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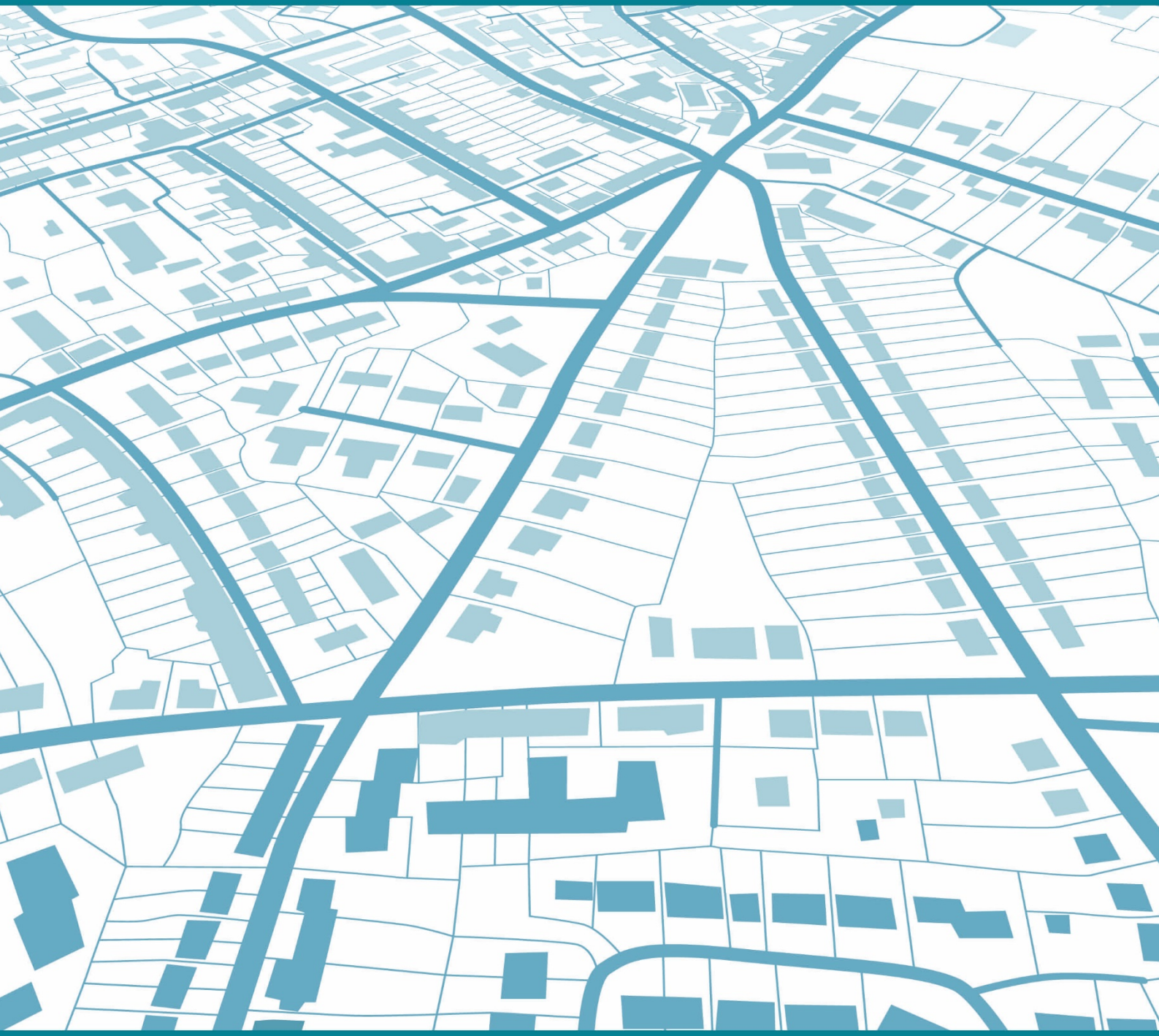

Lot 9, 18 Alexander Street, Collaroy

Proposed Boarding House Development

Traffic and Parking Impact Assessment

Ref: 18227
Date: February 2020
Issue: A

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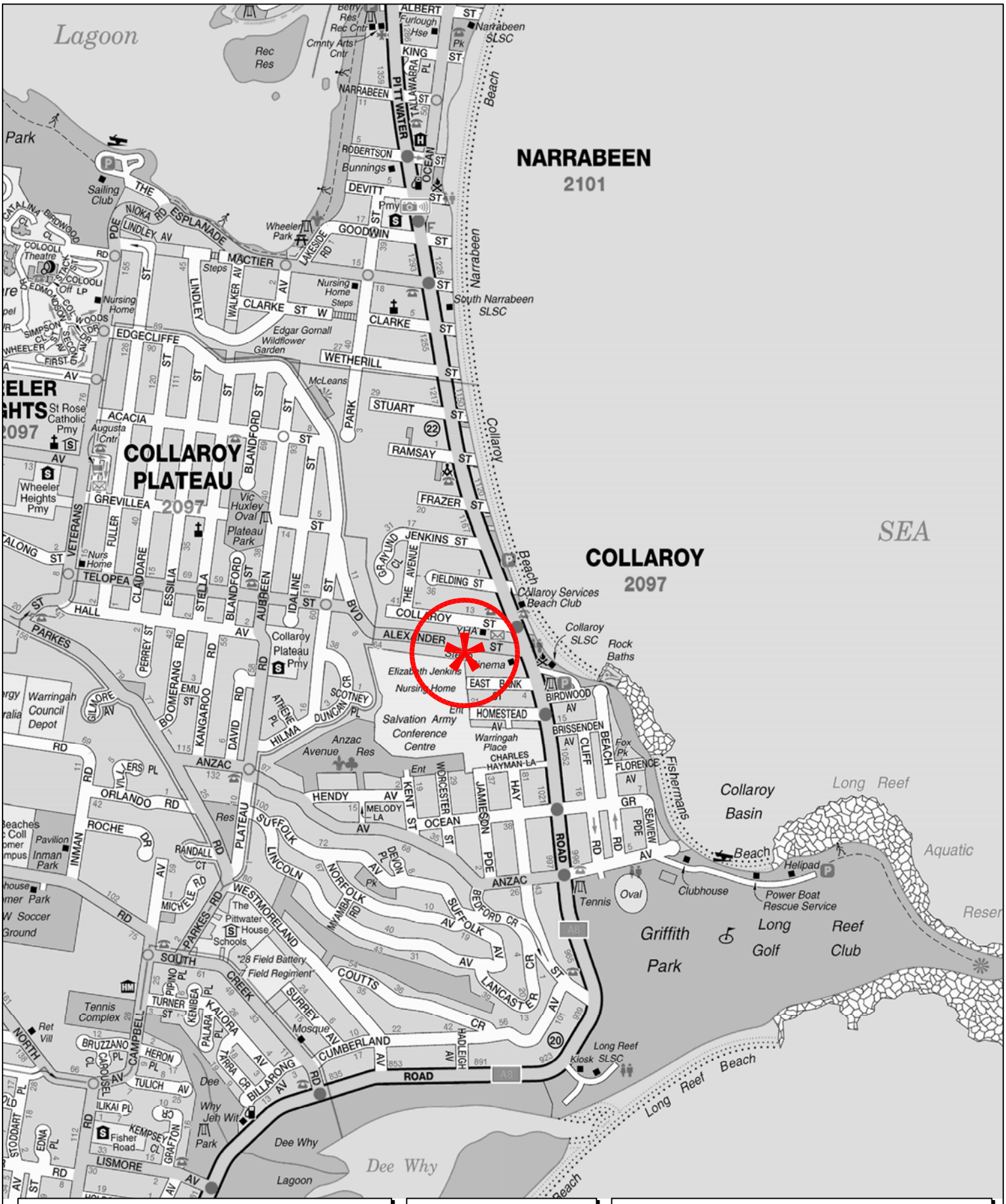
1.0 Introduction

This report has been prepared to accompany a Development Application to the Northern Beaches Council for a proposed boarding house development on a site at Lot 9 of 18 Alexander Street Collaroy (Figure 1).

There is an increasing demand for affordable housing and the development site presents a desirable location for low-cost accommodation, which also has the advantages of close proximity to public transport and employment centres. The proposed development scheme involves a purpose-built boarding house of 11 accommodation rooms and common areas with associated at-grade car parking.

The purpose of this report is to:

- describe the proposed development scheme
- describe the existing road network serving the site and the traffic conditions on that system
- assess the adequacy of the proposed parking provision for the development
- assess any potential traffic implications
- assess the suitability of the proposed access, internal circulation and servicing arrangements



LEGEND

LOCATION

FIG 1

2.0 Proposed Development Scheme

2.1 Site, Context and Existing Circumstances

The development site (Figure 2) being Lot 9 in DP6984 occupies a rectangular shaped area of some 581m^2. The site has a frontage of some 12m to the southern side of Alexander Street.

The site, which is consolidated with the adjoining Lot 8, is occupied by a single residential dwelling and vehicle access involves two driveways on Alexander Street. The site is adjoined by residential dwelling while other uses in the vicinity comprise:

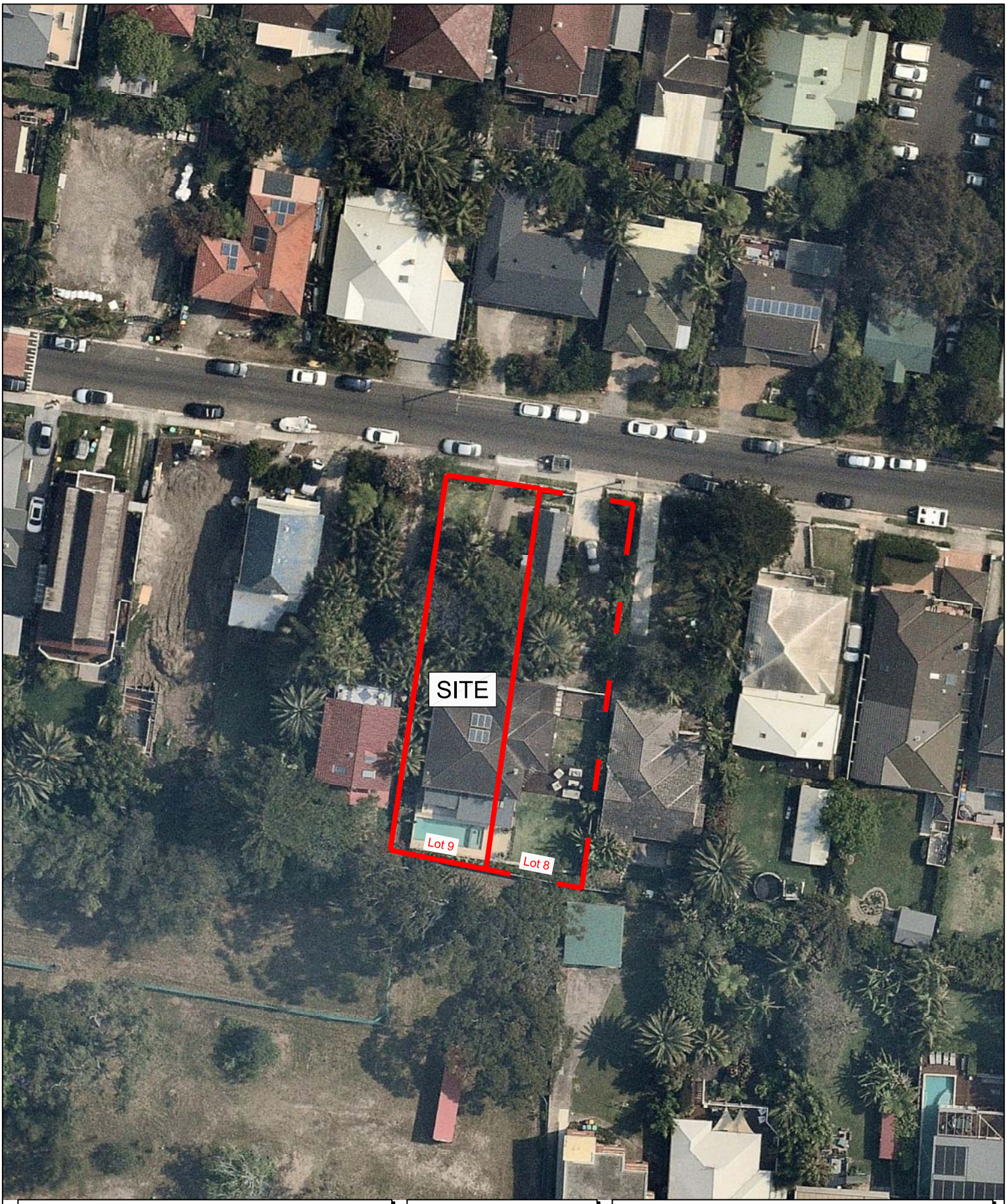
- the Collaroy Surf Life Saving Club to the east
- the Collaroy Centre to the south
- the Griffith Park to the southeast
- the industrial area to the southwest

2.2 Proposed Development

The proposed development scheme involves alterations and additions of the existing building and on the site to construct, a 2-storey boarding house complex comprising 11 accommodation beds (including 1 manager's room) and at-grade car parking. The new development will comprise:

Vehicle access will be located at Alexander Street and the at-grade carpark will accommodate 6 cars.

