



16 Terry Road, Eastwood – Childcare Centre Transport Impact Assessment

Prepared for:

The Trustee for Y & Z TRD Trust

22 January 2024

The Transport Planning Partnership

16 Terry Road, Eastwood – Childcare Centre Transport Impact Assessment

Client: The Trustee for Y & Z TRD Trust

Version: V02

Date: 22 January 2024

TTPP Reference: 23344

Quality Record


Version	Date	Prepared by	Reviewed by	Approved by	Signature
V01	15/01/24	Charbel Hanna	Ashish Modessa	Jason Rudd	DRAFT
V02	22/01/24	Charbel Hanna	Ashish Modessa	Jason Rudd	

Table of Contents

1	Introduction	1
1.1	Background.....	1
1.2	Structure of the Report.....	1
1.3	References	1
2	Existing Conditions	2
2.1	Site Context	2
2.2	Surrounding Road Network	3
2.3	Public Transport Infrastructure.....	3
2.4	Pedestrian and Cycling Infrastructure	4
3	Proposed Development.....	5
4	Parking Assessment.....	6
4.1	Car Parking.....	6
4.2	Accessible Parking	7
4.3	Motorcycle Parking	7
4.4	Bicycle Parking.....	7
4.5	Loading and Servicing.....	7
4.6	Parking Layout	7
5	Traffic Assessment	9
5.1	Existing Traffic Volumes	9
5.2	Traffic Generation.....	9
5.3	Traffic Distribution and Assignment	9
5.4	Traffic Impact	12
5.4.1	Existing Conditions	12
5.4.2	Post Development Conditions	13
6	Summary and Conclusion	14

Tables

Table 4.1: DCP Car Parking Requirements.....	6
Table 5.1: Traffic Generation	9
Table 5.2: Level of Service Criteria for Intersection Operation	12
Table 5.3: Existing Intersection Operation	13
Table 5.4: Existing + Development Peak Hour Traffic Modelling Results.....	13

Figures

Figure 2.1: Subject Site and the Surrounding Context	2
Figure 2.2: Subject Site	2
Figure 2.3: Bus Stop Locations.....	3
Figure 2.4: Bus Route Map - Route 545	4
Figure 3.1: Proposed Ground Floor Layout.....	5
Figure 4.1: Updated TfNSW Childcare Parking Rates (TEF Consulting, 2015)	6
Figure 4.2: Proposed Car Park Layout	8
Figure 5.1: Existing Traffic Volumes – AM Peak Hour	10
Figure 5.2: Existing Traffic Volumes – PM Peak Hour	10
Figure 5.3: Development Traffic Volumes – AM Peak Hour.....	11
Figure 5.4: Development Traffic Volumes – PM Peak Hour	11

APPENDICES

- A. ARCHITECTURAL PLANS
- B. SITE LAYOUT REVIEW
- C. TRAFFIC SURVEYS
- D. SIDRA OUTPUTS

1 Introduction

1.1 Background

The Trustee for Y & Z TRD Trust is seeking to develop a new childcare centre at 16 Terry Road, Eastwood with capacity for 126 children. The facility will comprise six rooms, outdoor play areas and basement car parking. Access to the subject site is proposed via Terry Road.

A Development Application (DA) is to be lodged with the City of Ryde Council (Council) to seek approval for the proposed development.

The Transport Planning Partnership (TPPP) has prepared this Transport Impact Assessment (TIA) to accompany the DA and assess the traffic and parking implications of the proposed development for submission to Council.

1.2 Structure of the Report

The layout of the report is set out as follows:

- Chapter 2 discusses the existing conditions including a description of the site.
- Chapter 3 provides a brief description of the proposed development.
- Chapter 4 assesses the parking implications and requirements.
- Chapter 5 assesses the traffic generation and its implications.
- Chapter 6 presents the conclusion of the assessment.

1.3 References

In preparing this report, reference has been made, but is not limited to, the following documents:

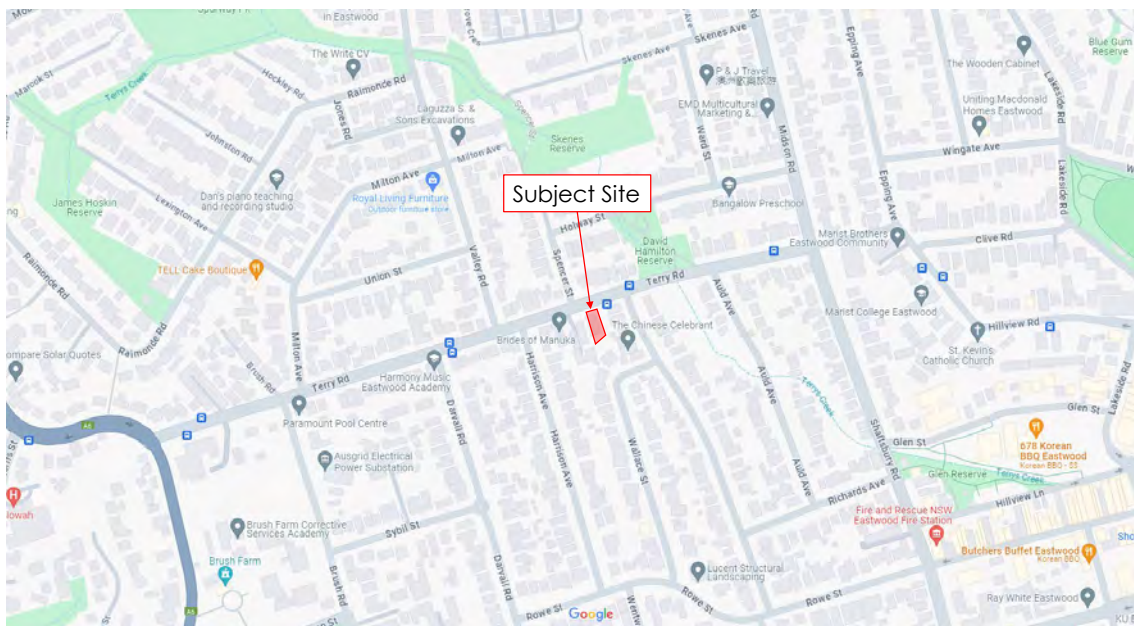
- City of Ryde Development Control Plan (DCP) 2014
- City of Ryde Local Environmental Plan (LEP) 2014
- Australian Standard/ New Zealand Standard, Parking Facilities, Part 1: Off-Street Car Parking AS/NZS2890.1:2004
- Australian Standard, Parking Facilities, Part 3: Bicycle Parking AS2890.3:2015
- Australian Standard, Parking Facilities, Part 6: Off-Street Parking for People with Disabilities AS2890.6:2022
- Building Construction Code 2022 Part D4 Access for people with a disability
- plans for the proposed development prepared by Janssen Designs
- other documents and data as referenced in this report.

2 Existing Conditions

2.1 Site Context

The subject site is located at 16 Terry Road, Eastwood within the City of Ryde Local Government Area. The site has a single frontage of about 24 metres to Terry Road to the north and is in a low-density residential area. The site is currently occupied by a single dwelling. The site location and surrounds are shown in Figure 2.1 and Figure 2.2.

Figure 2.1: Subject Site and the Surrounding Context



Basemap source: Google Maps

Figure 2.2: Subject Site



Basemap Source: Nearthmap, last accessed 24/11/2023.

