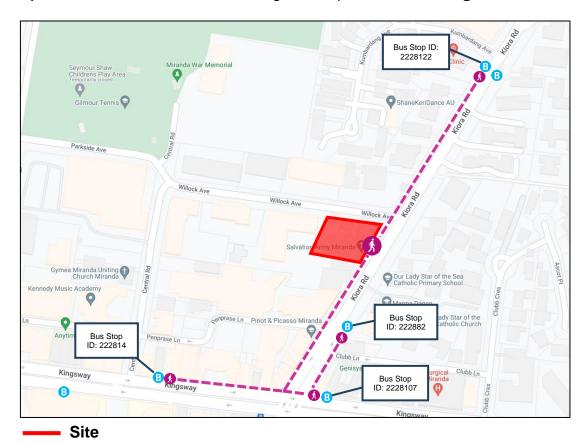


FIGURE 3: BUS STOP LOCATIONS

The bus stops service the existing bus routes, as summarised in **Table 1**.

TABLE 1: BUS ROUTE SUMMMARY

Bus Route ID	Bus Destinations	Bus Service Provider
961	Barden Ridge to Miranda	
962	East Hills to Miranda	
967	Como West to Miranda via Oyster Bay	
968	Bonnet Bay to Miranda via Kareela	
969	Cronulla to Sutherland	
970	Miranda to Hurstville	U-Go Mobility
971	Cronulla to Hurstville	0-GO MODILITY
972	Sylvania to Miranda via Sylvania Waters	
974	Miranda to Gymea Bay (Loop Service)	
975	Miranda to Grays Point (Loop Service)	
976	Sutherland to Grays Point (Loop Service)	
N11	Cronulla to City Town Hall (Night Service)	





Table 2 outlines the frequency of the local bus services outlined above.

TABLE 2: BUS ROUTE FREQUENCY

Doute	Doctination		Frequency	
Route	Destination	8 – 9 AM	Off-Peak ⁽¹⁾	4 – 5 PM
961	Barden Ridge to Miranda	1-hour	30 mins	-
901	Miranda to Barden Ridge	30 mins	30 mins	-
962	East Hills to Miranda	15 mins	30 mins	30 mins
902	Miranda to East Hills	20 mins	30 mins	20 mins
967	Como West to Miranda via Oyster Bay	1-hour	1-hour	1-hour
907	Miranda to Como West via Oyster Bay	1-hour	1-hour	30 mins
968	Bonnet Bay to Miranda via Kareela	1-hour	1-hour	30 mins
900	Miranda to Bonnet Bay via Kareela	1-hour	1-hour	30 mins
969	Cronulla to Sutherland		1-hour	1-hour
909	Sutherland to Cronulla		1-hour	1-hour
970	Miranda to Hurstville		30 mins	20 mins
970	Hurstville to Miranda	30 mins	30 mins	20 mins
971	Cronulla to Hurstville	1 hour	1 hour	20 mins
97 1	Hurstville to Cronulla	30 mins	30 mins	30 mins
972	Sylvania to Miranda via Sylvania Waters	1-hour	-	-
972	Miranda to Sylvania via Sylvania Waters	1-hour	1-hour	1-hour
974	Miranda to Gymea Bay (Loop Service)	1-hour	1-hour	30 mins
975	Miranda to Grays Point (Loop Service)	-	1-hour	1-hour
976	Sutherland to Grays Point (Loop Service)	-	-	-
N14.4	Cronulla to City Town Hall (Night Service)	-	-	-
N11	City Town Hall to Cronulla (Night Service)	-	-	-

NOTE:

As shown above, the subject site is within close proximity to several bus routes.

⁽¹⁾ Off-peak period – 12:00_{PM} to 1:00_{PM}.





3.2 Public Transport – Train Services

Miranda Train Station is approximately six (6) minutes walking distance (450m) to the south of the subject site. Miranda Train Station services the T4 – Eastern Suburbs & Illawarra Line providing a connection between Helensburgh Train Station to Bondi Junction Train Station.

Table 3 outlines the frequency of the T4 – Eastern Suburbs & Illawarra Line.

TABLE 3: TRAIN SERVICE FREQUENCY

Destination	Frequency			
Destination	Off-Peak ⁽¹⁾	8 – 9 AM	4 – 5 PM	
T4 – Eastern Suburbs & Illawarra Line	15 mins	10 mins	15 mins	

NOTE:

3.3 Active Transport - Cycling

The subject site has access to cycle paths as presented within the *Sutherland Shire Council Cycle Network Map* as shown in **Figure 4**.