Architectural details of the development proposal are provided on the plans prepared by Walsh^2 Architects which accompany the DA submission.



LEGEND

N

SITE

FIG 2

3.0 Existing Road Network and Traffic Conditions

3.1 Road Network

The existing road network serving the site (Figure 3) comprises:

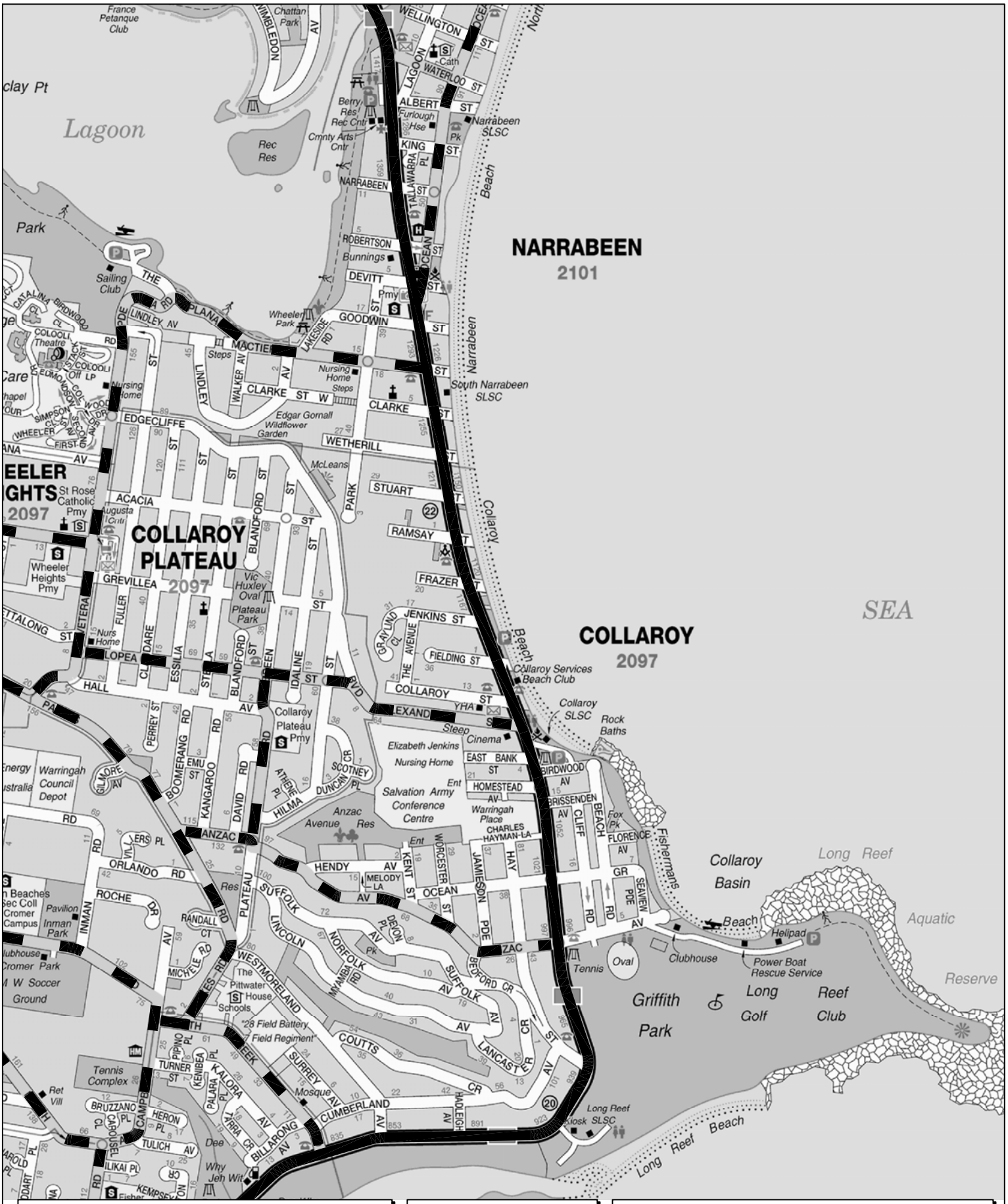
- *Pittwater Road* – a State Road and arterial route linking between Manly and the Northern Beaches
- *Veterans Parade / Mactier Street* – a collector road route which provides a linkage between Narrabeen, Wheeler Heights and the Collaroy Plateau
- *Telopea Street / Alexander Street* – a collector road route linking between Wheeler Heights and Collaroy
- *Anzac Avenue / Parkes Road / South Creek Road* – minor collector local access roads.

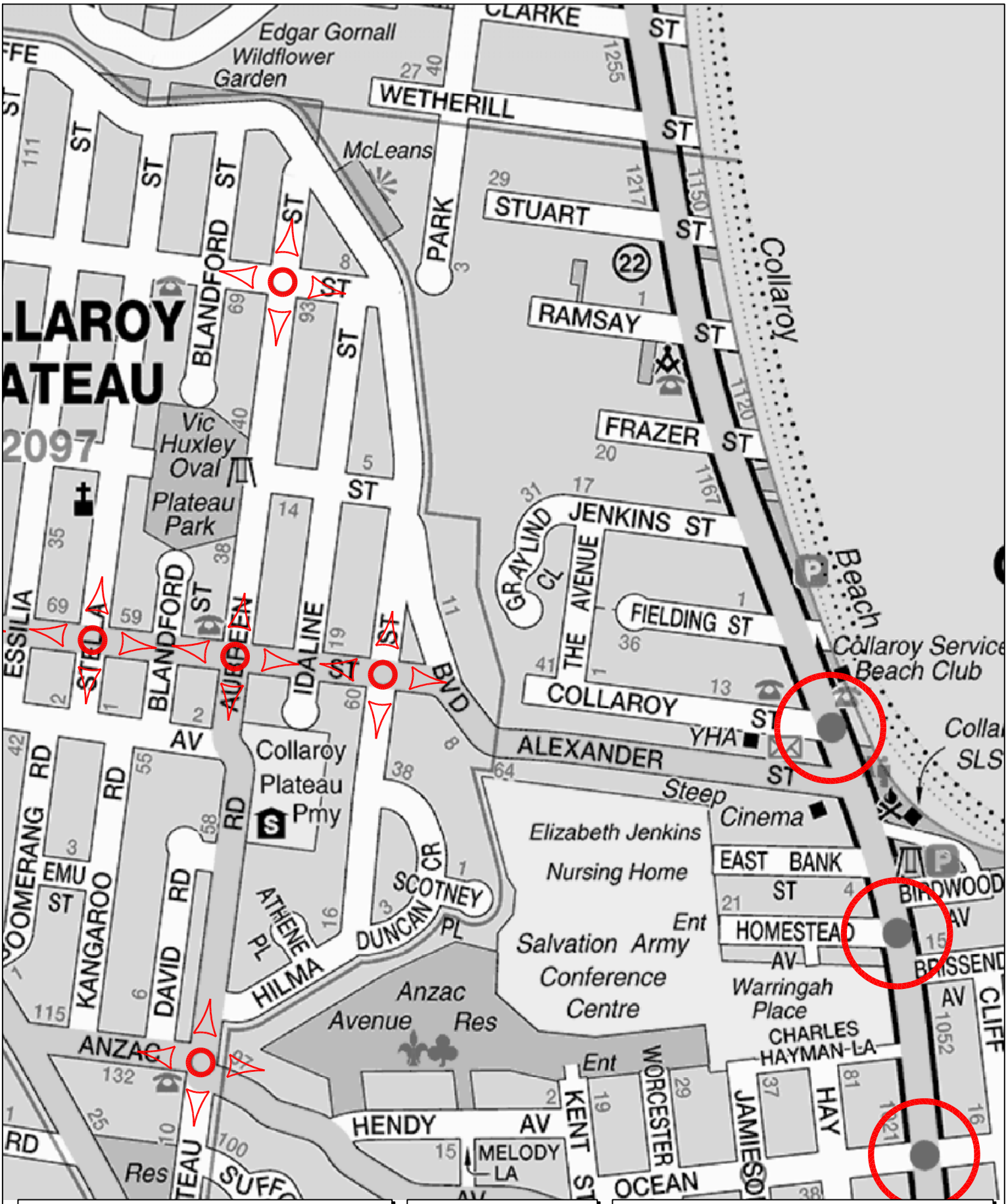
Alexander Street has a 7.5m wide carriageway and falls to the east.

3.2 Traffic Controls

Details of the existing traffic controls which exist in the vicinity of the site are shown on Figure 4 and summarised as follows:

- the roundabouts along Telopea Street
- the traffic signals along Pittwater Road including the intersections with Collaroy Street, Homestead Avenue, Ocean Grove and Anzac Avenue
- the GIVEWAY priority control at the Alexander Street/ Pittwater road intersection
- the light vehicle traffic restriction on Alexander Street
- the KEEP CLEAR control at the intersection of Pittwater Road and Alexander Street
- the speed humps along Alexander Street


NARRABEEN
2101
COLLAROY PLATEAU
2097
COLLAROY
2097
SEA
Lagoon
Park
Beach
Narrabeen
Collaroy
Griffith Park
Long Reef Golf Club
Collaroy Basin
Long Reef Aquatic Reserve
Long Reef Beach
Fishermans
Rec Res
Anzac Avenue Res
Vic Huxley Oval
Plateau Park
Edgar Gornall Wildflower Garden
Tennis Complex
Mosque
Oval
Tennis
Clubhouse
Helipad
Power Boat Rescue Service
Collaroy Services Beach Club
Collaroy SLSC
Narrabeen SLSC
South Narrabeen SLSC
Long Reef Kiosk SLSC
Rock Baths
Cinema
Elizabeth Jenkins Nursing Home
Salvation Army Conference Centre
Warringah Place
Fox Pk
Sailing Club
Wheeler Park
Lakeside Rd
Chattan Park
Berry Res
Rec Cntr
Cmnty Arts Cntr
Furlough Hse
Bunnings
Nursing Home
Steps
Collaroy Plateau Pmy
Wheeler Heights Pmy
St Rose Catholic Pmy
Augusta Cntr
Nurs Home
Warringah Council Depot
Pavilion
Inman Park
Cromer Park
W Soccer Ground
The Pittwater House Schools
"28 Field Battery" "7 Field Regiment"
Ret Vill
Why Jeh Wit
Dee
Cath
Pmy
Ent
Steep
YHA
Fisher
Wellington St
Waterloo St
Albert St
King St
Narrabeen St
Robertson
Devitt
Goodwin
Macpherson
Clarke St W
Clarke St
Wetherill
Stuart
Ramsay
Frazer
Jenkins St
Fielding St
Collaroy St
Exand St
Hall
Lopea
Grevillea
Acacia
Edgecliffe
Lindley Av
Plana
The
Blandford St
Idaline St
Boomerang Rd
Kangaroo
David Rd
Hilma
Duncan Pl
Scotney Cr
Athenel Pl
Anzac
Hendy Av
Orlando Rd
Roche Dr
Randall Ct
Plateau
Suffolk
Lincoln
Norfolk
Devon Pl
Westmoreland
Coutts
Surrey
Cumberland
Billarong
Kalora
Yarra Cr
Palara Pl
Kembla Pl
Turner St
Pippino Pl
Michele Rd
Inman
Jamieson Pde
Seaview Pde
Florence Av
Brissenden Av
Cliff
Beach
Gr
Ocean
Worcester
Kent St
Melody La
Charles Hayman La
Bedford Cr
Lancaster Cr
Hadleigh Cr
Heron Pl
Bruzzano Pl
Tulich Av
Ilikai Pl
Birdwood Av
East Bank St
Homestead Av
Graylind Cl
The Avenue
Park
Lagoon St
Wimbledon Av
Clay Pt
France Petanque Club
Legend
Arterial
Sub-arterial
Collector
N
Road Network
Fig 3