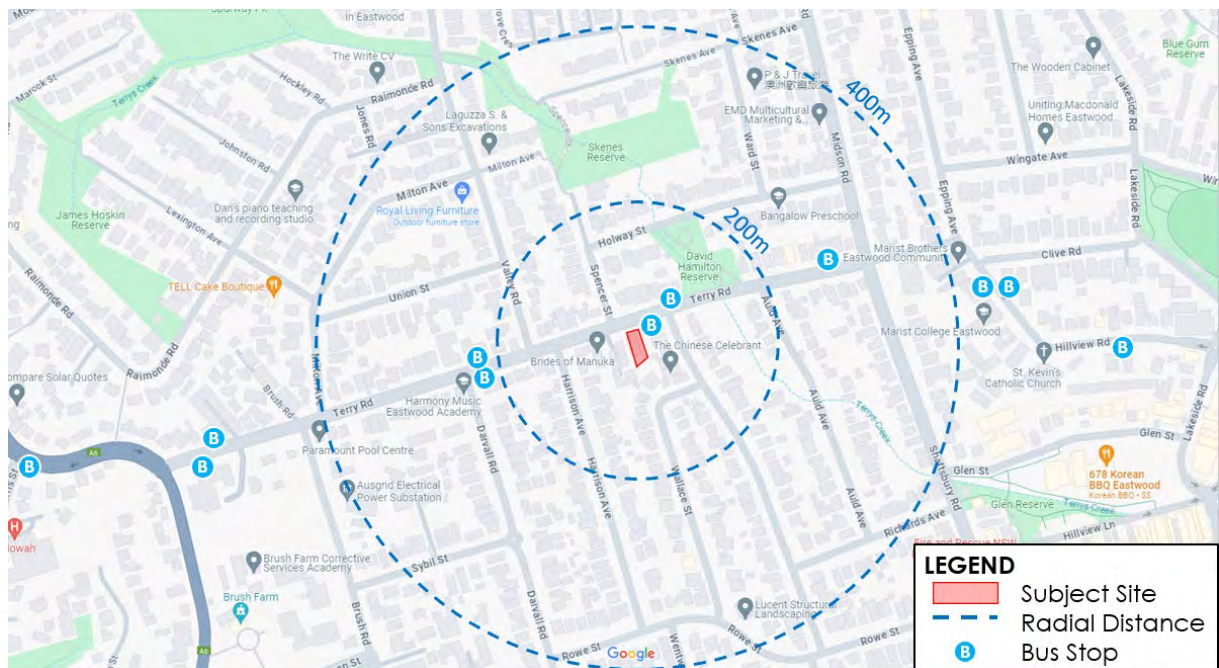
2.2 Surrounding Road Network

Terry Road is a two-lane, two-way road, aligned in an east-west direction that connects the major arterial Marsden Road to Midson Road. It has a posted speed limit of 50km/h and unrestricted parking is permitted on both sides. **Spencer Street** is a two-way local road aligned in the north-south direction. Spencer Street intersects with Terry Road via a priority-controlled T-intersection located adjacent to the site. It has a 50km/h area speed limit and unrestricted parking is permitted on both sides.

2.3 Public Transport Infrastructure

Bus stops are located on both sides of Terry Road. The closest bus stops in each direction are located within 50 metres of the site towards the east, as shown in Figure 2.3.

Figure 2.3: Bus Stop Locations

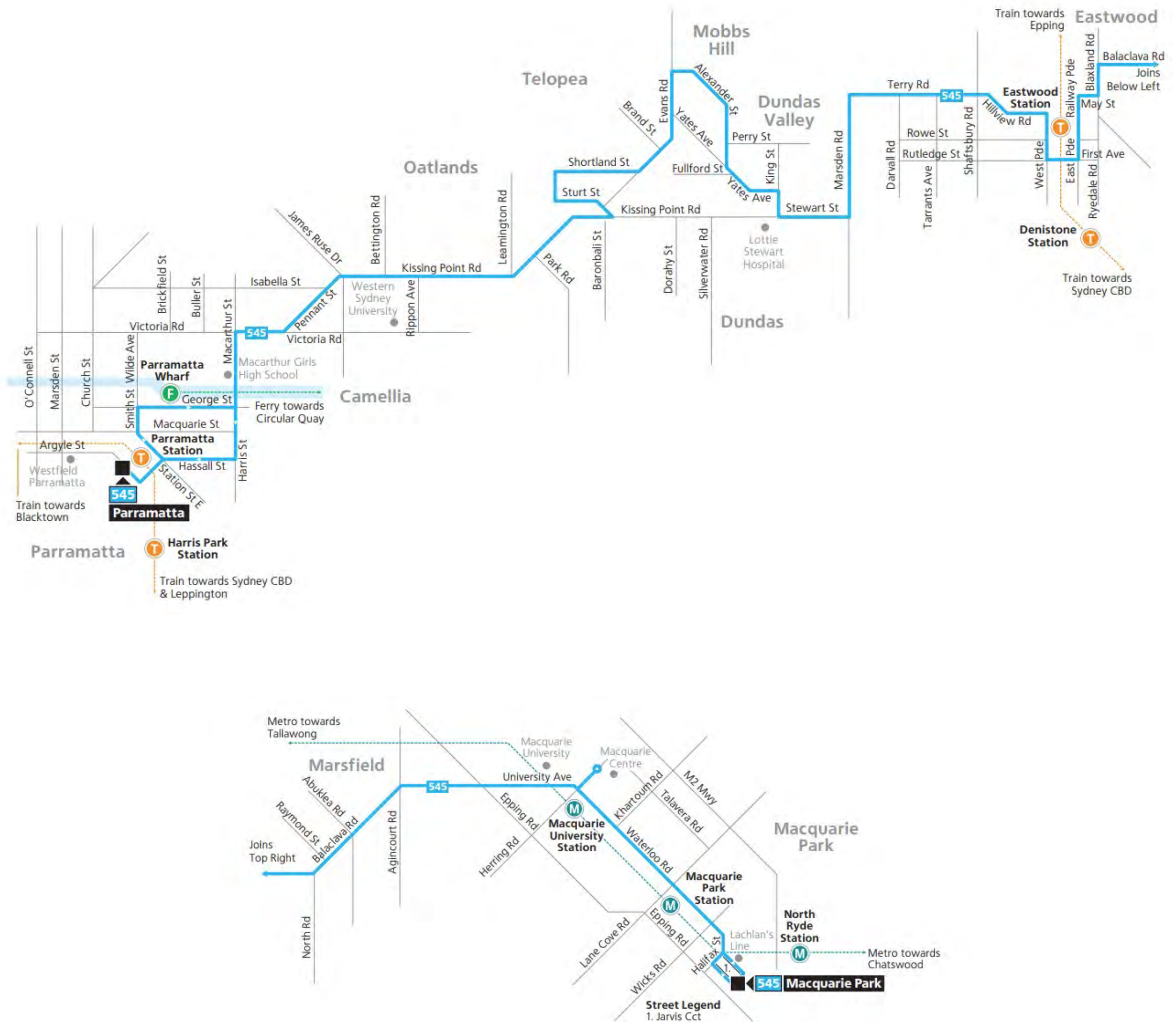


Basemap Source: Google Maps, dated 24/11/2023.

The bus stops are serviced by bus route 545 which links Parramatta to Macquarie Park via Telopea and Eastwood as shown in Figure 2.4. The average service frequency is approximately 15 minutes on weekdays, every 20 minutes on Saturdays, and every 30 minutes on Sundays and public holidays.

The closest train station to the subject site is Eastwood train station, which is located approximately one kilometre (15-minute walk) away. Eastwood train station is serviced by T9 – Northern Line and the average service frequency is 15 minutes.

Figure 2.4: Bus Route Map - Route 545



Source: Transport NSW, last accessed on 24/11/2023.

2.4 Pedestrian and Cycling Infrastructure

Footpaths are provided on both sides of Terry Road and on at least one side of other nearby local roads.

On road bicycle lanes are provided along Terry Road, shared with kerbside parking lanes. Along with a combination of cycle friendly roads, the bicycle route providing east-west connection between Dundas Valley and Eastwood Town Centre.

3 Proposed Development

The proposal involves the demolition of the existing standalone residential dwelling on the site and construction of a two-storey childcare centre development with basement car parking.

The childcare is proposed to accommodate 126 children, with a breakdown by age group provided below:

- 0-2 years old – 16 children
- 2-3 years old – 20 children
- 3-5 years old – 90 children.

There is a requirement for at least 17 staff to be on site at any one time.

The basement car park accommodates 24 car parking spaces, with vehicular and pedestrian access provided via Terry Road. Kerbside waste collection is proposed with a separate path provided between the site frontage and bin storage room on the west side of the site for bins to be wheeled out for collection.

The proposed ground floor layout is shown in Figure 3.1, with the architectural plans provided in Appendix A.

Figure 3.1: Proposed Ground Floor Layout



Source: Janssen Design – drawing no. 10258-A007 dated 1 September 2023

4 Parking Assessment

4.1 Car Parking

The City of Ryde DCP 2014 stipulates car parking requirements for different land uses. According to Ryde DCP 2014, a childcare centre is required to provide a minimum of one space per two staff employed and one space per eight children.

The car parking requirements based on Ryde DCP 2014 is presented in Table 4.1.