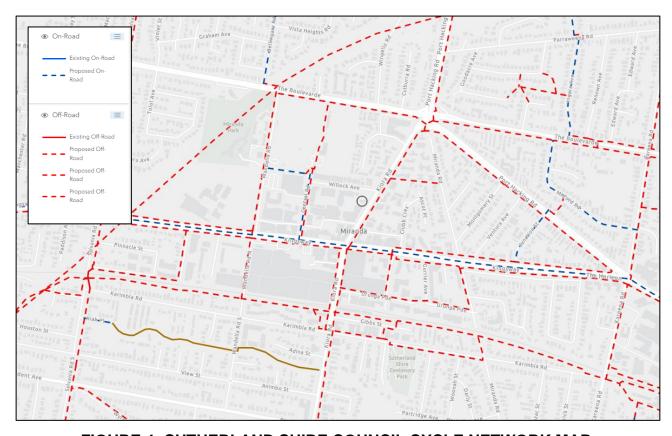


FIGURE 4: SUTHERLAND SHIRE COUNCIL CYCLE NETWORK MAP

As shown, the subject site is not relatively well connected by existing cycle routes however there are a number of proposed cycle routes. A majority of the proposed cycle routes will be constructed as a part of Sutherland Shire Council's "Sutherland to Cronulla Active Transport Link". An indicative map of the extent of works is shown in **Figure 5**.

⁽¹⁾ Off-peak period – $12:00_{PM}$ to $1:00_{PM}$.







FIGURE 5: SUTHERLAND TO CRONULLA ACTIVE TRANSPORT LINK MAP

The construction of dedicated cycle routes will provide connections to key destinations and provide alternate transport modes for individuals travelling to and from the site.

3.4 Active Transport - Walking

Pedestrian walking facilities are abundantly provided within close proximity to the site. Specific details of the walking facilities are provided below:

Kiora Road:

- Pedestrian walkways are provided along both sides of the road;
- Signalised pedestrian crossing facility located at the intersection of Kiora Road
 / The Boulevarde / Port Hacking Road;
- Signalised pedestrian crossing facility located at the intersection of Kiora Road
 / The Kingsway.

The Willock Avenue:

Pedestrian walkways are provided along both sides of the road.

• The Kingsway:

- Pedestrian walkways are provided along both sides of the road;
- Signalised pedestrian crossing facility located at the intersection of Kiora Road
 / The Kingsway.

There are numerous existing pedestrian walking facilities that have been provided by council within close proximity of the site. Individuals who live close to the site may utilise these facilities to reduce the number of vehicles driven.





4 Alternative Transport Strategy

4.1 Timeframe

This Green Travel Plan will apply from the issue of the Occupation Certificate for any works performed under this development application.

4.2 Existing Transport Use of Staff

A survey of the staff was undertaken, and it was found that 88.3% of staff drive to work, 10.4% of staff walk to work and 1.3% of staff cycle to work.

Based on the above, alternative modes of transport for staff are not desirable or have not been advertised to staff. It is possible that some staff members would change their mode of travel if easy and accessible public transport was available or advertised to staff or car sharing schemes were available.

4.3 Staff Cycling and Walking Suitability

To determine the walking & cycling suitability of site the following assumptions have been made to produce this assessment:

- A reasonable cycle time of ten (10) minutes for staff (2.5km cycling distance);
- A reasonable walking time of ten (10) minutes for staff (800m walking distance).



FIGURE 6: 10-MINUTE CYCLING CATCHMENT





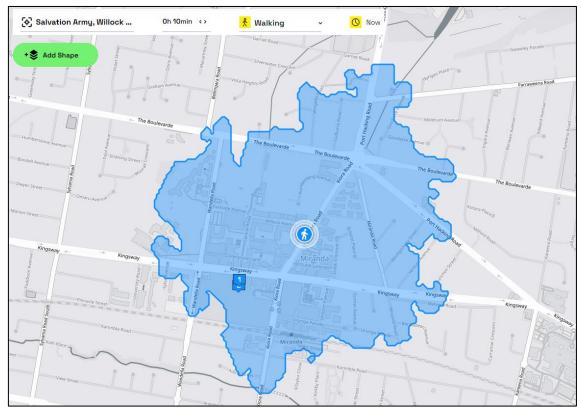


FIGURE 7: 10-MINUTE WALKING CATCHMENT

Staff members that live within or close to the walking and cycling catchment areas above should be encouraged to consider active transport options. Initiatives and strategies to promote active transport are outlined in **Section 5**.