LEGEND

- TRAFFIC SIGNAL CONTROL
- ROUNDABOUT
- RESTRICTED TURNING MOVEMENT

N

TRAFFIC CONTROLS

FIG 4

- the bus lane restriction on Pittwater Road between 6-10am on the southbound direction and 3-7pm on the northbound direction

3.3 Traffic Conditions

An indication of traffic conditions on the road system serving the site is provided by data published by the Roads and Maritime Services. The data[1] published by the RMS is expressed in terms of average annual daily traffic (AADT) and details relevant to the road system serving the site are provided in the following:

	AADT
Pittwater Road north of Jenkins Street	39,587

Observation of traffic operations in the vicinity of the site (in particular Alexander Street) indicates a satisfactory operating circumstance during the peak periods. Vehicles' access and turning movements on Alexander Road are not subject to extensive delays when accessing the higher order roads i.e. Pittwater Road.

3.4 Transport Services

There are frequent bus services running along Pittwater Road some 250m from the site. These services are operated by Sydney Buses and connect the site with major centres i.e. Manly, Brookvale, North Sydney and the City.

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

[1] *Traffic Volume Data for Sydney Region*
Roads and Traffic Authority

4.0 Parking

4.1 Car Parking

An indication of the parking required in relation to the proposed development is provided in the SEPP (ARH) 2009 as follows:

0.5 space per boarding room
1 space for staff/ manager who is also a resident

Application of the above criteria to the proposed 11 rooms (including 1 manager's room) would indicate a requirement of 5.5(6) spaces and it is proposed to provide 6 spaces onsite including 1 reserved for the manager who is also a resident onsite to comply with the relevant requirement.

4.2 Motorcycle Parking

The SEPP requires motorcycle parking spaces to be provided at a rate of 1 space for every 5 boarding rooms. Motorcycle spaces are required to be 2.5m long by 1.2m wide in accordance with AS2890 requirements. Accordingly, the proposal is required to provide 2 motorcycle parking spaces. Thus, 2 motorcycles spaces have been accommodated in the car parking area to satisfy this requirement.

4.3 Bicycle Parking

The SEPP specifies a rate of 1 bicycle space for every 5 boarding rooms. Application of this rate would indicate a requirement of 2 bicycle parking spaces.

The proposal provides a storage facility capable of accommodating up to 3 bicycle spaces in the carparking area to comply with the SEPP criteria.

5.0 Traffic

The RMS Development Guidelines[2] specify a peak hour traffic generation rate for high-density residential development of 0.19 and 0.15 vtph per unit during the AM and PM peak periods. However, the traffic generation rate is lower in affordable housing development due to the lower car ownership and parking provision. Nevertheless, if the standard RMS criteria were applied to the proposal then the projected peak traffic generation outcome would indicate some 2-3 vtph in the AM and PM peaks, and these would be distributed as follows:

AM		PM	
IN	**OUT**	**IN**	**OUT**
0	2	3	0

Traffic generation of this order of magnitude is very minor in the context of the local and arterial road system and will not act to create unacceptable traffic congestion or conflict at the vehicle access point or at the adjacent intersections.

[2] TDT 2013/ 04a - Guide to Traffic Generating Developments Updated traffic surveys ,Roads and Maritime Services

6.0 Access, Internal Circulation and Servicing

6.1 Access

Vehicle access for Lot 9 will involve a 3.6m wide combined driveway at Alexander Street. The proposed access accords with the design requirements of Clause 3.2.2 of AS2890.1 and specifically in relation to the following:

- that the frontage roadway is a local road
- that the driveway is not longer than 30m
- that the sightlines between entry point and carpark are adequate

6.2 Internal Circulation

The proposed internal circulation arrangement has been designed to accord with AS2890.1 design criterion. Vehicles will be able to enter/exit in a forward manner with no undue difficulty. Details of swept path assessment indicating a satisfactory outcome in this regard are provided in Appendix B.

6.3 Servicing

Refuse collection will continue to occur via Alexander Street on-street (i.e. bins wheeled out for collection on the designated day). All loading activities related to deliveries, courier activity, maintenance, etc. can be reliant on the ample on-street parking which exists in the vicinity of the site.

7.0 Conclusion

A Development Application is to be lodged with Northern Beaches Council for a proposed boarding house development at Lot 9, 18 Alexander Street, Collaroy. The traffic, transport and parking assessment provided in this report has established that:

- the traffic generation of the proposed development will not present any adverse traffic implications and traffic-related environmental impacts
- the proposed parking provision will be adequate and will accord with the SEPP criteria
- the proposed access and internal circulation will be appropriate to current AS2890.1 and 6 design standards
- the proposed servicing arrangement is appropriate and adequate

Appendix A

Transport Services

Routes 151, E54, 188, E88, E89, L90, 199

B

Route E54 to Milsons Point

Picks up and sets down as requested at Mona Vale, Pittwater Park, Narrabeen, Collaroy, Dee Why, Warringah Mall, Kenneth Rd Manly Vale, Spit Jn and Neutral Bay Jn, then all stops.

Route E54 to Mona Vale

Picks up only at all stops to Neutral Bay Jn, then Spit Jn, then picks up and sets down as requested at Kenneth Rd Manly Vale, Warringah Mall, Dee Why, Collaroy, Narrabeen, Pittwater Park and Mona Vale.

Routes E88 and E89 to City

Picks up and sets down as requested all stops to Narrabeen, then Spit Jn, Neutral Bay Jn and Wynyard.

Routes E88 and E89 to Avalon

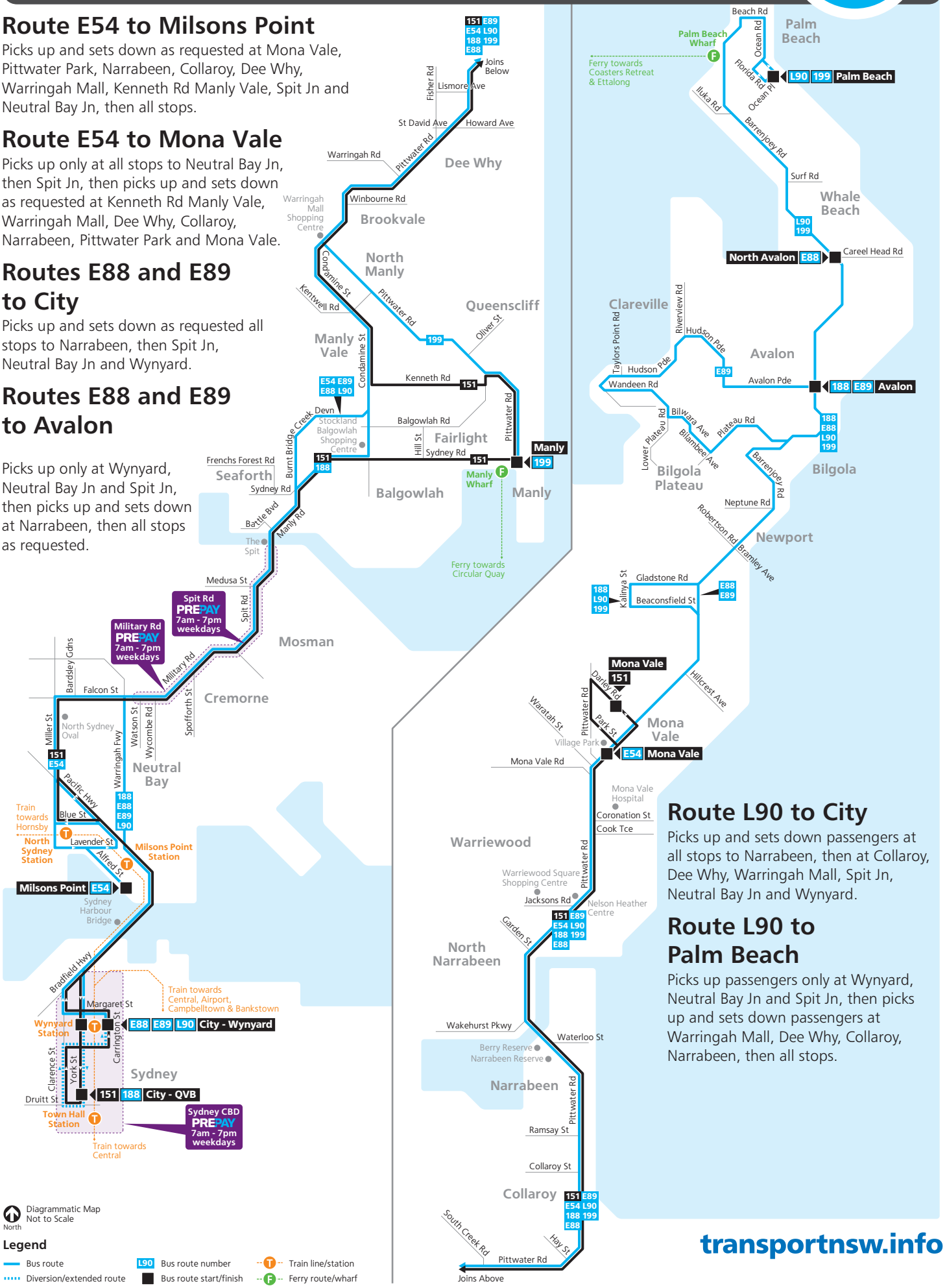
Picks up only at Wynyard, Neutral Bay Jn and Spit Jn, then picks up and sets down at Narrabeen, then all stops as requested.

Route L90 to City

Picks up and sets down passengers at all stops to Narrabeen, then at Collaroy, Dee Why, Warringah Mall, Spit Jn, Neutral Bay Jn and Wynyard.

Route L90 to Palm Beach

Picks up passengers only at Wynyard, Neutral Bay Jn and Spit Jn, then picks up and sets down passengers at Warringah Mall, Dee Why, Collaroy, Narrabeen, then all stops.



Diagrammatic Map
Not to Scale
North

Legend

- Bus route
- Diversion/extended route
- L90 Bus route number
- Bus route start/finish
- Train line/station
- Ferry route/wharf

transportnsw.info

Routes 182, E83, 185, E85

Routes E83 and E85 to City

Picks up and sets down passengers at all stops to Dee Why, then Warringah Mall, Neutral Bay Junction and Wynyard.

Routes E83 and E85 from City

Picks up passengers only at Wynyard, then Neutral Bay Junction, then picks up and sets down passengers at Warringah Mall, Dee Why and then all stops.