Table 4.1: DCP Car Parking Requirements

Component	Yield	DCP Parking Rates	DCP Required Parking
Staff	17	1 space per 2 staff	9 spaces
Children	126	1 space per 8 children	16 spaces
TOTAL			25 spaces

Based on the assessment above, the proposed development requires a minimum of 25 car parking spaces including 9 staff and 16 visitor spaces to comply with Ryde DCP 2014.

The proposed development includes 24 car spaces, including 10 staff spaces and 14 visitor spaces. The provision is considered appropriate when accounting for the sites proximity to bus stops that are serviced by a bus route with 15-minute frequency linking the site to Parramatta, Eastwood and Macquarie Park. In addition, the site is in a primarily low-density area with unrestricted on-street parking and limited competing demand based on observations of current demand. Therefore, any minor additional demand generated by the site that would occur during the drop-off and pick-up peak periods will have limited impacts on surroundings users.

Furthermore, it is noted that Transport for NSW commissioned updated traffic generation and parking surveys¹ in 2015 that illustrated that car parking demand reduces as the childcare centre size (i.e. number of children) increases, as extracted in Figure 4.1. The rates include both visitor/parent and staff car parking. With the proposal being for a larger centre than surveyed by Transport for NSW, anticipated demand could theoretically be one space per six children if not lower.

Figure 4.1: Updated TfNSW Childcare Parking Rates (TEF Consulting, 2015)

It is noted that the current rate of parking provision in the RMS (2002) Guide, based on 1992 data, is 1 parking space per 4 children. For comparison with this rate, the Peak Parking Accumulation formula from Table 4.2 was used for a range of numbers of children places. The resulting calculations indicate the following average rates:

- Centres with 20 to 35 children – 1 space per 4 children
- Centres with 40 to 65 children – 1 space per 5 children
- Centres with 70 to 100 children – 1 space per 6 children

¹TEF Consulting, Roads and Maritime Services, Trip Generation Surveys – Child Care Centre, August 2015

4.2 Accessible Parking

The National Construction Code 2022 (NCC 2022) specifies accessible parking requirements for various developments. Specifically, for Class 9b buildings, which includes childcare centres, a provision of one accessible space per 100 parking spaces or part thereof is required. The development provides one accessible space and therefore satisfies this accessible parking requirement.

4.3 Motorcycle Parking

Ryde DCP 2014 does not stipulate any motorcycle parking requirements for childcare centres. No motorcycle parking is proposed.

4.4 Bicycle Parking

Ryde DCP 2014 states that where the floor space exceeds 600 square metres gross floor area, bicycle parking is to be provided at a rate of 10 percent of the required car spaces. As the development requires a total of 25 car parking spaces, at least three bicycle parking spaces are required to satisfy the DCP requirement. There are five bicycle parking spaces provided in the basement car park and therefore satisfies this bicycle parking requirement.

4.5 Loading and Servicing

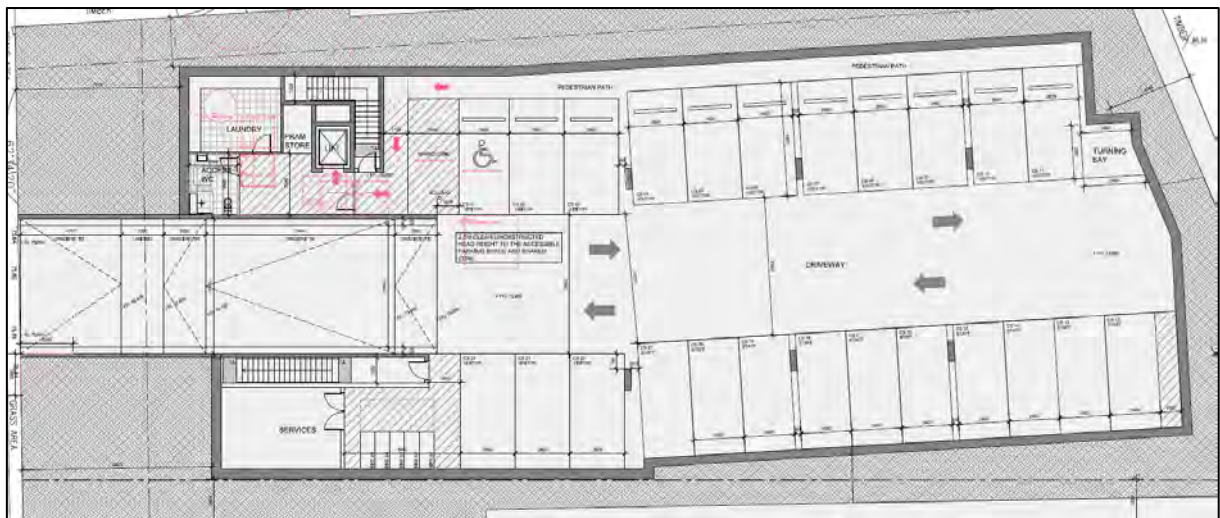
Ryde DCP 2014 states that childcare centres in a residential area are not to provide on-site access for waste collection vehicles. Kerbside waste collection is proposed with a separate path provided between the site frontage and bin storage room on the west side of the site for bins to be wheeled to the kerbside for collection.

The childcare centre will also receive deliveries, such as groceries. Courier vans (B99 vehicles) can be sufficiently accommodated within the basement car park outside of the centre's peak traffic periods. Any deliveries requiring trucks will occur using available on-street parking in a similar arrangement to waste collection.

4.6 Parking Layout

The proposed car park layout is shown in Figure 4.2 and has generally been designed to comply with the requirements set out in the relevant Australian Standards for car parking facilities, namely AS2890.1:2004, AS2890.3:2015, and AS2890.6:2009.

Figure 4.2: Proposed Car Park Layout



Source: Janssen Design – drawing no. 10258-A006 dated 1 September 2023

According to AS2890.1:2004, the childcare centre, which comprises staff parking and short-term visitor parking, falls under Class 3 for visitors and Class 1A for staff. Class 3 car parking spaces are to be a minimum of 2.6m wide and 5.4m long with a 5.8m aisle width. Class 1A car parking spaces are to be a minimum of 2.4m wide and 5.4m long with a minimum 5.8m aisle width.

All pick-up / drop-off spaces (visitor car spaces) will be provided as 2.6m wide and 5.4m long and all staff parking spaces will be provided as 2.4m wide and 5.4m long, which is compliant with the AS2890 requirements. A minimum aisle width of 7.2m will be provided for the car park, which is also compliant with the AS2890 requirement.

The accessible parking space has also been designed in accordance with AS2890.6:2009, with a 2.4m wide and 5.4m long space, and an adjoining 2.4m wide and 5.4m long shared zone with bollard.

The driveway has been designed to provide flood mitigation with an initial 1:8 upgrade required from the property boundary to a 2.0m flat section then downgrades provided thereafter into the basement. A 'Stop' sign and linemarking along with a 'Watch for Pedestrian' sign are proposed for vehicles exiting the site to look out for pedestrians along the footpath of the frontage road. This is considered an acceptable as the 24-space car park is to be primarily accessed by familiar users (i.e. staff and parents) and on a daily/ weekly basis.

Swept path analysis has been undertaken and provided in Appendix B, demonstrating vehicles entering and exiting the site in a forward direction via the proposed driveway.

5 Traffic Assessment

5.1 Existing Traffic Volumes

TTPP completed traffic movement counts on Thursday 19th of October 2023 at Terry Road signalised intersections with Marsden Road and Midson Road/ Shaftsbury Road during the weekday AM and PM peak periods. The weekday peak hours were observed to be 8:00am to 9:00am and 5:00pm to 6:00pm in the morning and afternoon respectively. The existing traffic volumes during the peak hours are summarised in Figure 5.1 and Figure 5.2, with full survey results provided in Appendix C.

5.2 Traffic Generation

The TfNSW Guide to Traffic Generating Developments 2002 (Table 3.6) specifies traffic generation rates for childcare centres during the morning and evening road network peak hours. Table 5.1 specifies the expected traffic generation of the proposal.

Table 5.1: Traffic Generation

Number of Children	Weekday AM Trip Rate	Weekday PM Trip Rate	Weekday AM Trip Generation	Weekday PM Trip Generation
126	0.8 vehicle trips per child	0.7 vehicle trips per child	101 vehicles per hour	88 vehicles per hour

Table 5.1 suggests that the proposed development is expected to generate 101 and 88 two-way vehicle trips per hour during the weekday AM and PM peak hours, respectively.