5 Projects and Programs

The following actions form the basis for the implementation of the Green Travel Plan.

Collectively, these actions have been designed to help achieve the targets and milestones set out in **Section 4**. It should be noted that these actions are potential options that should be investigated and implemented as appropriate.

5.1 Initiatives to Specifically Reduce Private Car Use

The following initiatives are suggested to lower private car usage by providing for facilities or programs with the aim to allow for greater flexibility in the choice of travel mode to and from work. The strategies that can be implemented with this goal in mind are not limited to the following actions as shown in **Table 4**, but these are the basis for further reduction in private car reliance.

TABLE 4: INITIATIVES TO REDUCE PRIVATE CAR USAGE

Action	Cost	Target Group	Date
Provide large lockers or storage areas for the storing of bulky items	Moderate	Staff	Ongoing
Limit the number of car spaces when more sustainable transport options are available in the future	Minimal	Staff	Ongoing
Charge a fee for car parking which is pledged toward sustainable transport initiatives	Moderate	Staff	Ongoing
Provide pre-loaded opal cards to staff dedicated to public transport use	Moderate	Staff	Ongoing

5.2 Public Transport Initiatives

The following actions are focused on encouraging staff to partake in public transport when travelling to and from the site. The strategies to be implemented are not limited to the following actions as shown in **Table 5**, but these are the basis for further development of public transport options.

TABLE 5: PUBLIC TRANSPORT INITIATIVES

Action	Cost	Target Group	Date
Develop a map showing public transport routes to the site	Minimal	Staff	Ongoing
Put up a notice board with leaflets and maps showing the main public transport routes to and from the site	Minimal	Staff	From date of implementation
Prepare a Transport Access Guide (TAG) for the site	Minimal	Staff	From date of implementation
Offer Staff subsidies to offset public transport costs	Minimal	Staff	Ongoing





5.3 Walking and Cycling Initiatives

5.3.1 Walking

The following actions are focused on encouraging staff to partake in walking when travelling to and from the site. The strategies to be implemented are not limited to the following actions as shown in **Table 6**, but these are the basis for further development of active transport options.

TABLE 6: WALKING INITIATIVES

Action	Cost	Target Group	Date
Identify staff living near work that may be interested in walking to work	Nil	Staff	Ongoing
Produce a map showing safe walking routes to and from the site with times, not distances, to local facilities, such as shops and public transport	Minimal	Staff	From date of implementation
Implement incentive schemes to encourage employees to walk to work	Minimal	Staff	From date of implementation
Provide subsidised panniers or backpacks for staff committed to active travel	Minimal	Staff	Ongoing
Take part in 'National Walk to Work Day'	Nil	Staff	Annually
Have some 'TravelSmart Get to Work' days encouraging staff to commute by alternative transport modes	Nil	Staff	Annually
Encourage staff to walk as a method of exercise	Nil	Staff	Ongoing
Promote active travel as a means to support staff health and wellbeing	Nil	Staff	Ongoing





5.3.2 Cycling

The following actions are focused on encouraging staff to partake in cycling when travelling to and from the site. The strategies to be implemented are not limited to the actions as shown in **Table 7**, but these are the basis for further development of active transport options.

TABLE 7: CYCLING INITIATIVES

Action	Cost	Target Group	Date			
Organise an after-work ride. It does not have to be long or strenuous and could end up somewhere for dinner. This idea is to encourage people who might be reluctant to cycle to give it a go	Nil	Staff	Quarterly			
Provide sufficient bicycle parking to meet peak needs	As per construction	Staff	From date of implementation			
Have good, secure parking in an easily accessible location	As per construction	Staff	From date of implementation			
Provide bicycle parking for visitors	As per construction	Site Wide	From date of implementation			
Ensure bicycle parking is clearly visible or provide signage to direct people to cycle bays	As per construction	Site Wide	From date of implementation			
Provide showers, changing rooms and lockers	As per construction	Staff	From date of implementation			
Provide e-bike charging stations	As per construction	Site Wide	From date of implementation			
Circulate maps of cycle paths in the vicinity	Nil	Site Wide	Ongoing			
Participate in annual events such as 'Ride to Work Day'	Nil	Staff	Annually			
Arrange information sessions outlining cycling safety and health benefits	Minimal	Staff	Annually			
Hold weekly free breakfasts for staff walk or cycle to and from work	Minimal	Staff	From date of implementation			
Provide salary sacrifice options for purchase of bikes or other micro-mobility options	Minimal	Staff	Ongoing			
Allocate time in staff meetings to share tips and support for staff wanting to start cycling	Nil	Staff	Ongoing			