E60 PrePay-Only - Mona Vale to Chatswood (Express Service)

B

How to use this timetable

This timetable provides a snapshot of service information in 24-hour time (e.g. 5am = 05:00, 5pm = 17:00). Information contained in this timetable is subject to change without notice. Please note that timetables do not include minor stops, additional trips for special events, short term changes, holiday timetable changes, real-time information or any disruption alerts.

For the most up-to-date times, use the Trip Planner or Departures on **transportnsw.info**

Real-time planning

You can plan your trip with real-time information using the Trip Planner or Departures on **transportnsw.info** or by downloading travel apps on your smartphone or tablet.

The Trip Planner, Departures and travel apps offer various features:

- favourite your regular trips
- see where your service is on the route
- get estimated pick up and arrival times
- receive service updates
- find nearby stations, stops, wharves and routes
- check accessibility information

Find the latest apps at **transportnsw.info/apps**

Accessible services

All new buses are wheelchair-accessible with low-level floors and space for wheelchairs, prams or strollers. Look for the ♿ symbol in this timetable. Some older buses may not have all the features you need. There will be more accessible services as older buses are replaced.

Who is providing my bus services?

The bus services shown in this timetable are run by State Transit.

Fares

In Sydney and surrounding regions, fares are based on:

- the distance you travel from tap on to tap off
- the mode of transport you choose
- whether you're eligible for a concession fare or free travel
- any Opal benefits such as discounts and capped fares that apply

You can use an Opal card or a contactless payment to pay for your travel.

Opal cards

An Opal card is a smartcard you keep and reuse. Add value before you travel and tap on and tap off to pay your fares throughout Sydney, the Blue Mountains, Central Coast, the Hunter and the Illawarra.

Which Opal card is right for you?

Adult - Customers 16 years and over who are not entitled to any concessions and normally pay full fare.

Child/Youth - For customers aged 4-15 (inclusive), or customers 16 years or older who hold a NSW/ACT Senior Secondary Student Concession Card.

Gold Senior/Pensioner - For eligible NSW and interstate seniors, pensioners, war widows/ers and asylum seekers.

Concession - For eligible tertiary students, job seekers, apprentices and trainees.

How to get an Opal card

You can get an Adult or Child/Youth Opal card over the counter at Opal retailers that display the Opal sign. To find your nearest retailer visit **transportnsw.info/opal**.

If you are eligible to travel with concession fares you can apply for a Gold Senior/Pensioner or Concession Opal card online. Visit **transportnsw.info/opal** for more information.

Contactless payments

If you have an American Express, Mastercard, Visa card or linked device, you can use it to pay for all public transport on the Opal network. Just make sure to tap on and tap off at Opal readers at the beginning and end of your trip.

Always separate your cards when you tap on and tap off so your preferred card is charged.

You will receive the same travel benefits of an Adult Opal card when you tap on and tap off consistently with the same credit card, debit card or linked device. This includes daily, weekly and Sunday travel caps, and a $2 transfer discount when you change between metro/train, ferry, bus or light rail services within 60 minutes. Adult Opal fare pricing applies.

Find out more at **transportnsw.info/contactless**

Explanation of definitions and symbols

♿	Wheelchair Accessible
◗	Picks up passengers only
◖	Drops off passengers only

NSW GOVERNMENT | Transport

E60 PrePay-Only - Chatswood to Mona Vale (Express Service)

Valid from: 19 Dec 2019

Creation date: 10 Jan 2020
NOTE: Information is correct on date of download.

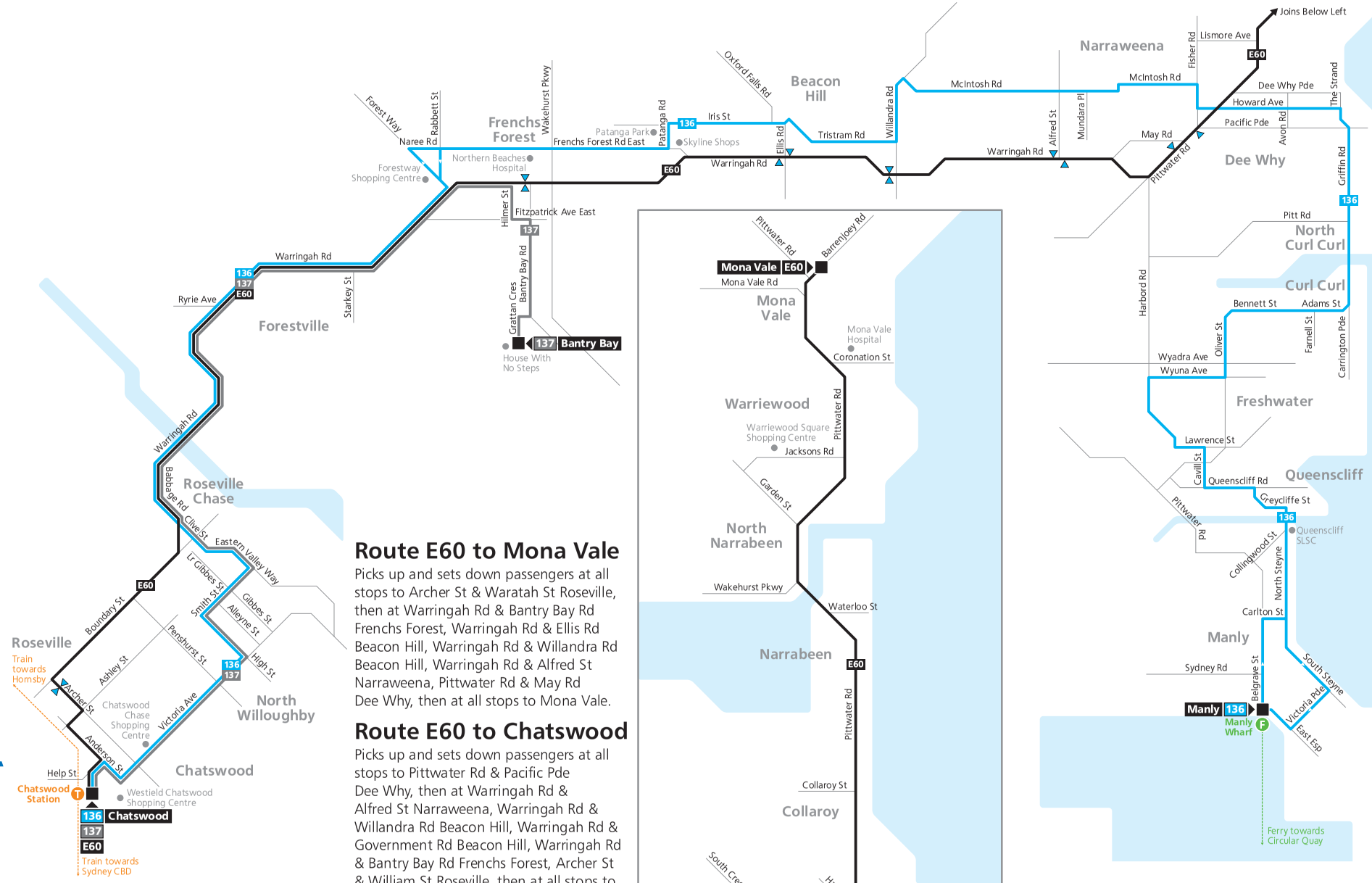
Monday to Friday	♿	♿	♿	♿	♿
Chatswood Station	15:40	16:10	16:40	17:12	17:42
Archer St at William St, Roseville	15:43	16:13	16:43	17:15	17:45
Warrringah Rd at Bantry Bay Rd, Frenchs Forest	16:02	16:32	17:02	17:34	18:04
Warringah Rd at Ellis Rd, Beacon Hill	16:06	16:36	17:06	17:38	18:08
Warringah Rd before Willandra Rd, Beacon Hill	16:08	16:38	17:08	17:40	18:10
Warringah Rd before Alfred St, Narraweena	16:11	16:41	17:11	17:43	18:13
Dee Why B-Line, Dee Why	16:20	16:50	17:20	17:52	18:22
Collaroy B-Line, Collaroy	16:29	16:59	17:29	18:01	18:31
Narrabeen B-Line, Narrabeen	16:35	17:05	17:35	18:07	18:37
Mona Vale B-Line, Mona Vale	16:48	17:18	17:48	18:19	18:49

E60 PrePay-Only - Mona Vale to Chatswood (Express Service)

B

Monday to Friday					
Barrenjoey Rd opp Village Park, Mona Vale	06:10	06:30	06:50	07:10	07:40
Narrabeen Shops, Pittwater Rd, Narrabeen	06:17	06:37	06:57	07:18	07:48
Collaroy B-Line, Collaroy	06:21	06:41	07:01	07:23	07:53
Dee Why Shops, Pittwater Rd, Dee Why	06:29	06:49	07:10	07:32	08:02
Warringah Rd opp Alfred St, Narraweena	06:34	06:54	07:15	07:37	08:08
Warringah Rd after Willandra Rd, Beacon Hill	06:36	06:56	07:17	07:39	08:10
Warringah Rd at Goverment Rd, Beacon Hill	06:37	06:57	07:19	07:41	08:12
Warringah Rd at Bantry Bay Rd, Frenchs Forest	06:50	07:11	07:36	07:59	08:30
Archer St at William St, Roseville	07:07	07:31	07:57	08:20	08:51
Chatswood Station	07:13	07:37	08:04	08:27	08:58

Routes 136, 137, E60



Route E60 to Mona Vale

Picks up and sets down passengers at all stops to Archer St & Waratah St Roseville, then at Warringah Rd & Bantry Bay Rd Frenchs Forest, Warringah Rd & Ellis Rd Beacon Hill, Warringah Rd & Willandra Rd Beacon Hill, Warringah Rd & Alfred St Narraweena, Pittwater Rd & May Rd Dee Why, then at all stops to Mona Vale.

Route E60 to Chatswood

Picks up and sets down passengers at all stops to Pittwater Rd & Pacific Pde Dee Why, then at Warringah Rd & Alfred St Narraweena, Warringah Rd & Willandra Rd Beacon Hill, Warringah Rd & Government Rd Beacon Hill, Warringah Rd & Bantry Bay Rd Frenchs Forest, Archer St & William St Roseville, then at all stops to Chatswood Transport Interchange.