5.3 Traffic Distribution and Assignment

The directional distribution and assignment of traffic generated by the proposed development will be influenced by several factors, including the:

- configuration of the arterial road network in the immediate near the site
- existing operation of intersections providing access between the local and arterial road network
- distribution of households near the site
- likely distribution of employee's residences in relation to the site
- configuration of access points to the site.

Having consideration to the above, Figure 5.3 and Figure 5.4 illustrate the additional development traffic movements at the study intersection near the site.

Figure 5.1: Existing Traffic Volumes – AM Peak Hour

Marsden Rd		Midson Rd						Terry Rd			
		964 ↓	199 ↘			69 ↓	336 →	109 ↙	171 ↘	386 ↓	117 ↘
544 ↑	406 ↘		187 ↘							40 ↘	
			350 ↘			48 ↘	125 ↑	0 ↘		236 ↘	54 ↘
Marsden Rd		Midson Rd						Shaftsbury Rd			

Figure 5.2: Existing Traffic Volumes – PM Peak Hour

Marsden Rd		Midson Rd						Terry Rd			
		774 ↓	156 ↘			127 ↓	194 →	82 ↙	158 ↘	250 ↓	78 ↘
933 ↑	295 ↘		337 ↘							113 ↘	
			317 ↘			142 ↘	349 ↑	0 ↘		257 ↘	14 ↘
Marsden Rd		Midson Rd						Shaftsbury Rd			

Figure 5.3: Development Traffic Volumes – AM Peak Hour



Figure 5.4: Development Traffic Volumes – PM Peak Hour



5.4 Traffic Impact

The existing operation of the study intersections have been assessed using SIDRA Intersection, a computer-based modelling package which assesses intersection performance under prevailing traffic conditions.

Level of service (LoS) is directly related to the delays experienced by traffic traversing the intersection. Level of service indicators range from A (indicating good intersection operation) to F (indicating over-saturated conditions with long delays and queues). LoS D is the long-term desirable level of service, particularly for intersections along major arterial roads. A full breakdown of the performance criteria is set out in Table 5.2.

Table 5.2: Level of Service Criteria for Intersection Operation

Level of Service	Average Delay (seconds per vehicle)	Traffic Signals, Roundabout	Give Way and Stop Signs
A	Less than 14	good operation	good operation
B	15 to 28	good with acceptable delays and spare capacity	acceptable delays and spare capacity
C	29 to 42	satisfactory	satisfactory, but accident study required
D	43 to 56	operating near capacity	near capacity and accident study required
E	57 to 70	at capacity At signals, incidents will cause excessive delays.	at capacity, requires other control mode
F	Greater than 71	unsatisfactory with excessive queuing	unsatisfactory with excessive queuing; requires other control mode

5.4.1 Existing Conditions

Nearmap aerial imagery has been used to code the intersection layout and geometry. The TCS signal plans were also used for geometric details of the study intersections including the gradients, layout and lane widths. They also provide details of the phasing arrangements and additional information about how the intersection operates.

The model was calibrated with the use of qualitative queue length data and signal timing data obtained via video footage and site inspections. A minimum of 10 full cycles have been taken during the peak 15-min period of the AM and PM peak hours to determine the frequency and time for each phase in a cycle. The modelled queue lengths have been validated against the surveyed queues undertaken on the same day as the intersection counts.

A summary of the weekday AM and PM peak hour intersection operations are summarised in Table 5.3, with full results presented in Appendix D.

Table 5.3: Existing Intersection Operation

Intersection	Control	Weekday AM		Weekday PM	
		Ave. Delay	LoS	Ave. Delay	LoS
Terry Rd / Marsden Rd	Signal	33	C	48	D
Terry Rd / Shaftsbury Rd / Midson Rd	Signal	37	C	34	C

Table 5.3 indicates that the study intersections near the site currently operate satisfactorily during the weekday peak periods (LoS C or better), except for the Terry Road / Marsden Road intersection which is operating near capacity (LoS D) during the weekday PM peak hour which is an accepted operation given Marsden Road is a major arterial road.

5.4.2 Post Development Conditions

As discussed in Section 5.1, the proposed development is expected to generate an additional 101 and 88 vehicle movements in the weekday AM and PM peak hours.

Table 5.4 presents a summary of the anticipated operation of the study intersections following the development of the site, with full results presented in Appendix D.

Table 5.4: Existing + Development Peak Hour Traffic Modelling Results

Intersection	Control	Weekday AM		Weekday PM	
		Ave. Delay	LoS	Ave. Delay	LoS
Terry Rd / Marsden Rd	Signal	38	C	51	D
Terry Rd / Shaftsbury Rd / Midson Rd	Signal	34	C	36	C

Table 5.4 illustrates that the study intersections continue to operate at the same Level of Service as existing conditions with the additional traffic (i.e., LOS D or better).

SIDRA modelling of the site access was also completed which suggests that it will operate satisfactorily (i.e. LOS C or better), with 95th percentile queuing within the site expected to be less than a vehicle. The site access modelling also suggests there will be minimal delays for vehicles turning right into the site, with 95th percentile queuing being less than a vehicle. Therefore, such movements are not expected to have any notable impact to the operation of the adjacent Terry Road/ Spencer Street intersection.

Therefore, the development proposal is not expected to comprise the safety and operation of the surrounding road network

6 Summary and Conclusion

This transport impact assessment relates to a proposed childcare centre at 16 Terry Road, Eastwood. The key findings from this assessment are provided below:

- The proposed development comprises the construction of a two-storey childcare centre with one level of basement car park.
- The childcare centre is expected to enrol up to 126 children, ranging from under 1 year to 5 years, with an expected staff number of 17.
- The proposed basement car park will be accessed via a new two-way driveway to/ from Terry Road. Vehicle swept path shows the proposed driveway can accommodate vehicles entering and exiting the site in a forward direction, without conflicts.
- According to Ryde DCP 2014, 16 visitor spaces and 9 staff car spaces would be required (a total of 25 car parking spaces).
- It is proposed to provide 24 car parking spaces, including 10 staff spaces and 14 visitor spaces. This is considered appropriate when accounting for proximity to frequent bus services to key destinations, location in a primarily low-density residential area with limited competing demand and not to mention the findings of TfNSW's updated traffic generation and parking study for childcare that car parking demand reduces as the childcare centre size (i.e. number of children) increases.
- Kerbside waste collection is proposed with a separate path provided between the site frontage and bin storage room on the west side of the site for bins to be wheeled to the kerbside for collection.
- The proposed car park layout has been generally designed in accordance with the requirements of the AS2890 series.
- The proposed development is expected to generate 101 vehicle trips in the weekday AM peak period and 88 vehicle trips in the weekday PM peak period.
- Intersection modelling completed suggests that development traffic is not expected to comprise the safety and operation of the surrounding road network.

Overall, the proposal development can be supported from a traffic and parking perspective.

Appendix A

Architectural Plans

NOTE: ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH BCA, SAA, COUNCILS CONDITIONS OF CONSENT, COPYRIGHT. DO NOT SCALE OFF ARCHITECTURAL DRAWINGS. THESE NOTES MUST BE READ IN CONJUNCTION WITH CONDITIONS OF CONSENT FOR ADDITIONAL DETAILS ON APPLIANCES, FC ITEMS & POWER SIZES. SHOW ON PLAN ARE INSTEAD DIMENSIONS SHOWER SCREENS TO BE LIMITED TO THE INSIDE OF HOBS BULKHEADS MAY BE REQUIRED TO ACCOMMODATE RANGE UNITS & STEEL BEAMS POSITION TO BE DETERMINED ON SITE. USE FIGURED DIMENSIONS ONLY. DO NOT SCALE. FINISHED GROUND LEVELS ON PLANS ARE SUBJECT TO SITE CONDITIONS. ALL CALCULATED DIMENSIONS ARE SUBJECT TO SITE CONDITIONS. CONSTRUCTION & NO ALLOWANCE HAS BEEN MADE FOR SHINKAGE. ALL DIMENSIONS TO THE TUBED POSITION FRONT GARDEN TAP ON METER ENERGY SAVING DEVICE. RATED WATER CONSERVATION DEVICES INCLUDE RAINWATER TANKS, SHOWER HEADS, WATER TAP FLOW REGULATORS, DUAL FLUSH TOILET CISTERNS & COMPLIANT HOT WATER SYSTEMS WITH AN MINIMUM GREEN HOUSE SCORE OF 3.33% ARE TO BE USED IN THE DEVELOPMENT. OCCUPANTS ARE ENCOURAGED TO USE RATED ENERGY SAVING DEVICES WITH FRONT LOADING WHERE POSSIBLE. OWNER/BUILDER MUST READ ALL PLANS IN CONJUNCTION WITH THE ABOVE REPORT.