5.4 Sustainable Transport Initiatives

5.4.1 Carpooling

The following actions are focused on encouraging staff to partake in carpooling and limiting the number of cars used to travel when travelling to and from the site. The strategies to be implemented are not limited to the following actions as shown in **Table 8**, but these are the basis for further development of alternative transport.

TABLE 8: CARPOOLING INITIATIVES

Action	Cost	Target Group	Date
Set up carpooling databases for staff	Nil	Staff	From date of implementation
Promote carpooling at quarterly staff meetings to encourage carpooling amongst staff members with similar travel routes	Nil	Staff	Quarterly
Encourage use of carpooling apps and/or subsidise costs of carpooling trips	Nil	Staff	From date of implementation
Subsidise the cost of fuel for carpooling staff	Minimal	Staff	From date of implementation

5.5 Use of Incentives

Many of the alternative transport initiatives described above require the willing participation of employees and would not otherwise be effective. The incentivisation of alternative transport options could increase the number of employees using alternative transport options.

The direct advertisement for alternative transport use is suggested as part of increasing alternative transport utilisation. Some incentivisation strategies are outlined below.

- Provide a yearly seminar of the benefits of utilising public transport including reduced greenhouse gas emissions and health benefits;
- Create and distribute a Travel Access Guide which details accessible cycle paths, walking routes and information regarding public transport routes. The Travel Access Guide should be updated when alternate transport modes become available.

In addition, a review of the NSW Household Travel Survey by Grace Corpuz identified several factors that affected the use of alternative travel options, identifying the following factors as most influential on alternative transport use (in order of importance):

- Parking capacity and arrangements (destination factor);
- Where a vehicle is not available or accessible (origin factor);
- Where it is cheaper (origin & destination factor);
- Travel time (origin & destination factor);
- Convenience (origin & destination factor);





• Accessibility (origin & destination factor).

Future development of this Green Travel Plan should take into consideration the factors listed above.





6 Implementation Strategy

6.1 Management and Authority

The distribution of and implementation of the measures detailed in this Green Travel Plan is the responsibility of the management bodies of the site. It is the responsibility of the site's management to include alternative transport methods and initiatives in their respective information distribution method, whether it be via email, social media or on a message board.

Accordingly, authority is provided to the site's management to implement measures, review the plan and undertake further relevant and appropriate actions.

6.2 Distribution

The site's management will be responsible to inform staff about any initiatives that they choose to implement via the website, newsletter and any message boards accessible to staff.

6.3 Proposed Incentives

The proposed incentives to be adopted by the site and relevant timeframes for completion is presented in **Table 9**.





TABLE 9: PROPOSED INCENTIVES

Inputs		Activities		Outputs	Impacts	Outcomes
What resources are required?	What	Who	When	What needs to be created?	Performance indicators	What will be achieved?
 Large lockers or Storage Areas 	Provision of large storage areas for staff to store bulky items needed throughout the week that usually requires transportation from by a private vehicle	• Site Manager	Currently operational	 Locker or Storage installation 	Decrease reliance on private vehicles	Allow staff to store large items on-site which would typically need to be transported by a private vehicle, allowing active transport alternatives.
Funds for bicycle racks	Provision of 16 bicycle racks for staff	• Site Manager	Prior to site operation	Bicycle rack installation	100% staff engaged with Travel Plan Increase uptake of active transport for staff	Improve health and wellbeing of staff
• Funds for Opal Cards	Pre-loaded opal cards	• Site Manager	Within 6-months	Public transport fare subsidies		Reduce the number of vehicles arriving at the site during peak periods
• Funds for equipment	Subsidised panniers or backpacks for staff committed to active travel	• Site Manager	Within 6-months	 Equipment sourcing and subsidies 		Improve health and wellbeing of staff





• Staff Resources	Time in staff meetings to share tips and support for staff wanting to start walking to and from work.	• Site Manager	Within 1-month and ongoing	Communication materials	Education for all staff about different travel options to work.
• Funds for signage	Wayfinding for End of Trip facilities locating where showers, lockers and change rooms are.	• Site Manager	• Within 12-months	• Signage	All staff are aware of end-of- trip facilties
		•••			





7 Travel Access Guide

A Travel Access Guide (TAG) outlining relevant public transport maps and timetables is provided within **Annexure A.** More recent updates can be accessed via the Trip Planner (transport.info).