Legend

- Bus route
- 136 Bus route number
- Bus route start/finish
- T Train line/station
- F Ferry route/wharf
- stops for limited stops services

Diagrammatic Map Not to Scale

North

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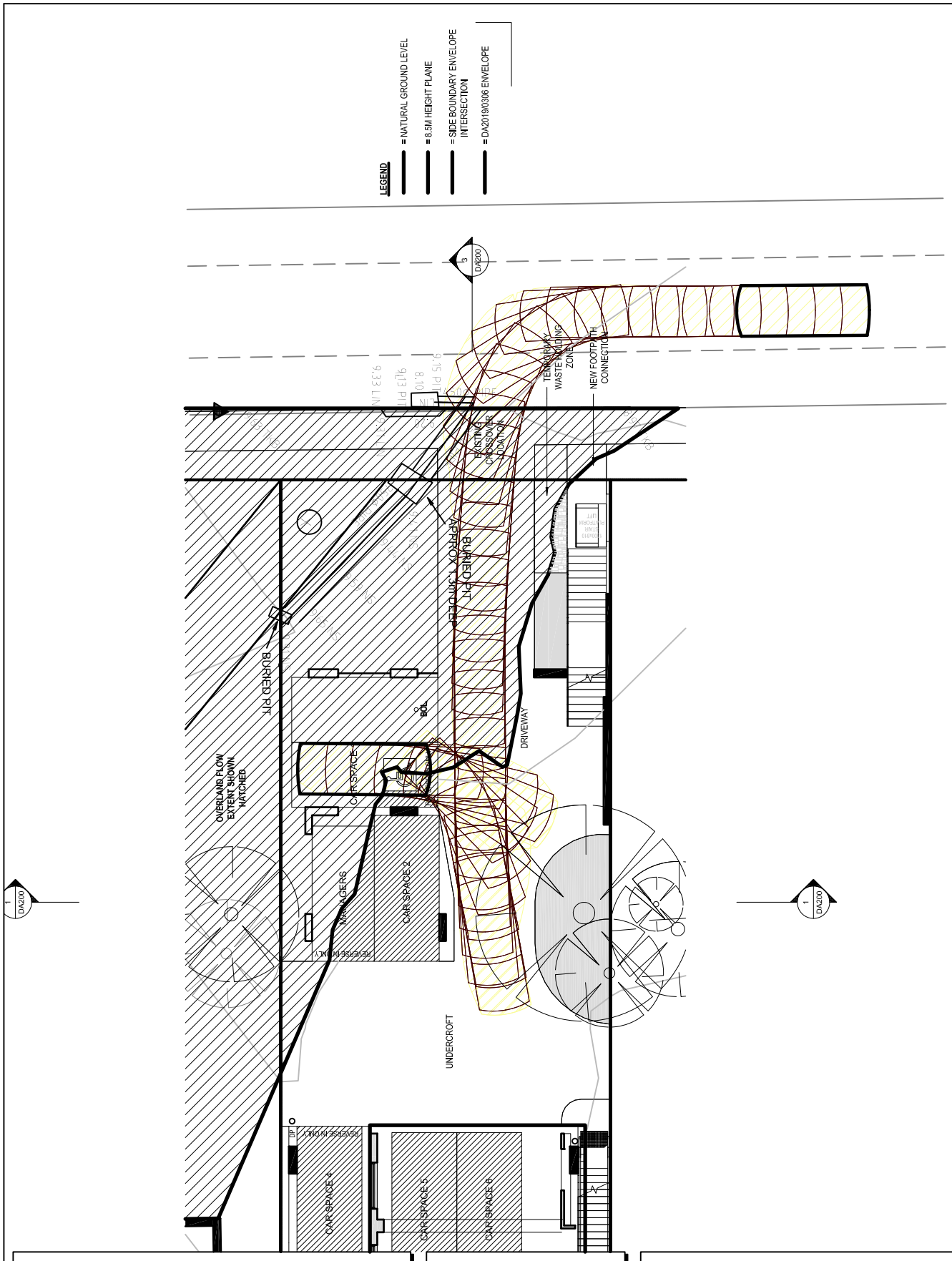
Appendix B

Turning Path Assessment



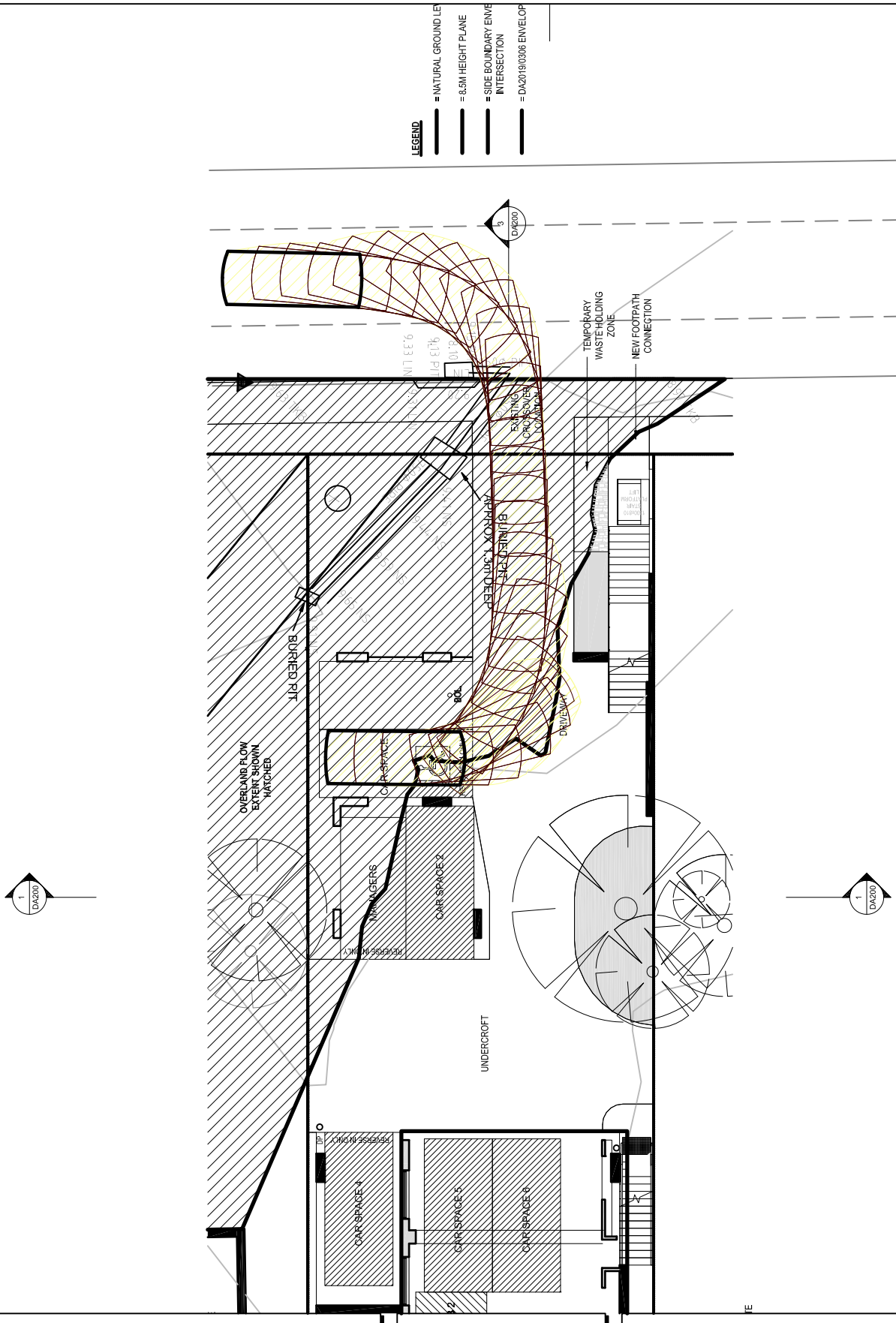
LEGEND

This drawing has been prepared using vehicle modelling computer software AutoTrack V5.00a in conjunction with AutoCAD 2013. The vehicle used is based upon vehicle data provided by Austroads and incorporates a reasonable degree of tolerance. However, it is not possible to account for all vehicle types/characteristics and/or driver ability.

N

SWEPT PATH ANALYSIS OF A 85th PERCENTILE VEHICLE ENTERING THE SITE

SP 1



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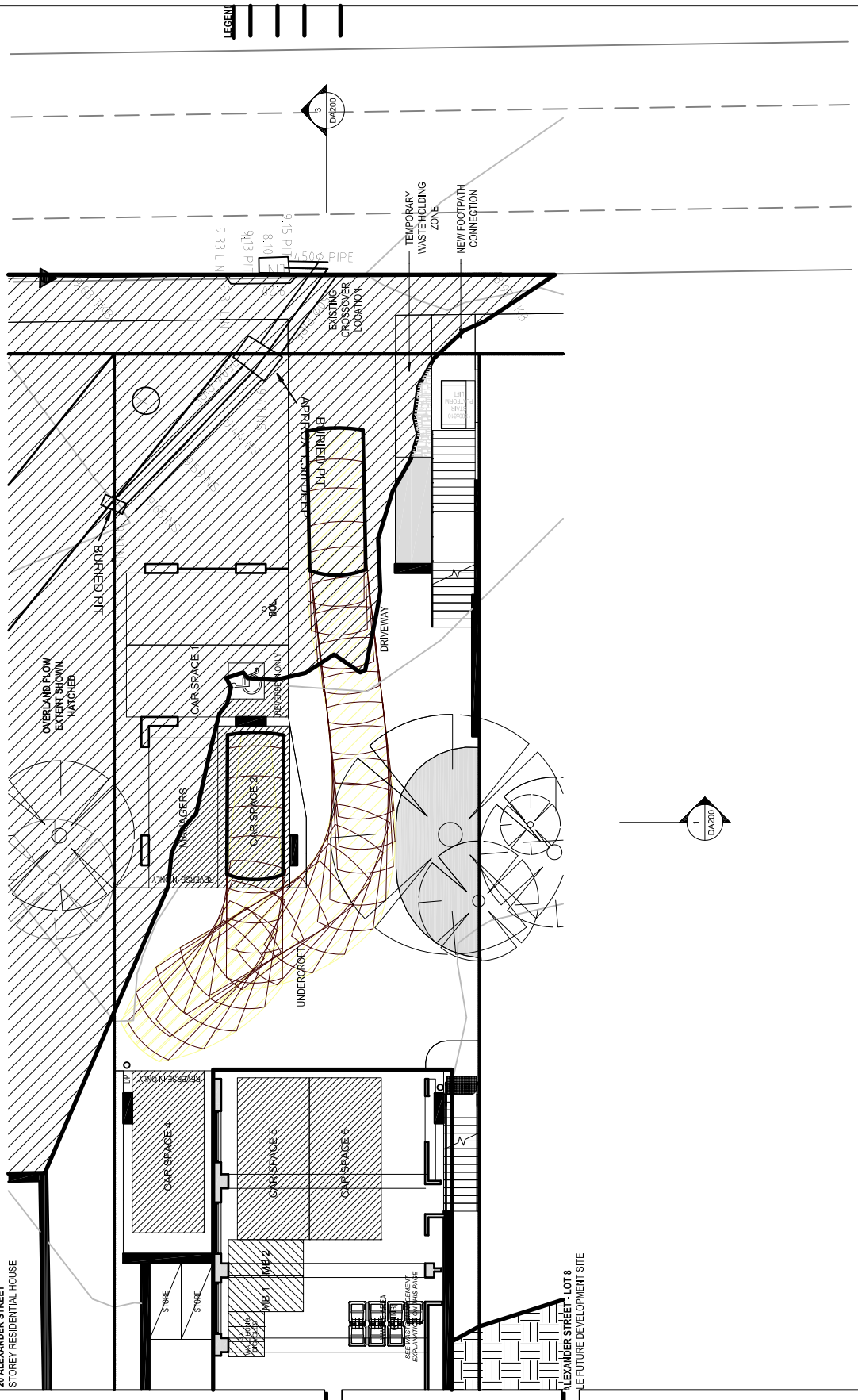
SWEPT PATH ANALYSIS OF A 85th PERCENTILE VEHICLE EXITING THE SITE