DO NOT SCALE OFF ARCHITECTURAL DRAWINGS

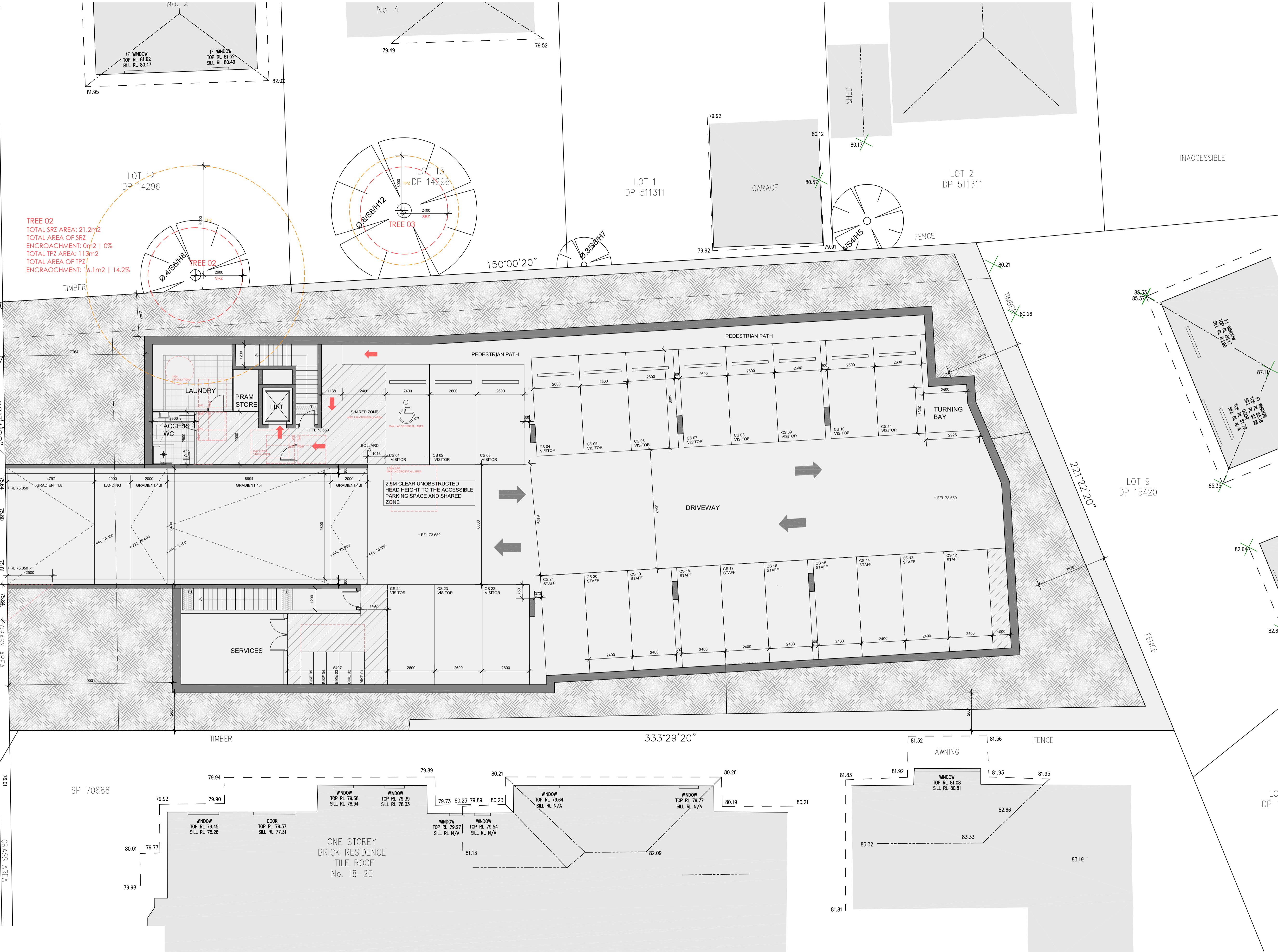
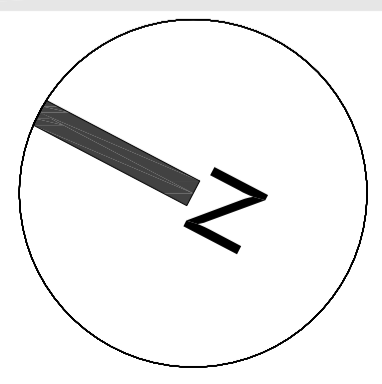
ROAD



**JANSSEN
DESIGNS**

info@janssengdesigns.com.au | PO Box 41, Kenthurst 2156 | m: 0423 216 636
Nominated Architect: Jake Janssen NSW ARB 11575

BASEMENT PLAN -
1:100 @ A1



AMENDMENTS		
ISSUE	DESCRIPTION	DATE

Project Title:
Proposed Child Care
Centre

DRAWING TITLE:
Basement Plan

ADDRESS:
16 Terry Road, Eastwood

CLIENT DETAILS:
Zhong

LOCAL GOVERNMENT AREA:
Ryde Council

Issue For: DA	Issue: A
Date: 1.9.2023	Scale: 1:100
Drawing #: A006	Project #: 10258

NOTE: ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH BCA, SAA, COUNCILS CONDITIONS COPYRIGHT. DO NOT SCALE OFF ARCHITECTURAL DRAWINGS. THESE NOTES MUST BE READ IN CONJUNCTION WITH ALL OTHER NOTES. SELECTION FOR ADDITIONAL DETAILS ON APPLIANCES, FC ITEMS & SHOWER SEALS SHOWN ON PLAN ARE IN THE HOBBY DIMENSIONS SHOWER SCREENS TO BE USED IN THE DEVELOPMENT. OCCUPANTS ARE ENCOURAGED TO USE RATED WATER CONSERVATION DEVICES INCLUDE RAINWATER TANKS, SHOWER HEADS, WATER SAVING FLOW REGULATORS, DUAL FLUSH TOILET CISTERNS, COMPLIANT HOT WATER SYSTEMS WITH AN MINIMUM GREEN HOUSE SCORE OF 3.33 ARE TO BE USED IN THE DEVELOPMENT. OCCUPANTS ARE ENCOURAGED TO USE RATED DRY WASHING MACHINES WITH FRONT LOADING WHERE POSSIBLE. OWNER/BUILDER MUST READ ALL PLANS IN CONJUNCTION WITH THE ABOVE REPORT.