ANNEXURE A: TRAVEL ACCESS GUIDE



TRAVEL ACCESS GUIDE FOR THE SALVATION ARMY AT 23 KIORA ROAD, MIRANDA

Prepared for:



Assessed and Approved by:



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Transport Planning, Traffic Impact Assessments, Road Safety Audits, Expert Witness

TRAVEL MODES FOR YOU

The Salvation Army is located at 23 Kiora Road, Miranda. This Travel Access Guide outlines the various transport modes available to you when travelling to and from The Salvation Army.

There are many alternate transport modes connecting The Salvation Army to the rest of the Sutherland Shire LGA. In many cases it may be faster and more convenient to travel to The Salvation Army by alternate transportation than private vehicle.





Public Bus

Train

PLANNING AHEAD

To ensure that you arrive to TSA on time, plan ahead using the following resources provided by **Transport for New South Wales** (TfNSW):

- Trip Planner accessed via https://transportnsw.info/
- Opal Travel accessed via a downloadable application on your mobile device
- **TripView** accessed via a downloadable application on your mobile device
- City Mapper accessed via a downloadable application on your mobile device (https://citymapper.com/)

The above resources provide real-time service updates, detailed service information, walking and cycling distances and accessibility details.

USING ACTIVE TRANSPORT MODES FOR ALL OR SOME OF YOUR JOURNEY

Using active transport modes such as walking or cycling, for a part of your daily journey to and/or from school is a great way to improve and maintain your physical health along with your mental health. It can provide some well needed 'me-time' in your day.

PUBLIC TRANSPORT – OPAL FARES

The use of an OPAL card ensures the most efficient way to use public transport. A summary OPAL fares for available transport modes for children and adults are provided below:

- Adult OPAL fares:
 - Adult fares are capped to \$17.80 a day or \$50 a week
 - A discount of 30% fare discount incurs when using public transport outside of the peak times

For more information regarding OPAL fares please visit the <u>OPAL fares and payments website</u>.

GETTING TO THE SALVATION ARMY MIRANDA

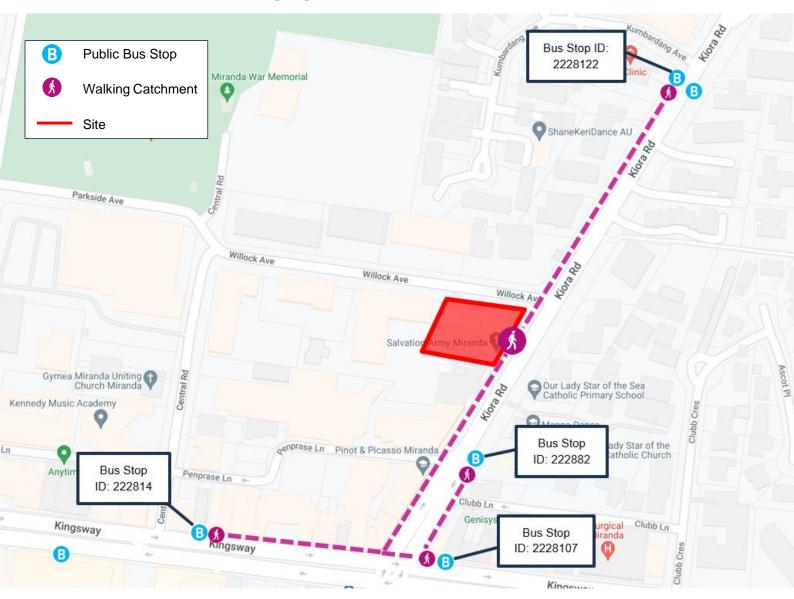
PUBLIC BUS SERVICES

The Salvation Army Miranda is well connected through many public bus services, as shown below.