SP 2



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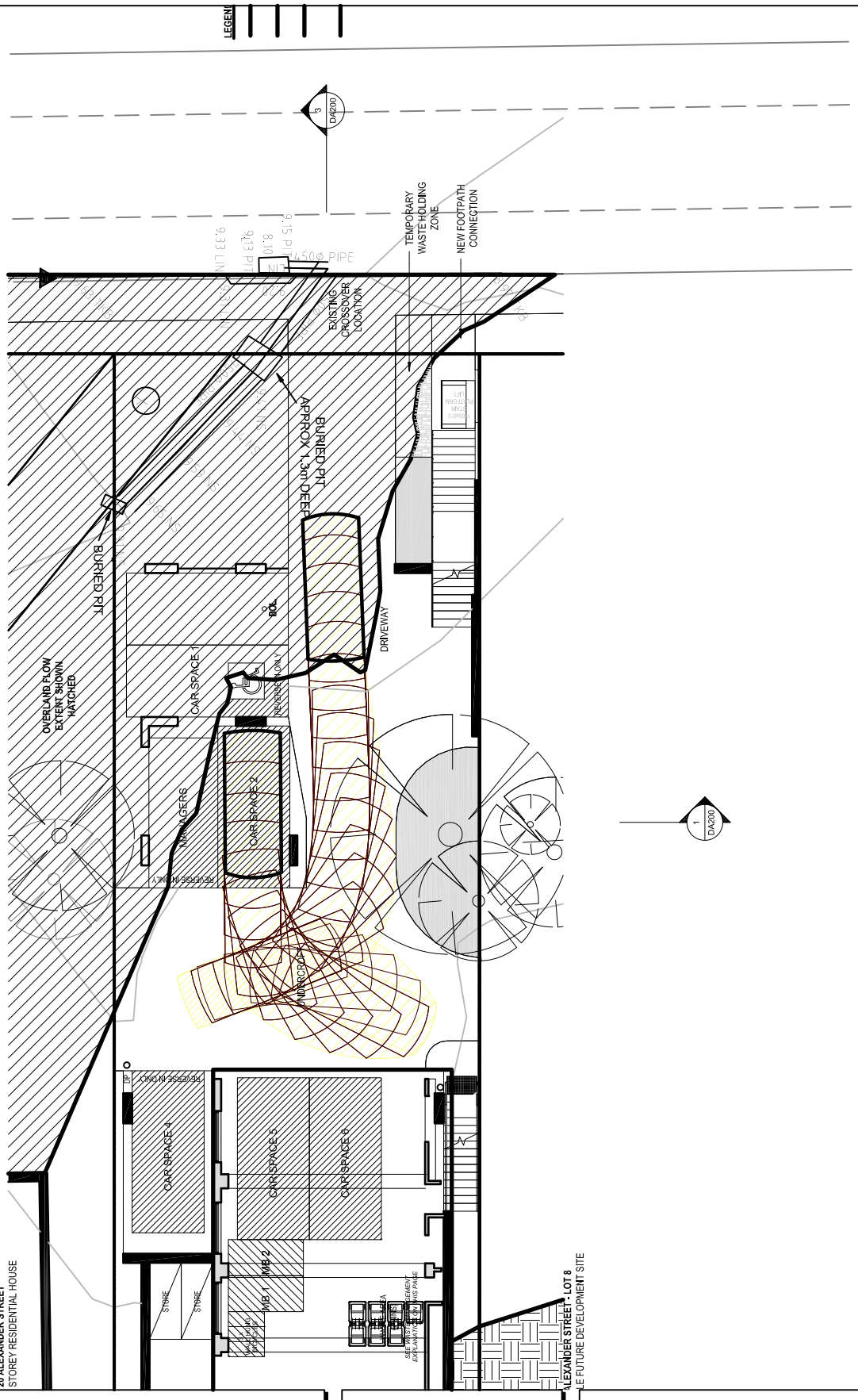
SWEPT PATH ANALYSIS OF A 85th PERCENTILE VEHICLE ENTERING THE SITE

SP 3



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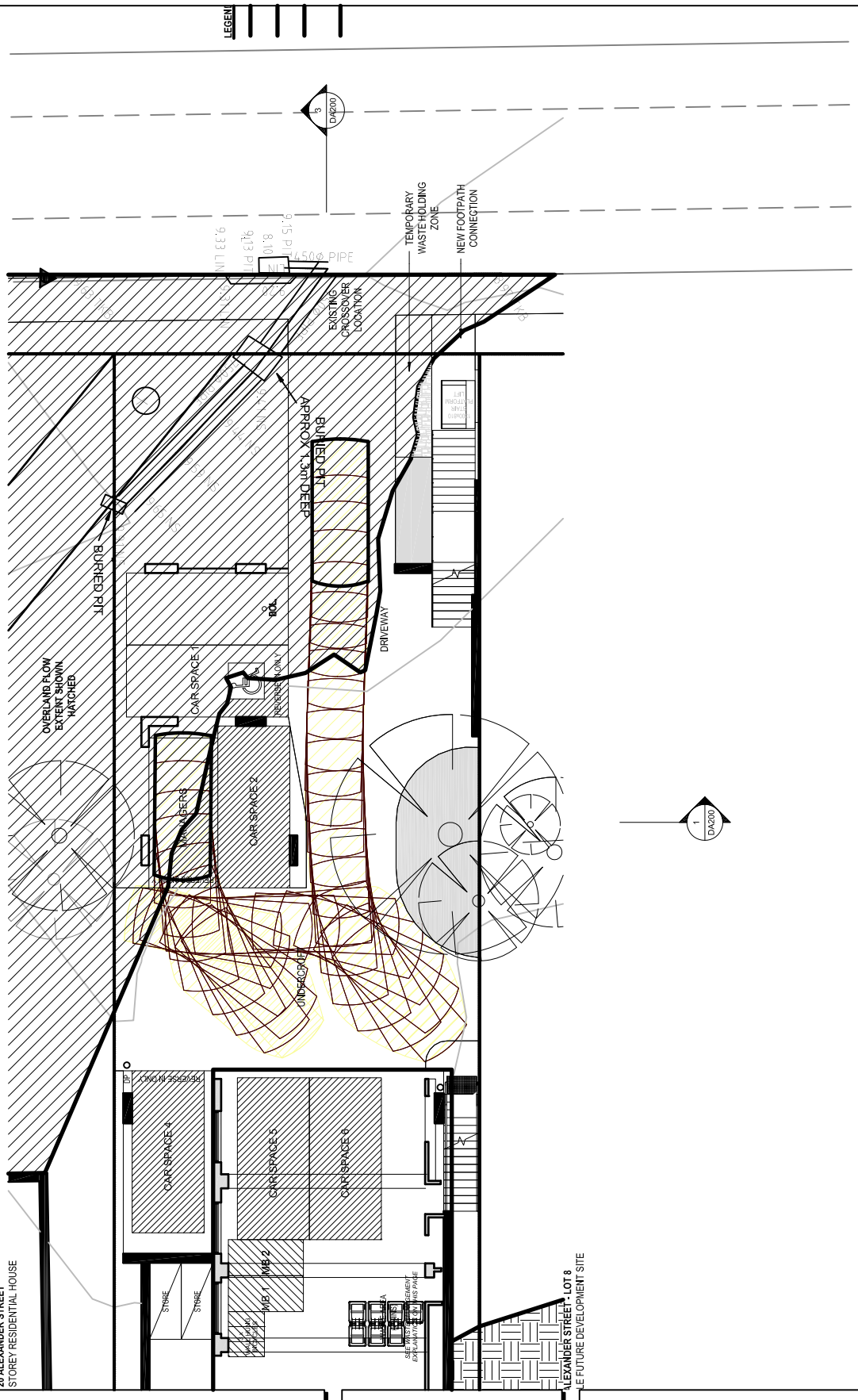
N

SWEPT PATH ANALYSIS OF A 85th PERCENTILE VEHICLE EXITING THE SITE

SP 4



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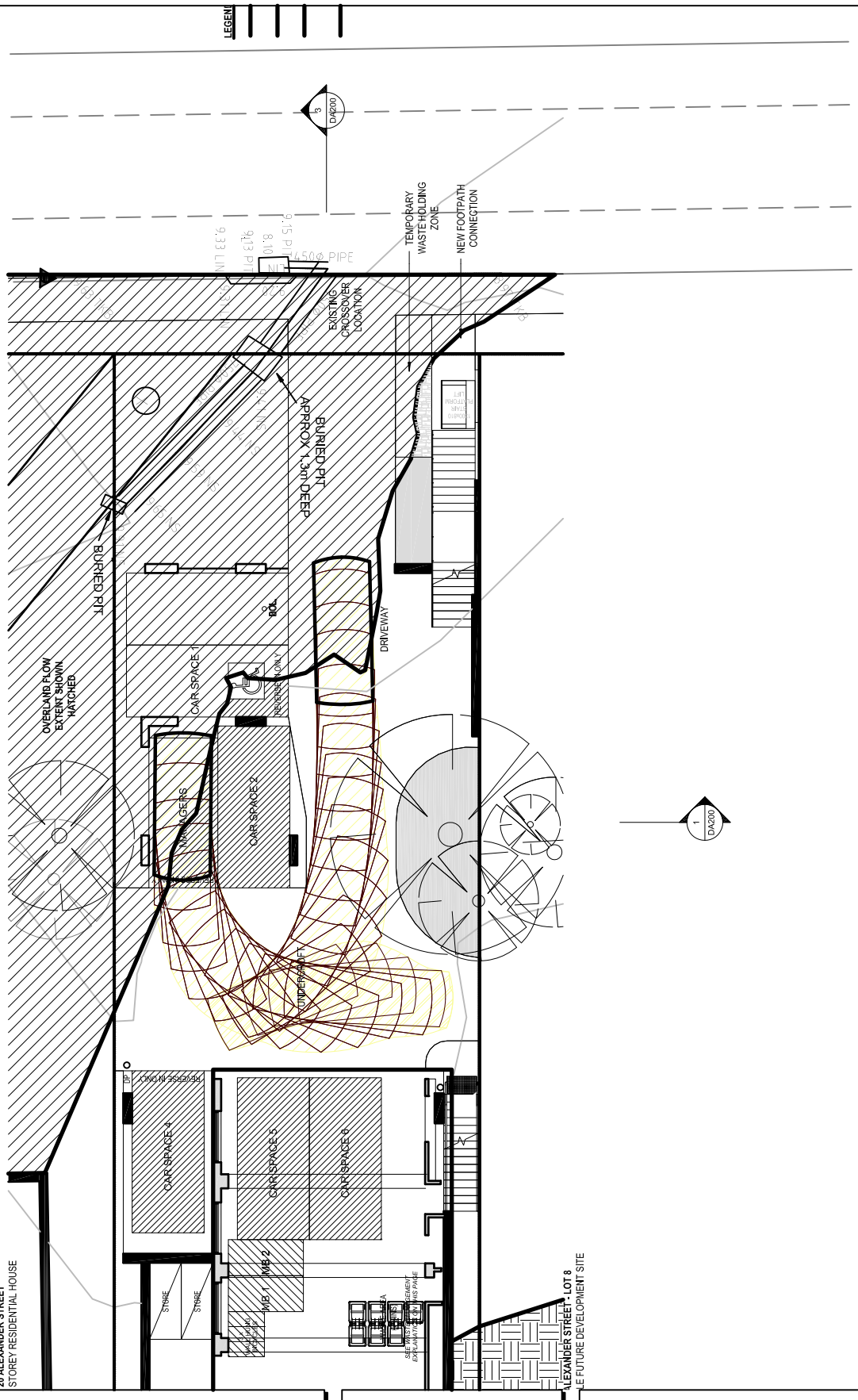
SWEPT PATH ANALYSIS OF A 85th PERCENTILE VEHICLE ENTERING THE SITE