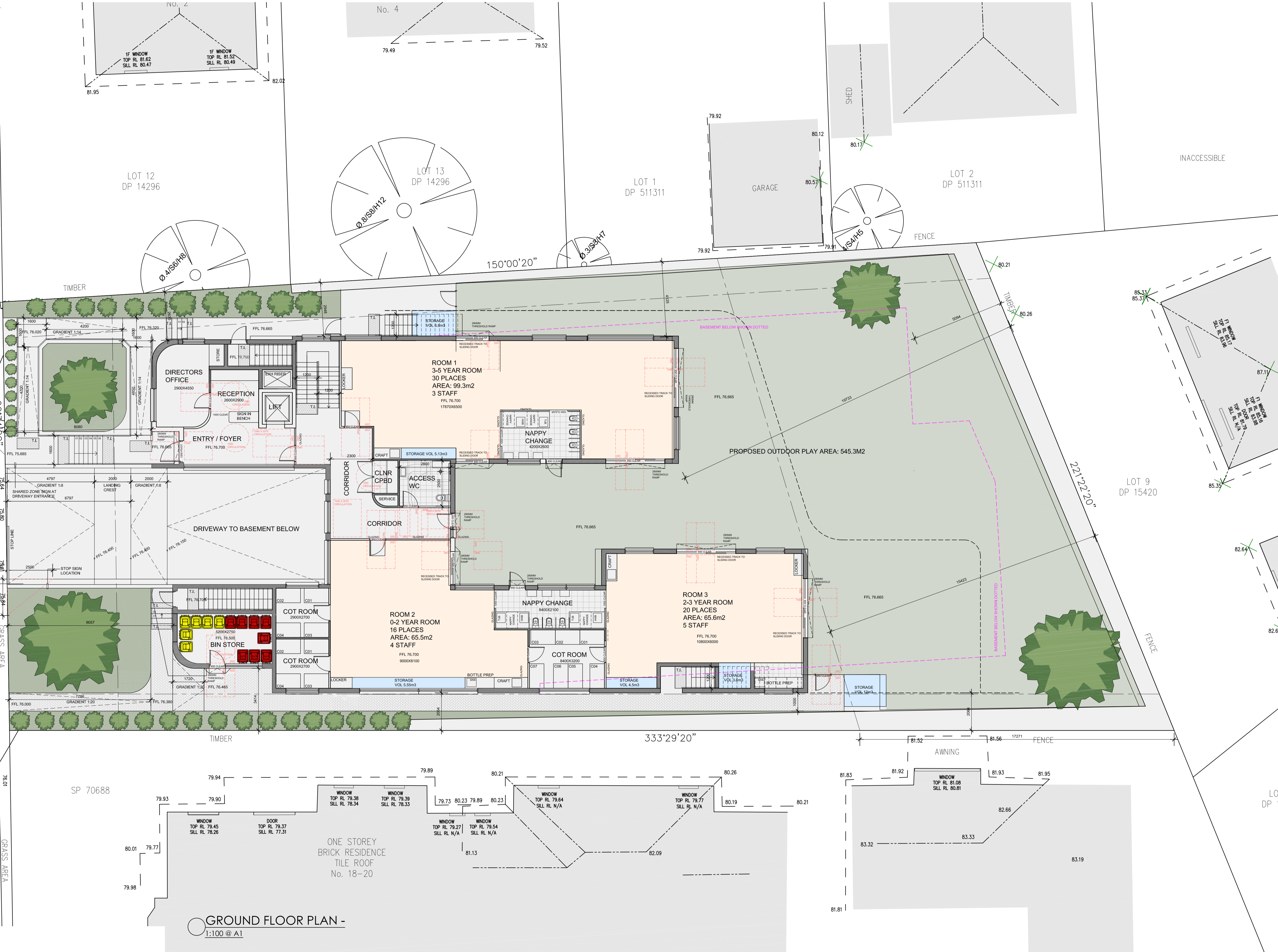
DO NOT SCALE OFF ARCHITECTURAL DRAWINGS

ROAD

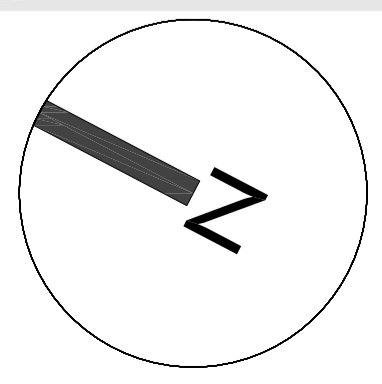


**JANSSEN
DESIGNS**

info@janssengdesigns.com.au | PO Box 41, Kenthurst 2156 | m: 0423 216 636
Nominated Architect: Jake Janssen NSW ARB 11575



GROUND FLOOR PLAN -
1:100 @ A1



AMENDMENTS		
ISSUE	DESCRIPTION	DATE

Project Title:
Proposed Child Care
Centre

DRAWING TITLE:
Ground Floor Plan

ADDRESS:
16 Terry Road, Eastwood

CLIENT DETAILS:
Zhong

LOCAL GOVERNMENT AREA:
Ryde Council

Issue For: DA
Issue: A

Date: 1.9.2023
Scale: 1:100
Drawing #: A007
Project #: 10258

NOTE: ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH BCA, LOCAL COUNCILS CONDITIONS, COPYRIGHT. DO NOT SCALE OFF ARCHITECTURAL DRAWINGS. THESE NOTES MUST BE READ IN CONJUNCTION WITH CONDITIONS. SELECTION FOR ADDITIONAL DETAILS ON APPLIANCES, FC ITEMS & SHOWER SCREENS SHOWN ON PLAN ARE IN THE HOBBY DIMENSIONS. SHOWER SCREENS TO BE INSTALLED INSIDE OF HOBBY BULKHEADS MAY BE REQUIRED TO ACCOMMODATE RANGE HOB UNITS. A STEEL BEAMS POSITION TO BE DETERMINED ON SITE. USE FIGURED DIMENSIONS ONLY. DO NOT SCALE. FINISHED GROUND LEVELS ON PLANS ARE TO BE USED DURING CONSTRUCTION & NO ALLOWANCE HAS BEEN MADE FOR SINKING OR RISING. POSITION OF ELECTRICAL METERS TO BE DETERMINED ON SITE IN ACCORDANCE TO THE TUBED POSITION FRONT GARDEN TAP ON METER ENERGY SAVING DEVICE. RATED WATER CONSERVATION DEVICES INCLUDE RAINWATER TANKS, SHOWER HEADS, WATER TAP FLOW REGULATORS, DUAL FLUSH TOILET CISTERNS & COMPLIANT HOT WATER SYSTEMS WITH AN ENERGY GREEN HOUSE SCORE OF 3.33 ARE TO BE USED IN THE DEVELOPMENT. OCCUPANTS ARE ENCOURAGED TO USE RATED DRY WASHING MACHINES WITH FRONT LOADING WHERE POSSIBLE. OWNER/BUILDER MUST READ ALL PLANS IN CONJUNCTION WITH THE ABOVE REPORT.