PUBLIC BUS SERVICES

Doute	Do ationation		Frequency	
Route	Destination	8 – 9 AM	Off-Peak(1)	4 – 5 PM
961	Barden Ridge to Miranda	1-hour	30 mins	-
961	Miranda to Barden Ridge	30 mins	30 mins	-
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970	Hurstville to Miranda	30 mins	30 mins	20 mins
971	Cronulla to Hurstville	1 hour	1 hour	20 mins
971	Hurstville to Cronulla	30 mins	30 mins	30 mins
972	Sylvania to Miranda via Sylvania Waters	1-hour	-	-
972	Miranda to Sylvania via Sylvania Waters	1-hour	1-hour	1-hour
974	Miranda to Gymea Bay (Loop Service)	1-hour	1-hour	30 mins
975	Miranda to Grays Point (Loop Service)	-	1-hour	1-hour
976	Sutherland to Grays Point (Loop Service)	-	-	-
N11	Cronulla to City Town Hall (Night Service)	-	-	-
INII	City Town Hall to Cronulla (Night Service)	-	-	-

ALTERNATE TRANSPORT



As shown above, the site is well serviced by public bus services.

TRAIN FACILITIES

Miranda Train Station is approximately six (6) minutes walking distance (450m) to the south of the subject site. Miranda Train Station services the T4 – Eastern Suburbs & Illawarra Line providing a connection between Helensburgh Train Station to Bondi Junction Train Station.

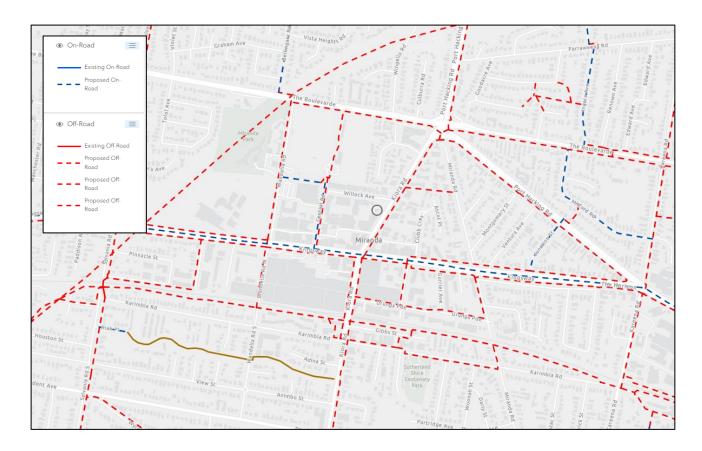
Destination	Frequency			
Destination	Off-Peak ⁽¹⁾	8 – 9 AM	4 – 5 PM	
T4 – Eastern Suburbs & Illawarra Line	15 mins	10 mins	15 mins	

NOTE:

(1) Off-peak period – $12:00_{PM}$ to $1:00_{PM}$.

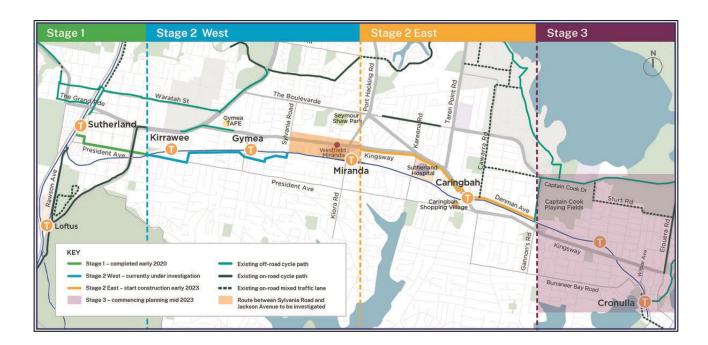
CYCLING FACILITIES

The subject site has access to cycle paths as presented within the *Sutherland Shire Council Cycle Network Map* which is shown below.



As shown, the subject site is not relatively well connected by existing cycle routes however there are a number of proposed cycle routes. A majority of the proposed cycle routes will be constructed as a part of Sutherland Shire

Council's "Sutherland to Cronulla Active Transport Link". An indicative map of the extent of works is shown below.



The construction of dedicated cycle routes will provide connections to key destinations and provide alternate transport modes for individuals travelling to and from the site.

In the future these routes will become available enabling another alternate transport mode to the site.