SP 5



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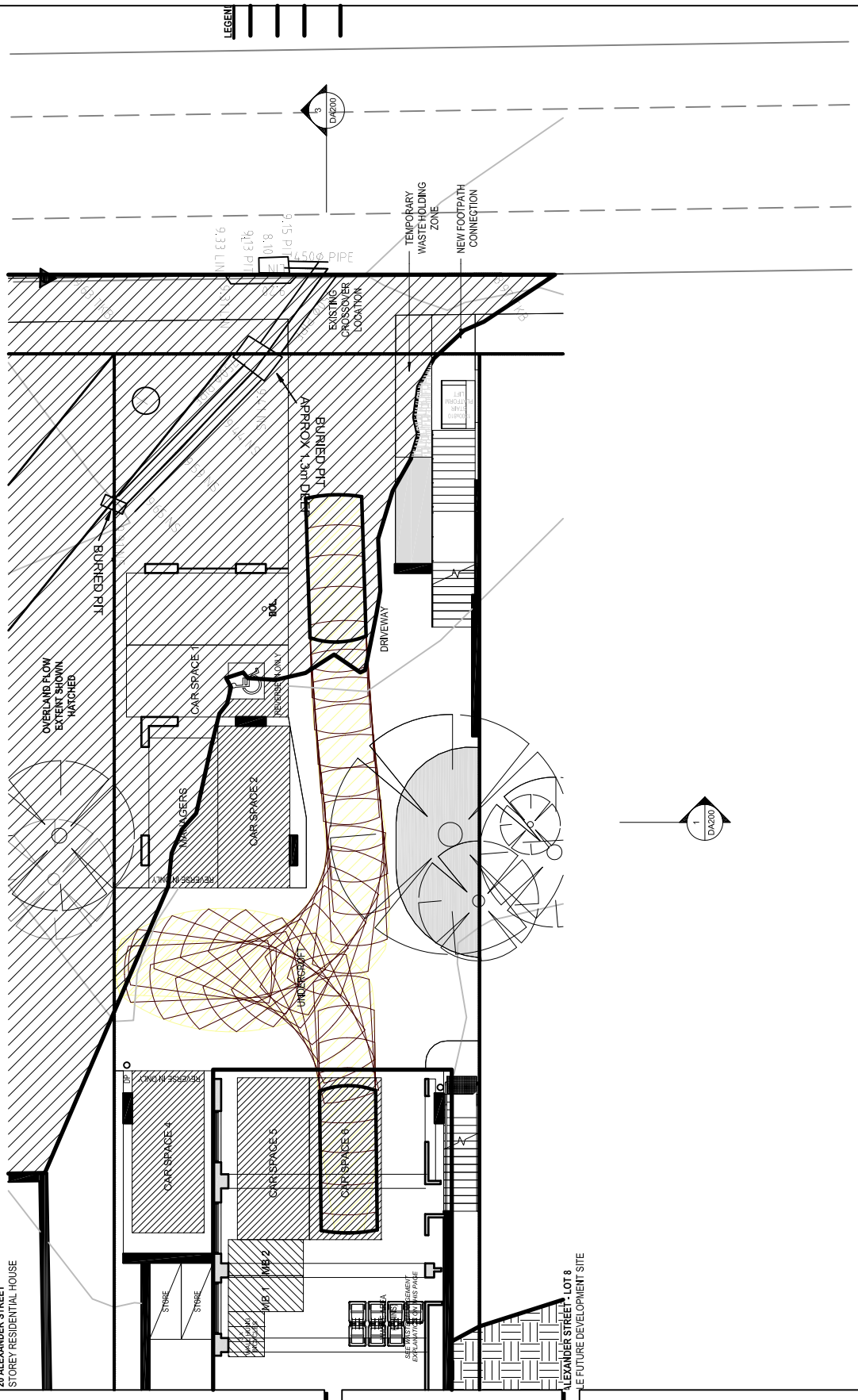
N

SWEPT PATH ANALYSIS OF A 85th PERCENTILE VEHICLE EXITING THE SITE

SP 6



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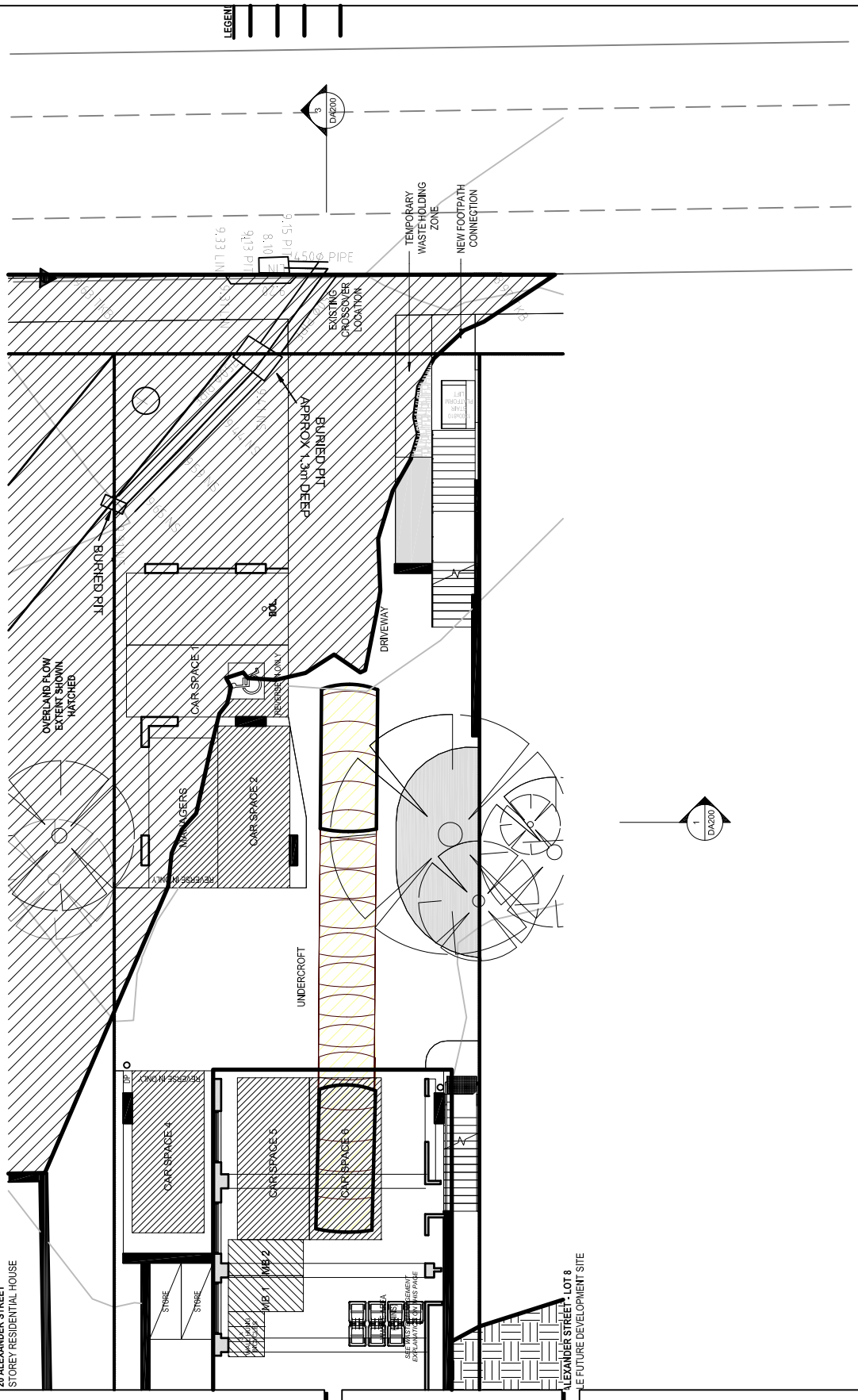
N

SWEPT PATH ANALYSIS OF A 85th PERCENTILE VEHICLE ENTERING THE SITE

SP 7



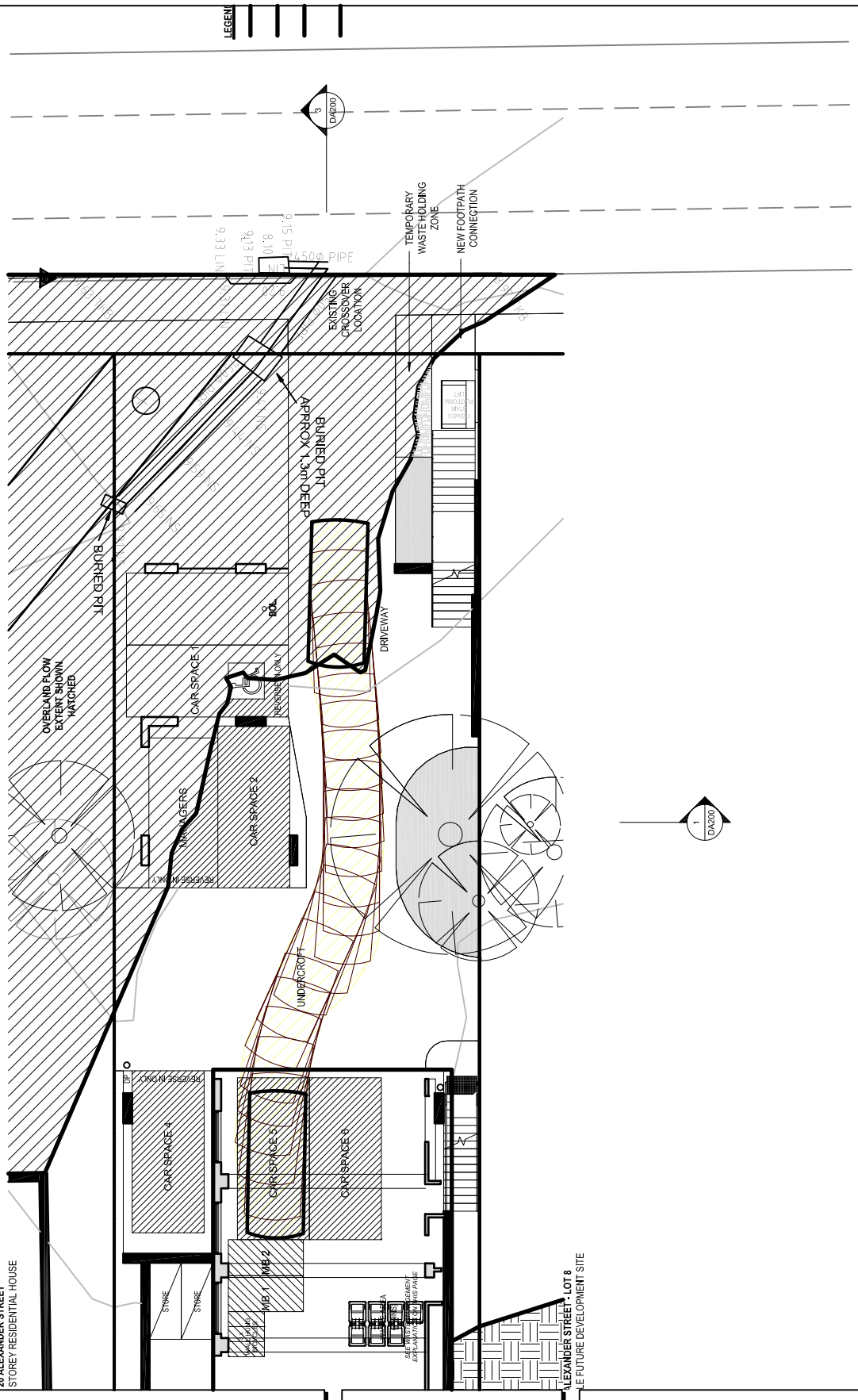
LEGEND

This drawing has been prepared using vehicle modelling computer software AutoTrack V5.00a in conjunction with AutoCAD 2013. The vehicle used is based upon vehicle data provided by Austroads and incorporates a reasonable degree of tolerance. However, it is not possible to account for all vehicle types/characteristics and/or driver ability.