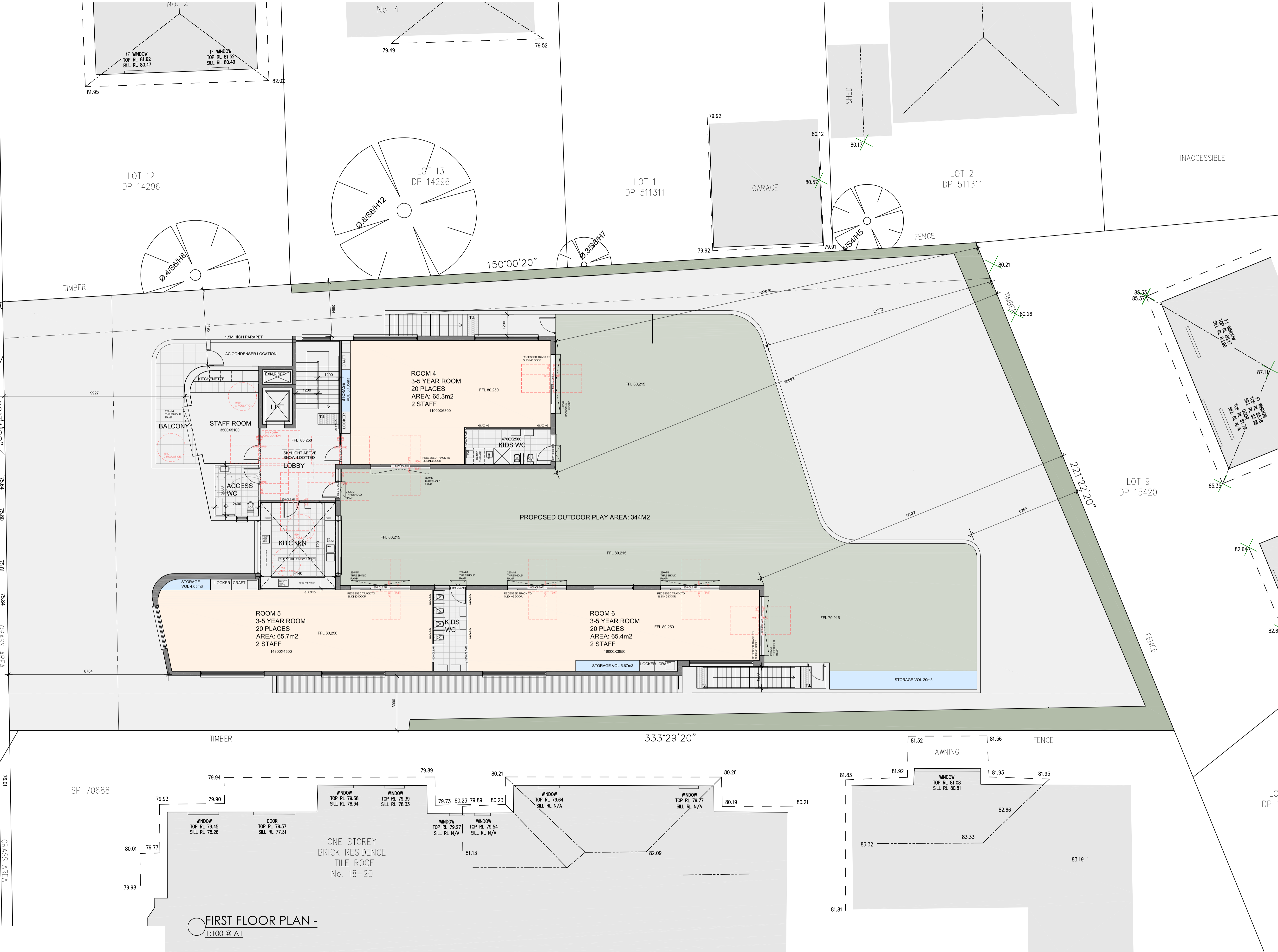
DO NOT SCALE OFF ARCHITECTURAL DRAWINGS

ROAD

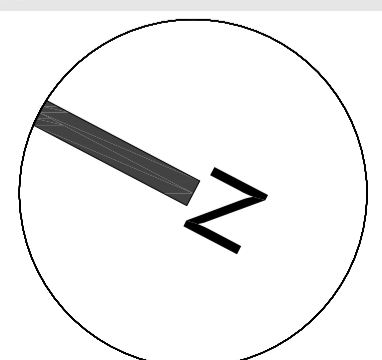


**JANSSEN
DESIGNS**

info@janssengdesigns.com.au | PO Box 41, Kenthurst 2156 | m: 0423 216 636
Nominated Architect: Jake Janssen NSW ARB 11575



FIRST FLOOR PLAN -
1:100 @ A1



AMENDMENTS		
ISSUE	DESCRIPTION	DATE

Project Title:
Proposed Child Care
Centre

DRAWING TITLE:
First Floor Plan

ADDRESS:
16 Terry Road, Eastwood

CLIENT DETAILS:
Zhong

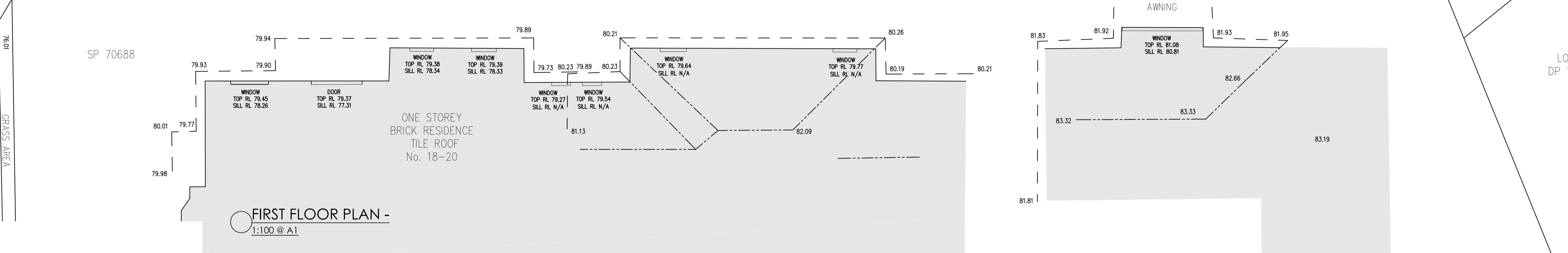
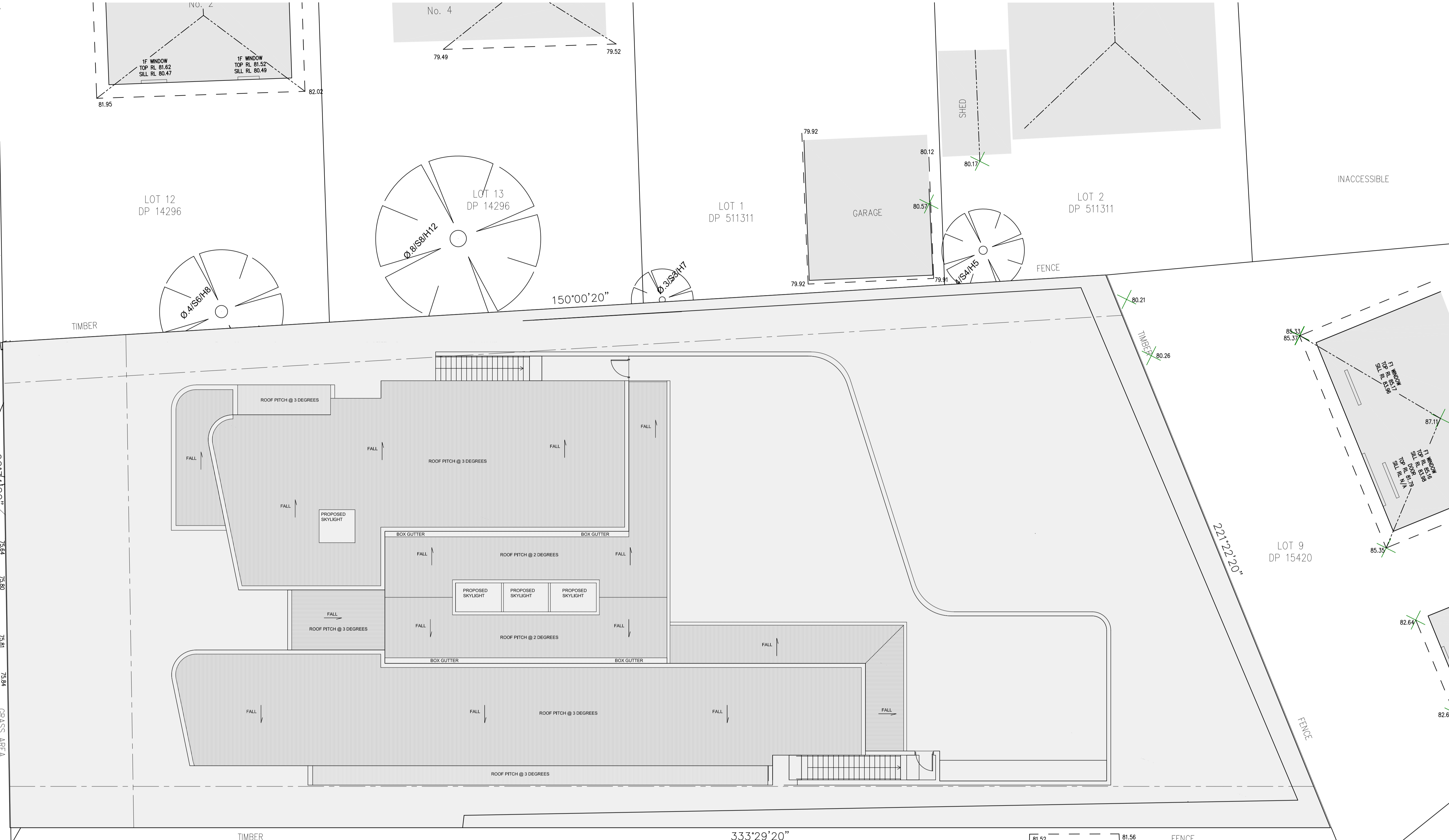
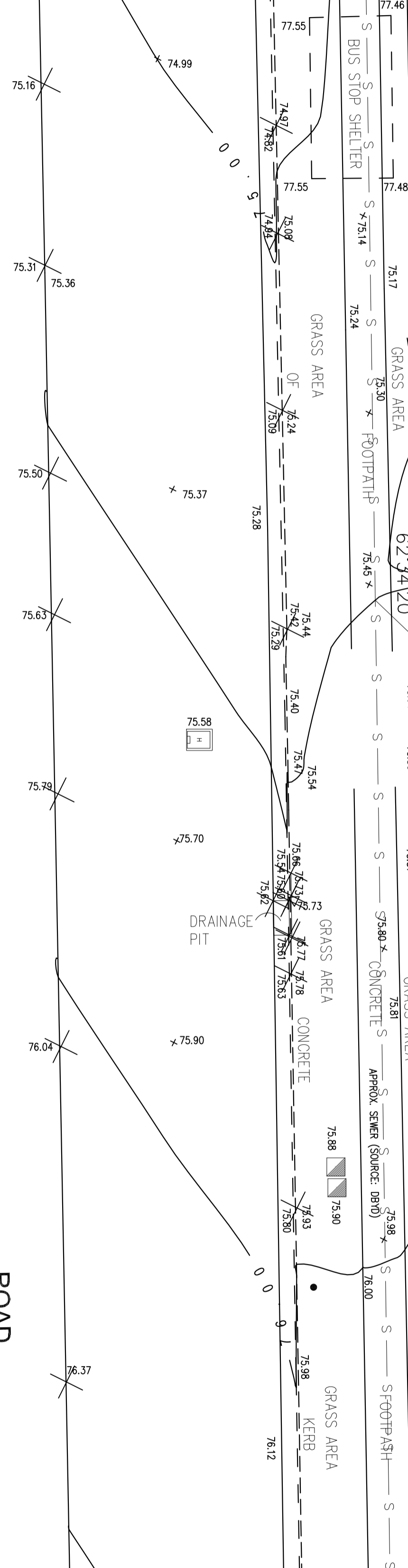
LOCAL GOVERNMENT AREA:
Ryde Council