N

SWEPT PATH ANALYSIS OF A 85th PERCENTILE VEHICLE EXITING THE SITE

SP 8



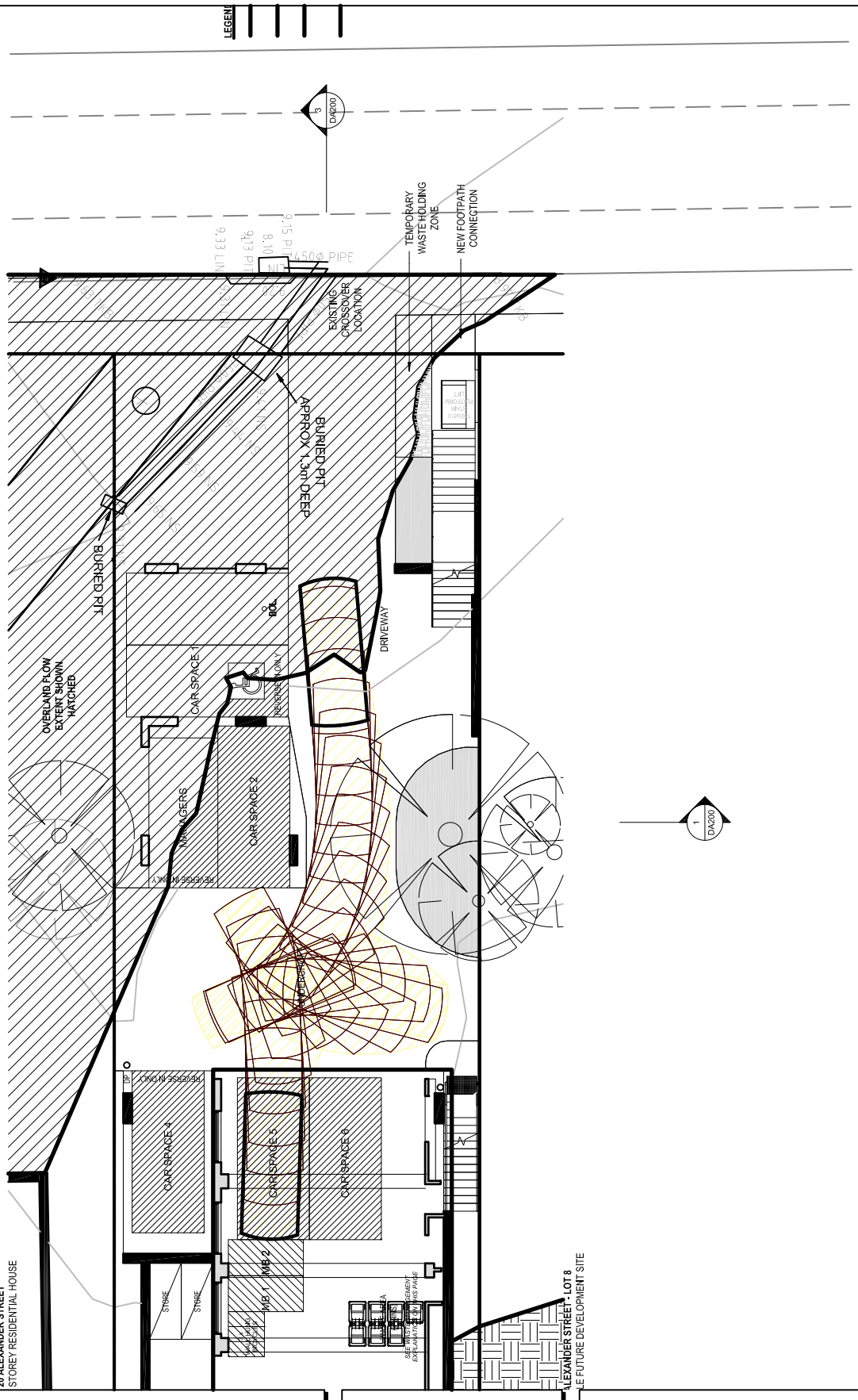
LEGEND

This drawing has been prepared using vehicle modelling computer software AutoTrack V5.00a in conjunction with AutoCAD 2013. The vehicle used is based upon vehicle data provided by Austroads and incorporates a reasonable degree of tolerance. However, it is not possible to account for all vehicle types/characteristics and/or driver ability.

N

SWEPT PATH ANALYSIS OF A 85th PERCENTILE VEHICLE ENTERING THE SITE

SP 9



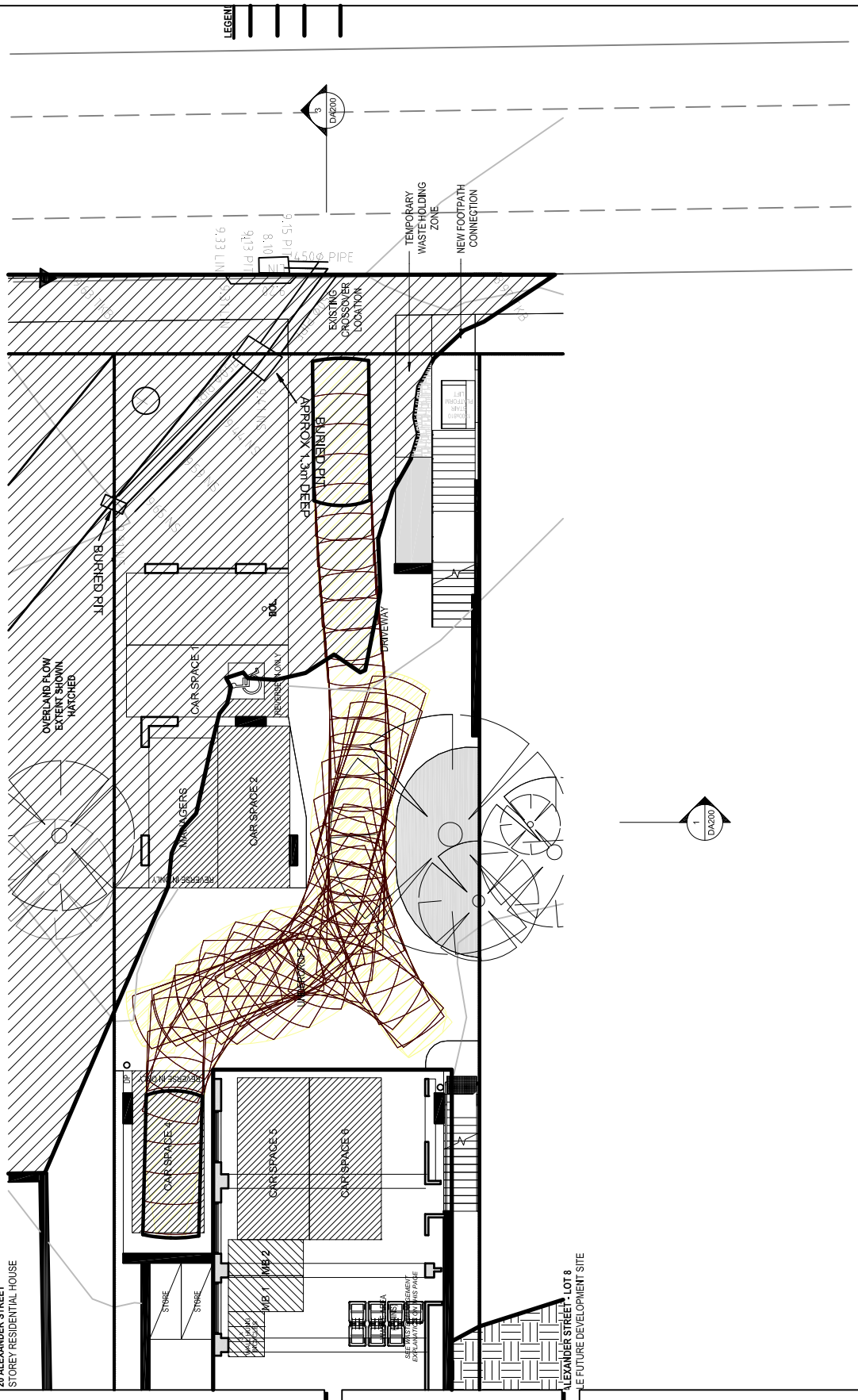
LEGEND

This drawing has been prepared using vehicle modelling computer software AutoTrack V5.00a in conjunction with AutoCAD 2013. The vehicle used is based upon vehicle data provided by Austroads and incorporates a reasonable degree of tolerance. However, it is not possible to account for all vehicle types/characteristics and/or driver ability.

N

SWEPT PATH ANALYSIS OF A 85th PERCENTILE VEHICLE EXITING THE SITE

SP 10



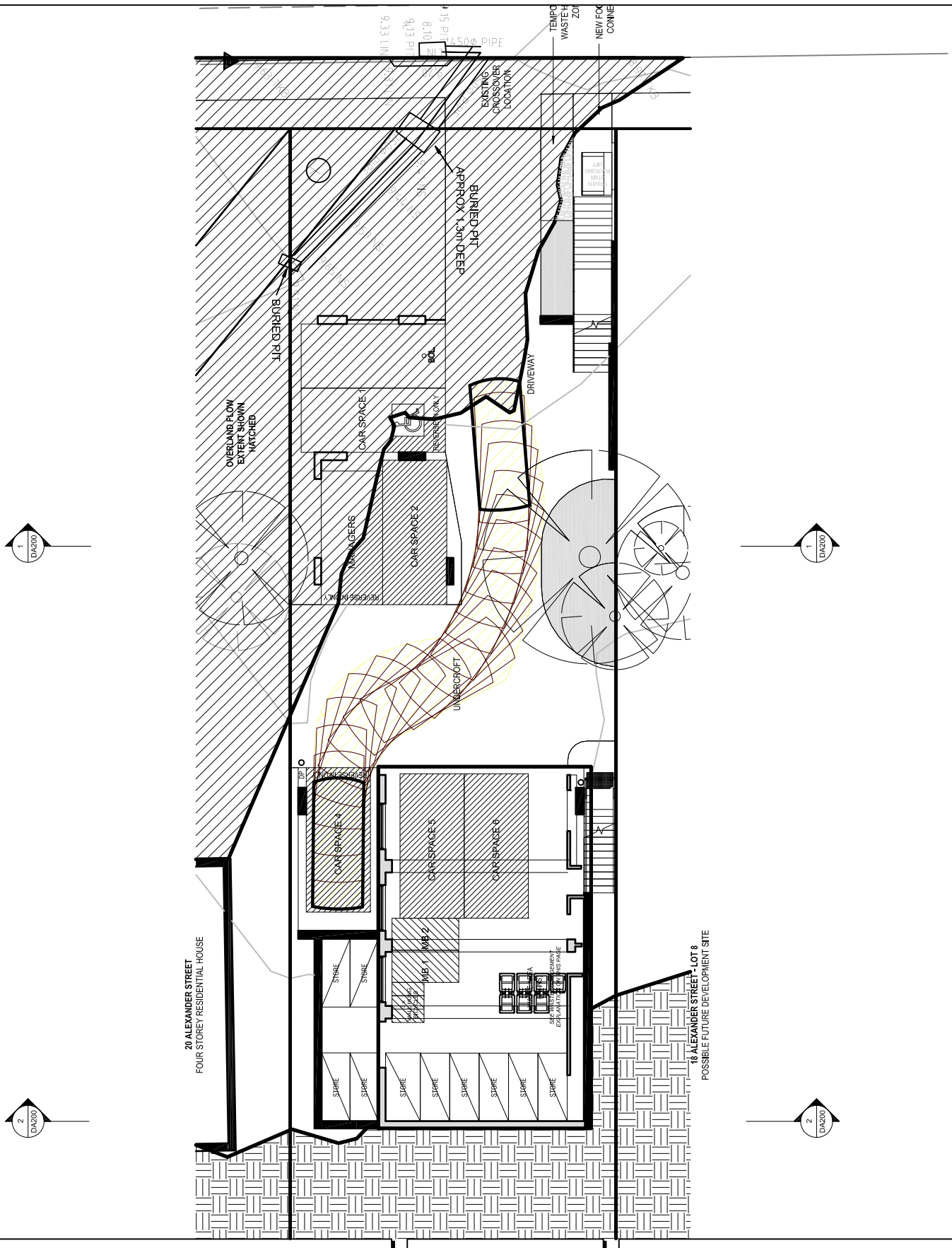
LEGEND

This drawing has been prepared using vehicle modelling computer software AutoTrack V5.00a in conjunction with AutoCAD 2013. The vehicle used is based upon vehicle data provided by Austroads and incorporates a reasonable degree of tolerance. However, it is not possible to account for all vehicle types/characteristics and/or driver ability.

N

SWEPT PATH ANALYSIS OF A 85th PERCENTILE VEHICLE ENTERING THE SITE

SP 11



LEGEND

This drawing has been prepared using vehicle modelling computer software AutoTrack V5.00a in conjunction with AutoCAD 2013. The vehicle used is based upon vehicle data provided by Austroads and incorporates a reasonable degree of tolerance. However, it is not possible to account for all vehicle types/characteristics and/or driver ability.

N

SWEPT PATH ANALYSIS OF A 85th PERCENTILE VEHICLE EXITING THE SITE

SP 12


ttpa