Issue For: DA
Issue: A

Date: 1.7.2023
Scale: 1:100
Drawing #: A008
Project #: 10258

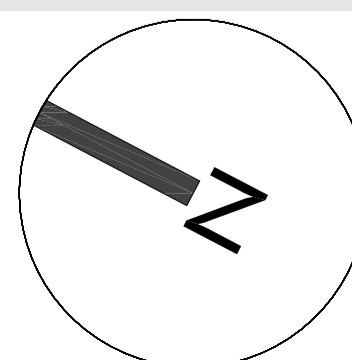
NOTE: ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH BCA, LOCAL COUNCILS CONDITIONS OF CONSENT, COPYRIGHT, DO NOT SCALE OFF ARCHITECTURAL DRAWINGS. THESE NOTES MUST BE READ IN CONJUNCTION WITH ALL OTHER NOTES. SELECTION FOR ADDITIONAL DETAILS ON APPLIANCES, FC ITEMS & SHOWER SCREENS SHOWN ON PLAN ARE IN THE DIMENSIONS SHOWN. SCREENS TO BE FITTED INSIDE OF HOBS/BULKHEADS MAY BE REQUIRED TO ACCOMMODATE APPLIANCES UNDER A STEEL BEAMS POSITION TO BE DETERMINED ON SITE. USE FIGURED DIMENSIONS ONLY. DO NOT SCALE. FINISHED GROUND LEVELS ON PLANS ARE SUBJECT TO SITE CONDITIONS. ALL CALCULATED DIMENSIONS ARE SUBJECT TO SITE CONDITIONS. CONSTRUCTION & NO ALLOWANCE HAS BEEN MADE FOR SHINKAGE DURING POSITIONING OF ELECTRICAL METERS TO BE DETERMINED ON SITE IN ACCORDANCE TO THE TUBED POSITION FRONT GARDEN TAP ON METER ENERGY SAVING DEVICE. RATED WATER CONSERVATION DEVICES INCLUDE RAINWATER TANKS, SHOWER HEADS, WATER TAP FLOW REGULATORS, DUAL FLUSH TOILET CISTERNS, COMPLIANT HOT WATER SYSTEMS WITH ANNUAL GREEN HOUSE SCORE OF 3.33 ARE TO BE USED IN THE DEVELOPMENT. OCCUPANTS ARE ENCOURAGED TO USE A RATED DRY WASHING MACHINES WITH FRONT LOADING WHERE POSSIBLE. OWNER/BUILDER MUST READ ALL PLANS IN CONJUNCTION WITH THE ABOVE REPORT.

DO NOT SCALE OFF ARCHITECTURAL DRAWINGS



**JANSSEN
DESIGNS**

info@janssengdesigns.com.au | PO Box 41, Kenthurst 2156 | m: 0423 216 636
 Nominated Architect: Jake Janssen NSW ARB 11575



AMENDMENTS		
ISSUE	DESCRIPTION	DATE

Project Title:
Proposed Child Care Centre

DRAWING TITLE:
Roof Plan

ADDRESS:
16 Terry Road, Eastwood

CLIENT DETAILS:
Zhong

LOCAL GOVERNMENT AREA:
Ryde Council

Issue For: DA
Issue: A

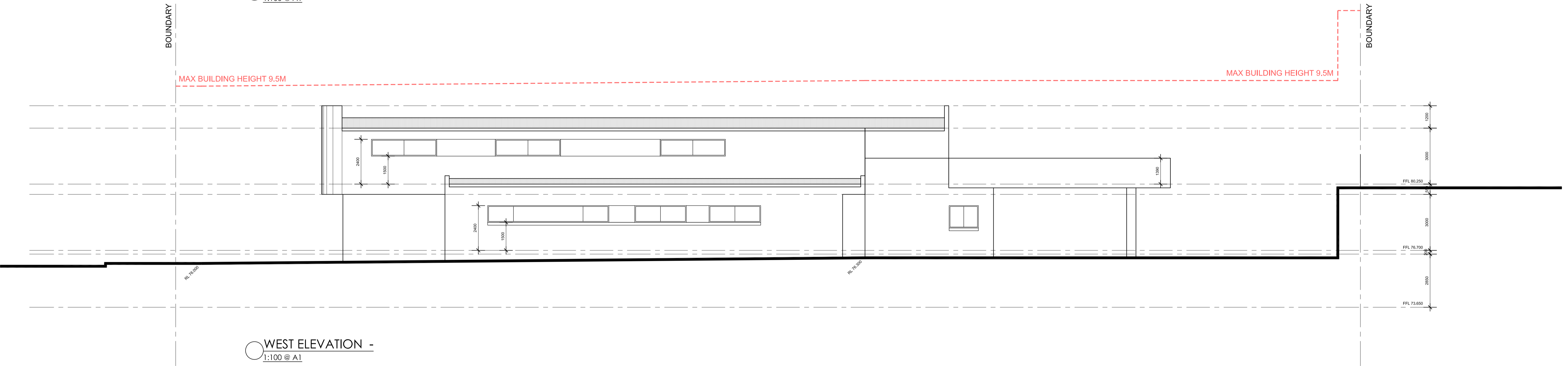
Date: 1.9.2023
Scale: 1:100
Drawing #: A009
Project #: 10258

NOTE: ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH BCA, SAA & COUNCILS CONDITIONS. **COPYRIGHT:** DO NOT SCALE OFF ARCHITECTURAL DRAWINGS. THESE NOTES MUST BE READ IN CONJUNCTION WITH COLOURS. SELECTION FOR ADDITIONAL DETAILS ON APPLIANCES, FC ITEMS & SHOWER SEALS SHOWN ON PLAN ARE INSIDE HOBS DIMENSIONS SHOWER SCREENS TO BE FITTED ON INSIDE OF HOBS BULKHEADS MAY BE REQUIRED TO ACCOMMODATE DRAINAGE LINES & STEEL BEAMS POSITION TO BE DETERMINED ON SITE. **USE FIGURED DIMENSIONS ONLY. DO NOT SCALE.** FINISHED GROUND LEVELS ON PLANS ARE SUBJECT TO SITE CONDITIONS. ALL CALCULATED DIMENSIONS ARE SUBJECT TO SITE MEASURE DURING CONSTRUCTION & NO ALLOWANCE HAS BEEN MADE FOR SHRINKAGE OR SWELLING. POSITION OF ELECTRICAL METERS TO BE DETERMINED ON SITE IN ACCORDANCE TO THE TURRET POSITION FRONT GARDEN TAP ON METER. **ENERGY SMART DESIGN:** AAA RATED WATER CONSERVATION DEVICES INCLUDE RAINWATER TANKS SHOWER HEADS, WATER TAP FLOW REGULATORS, DUAL FLUSH TOILETS CISTERNS & COMPLIANT HOT WATER SYSTEMS WITH AN ENERGY GREEN HOUSE SCORE OF 3 STARS ARE TO BE USED IN THIS DEVELOPMENT. OCCUPANTS ARE ENCOURAGED TO USE AAA RATED DREW WASHING MACHINES WITH FRONT LOADING WHERE POSSIBLE. OWNER/BUILDER MUST READ ALL PLANS IN CONJUNCTION WITH THE ABSA & BASK REPORT.

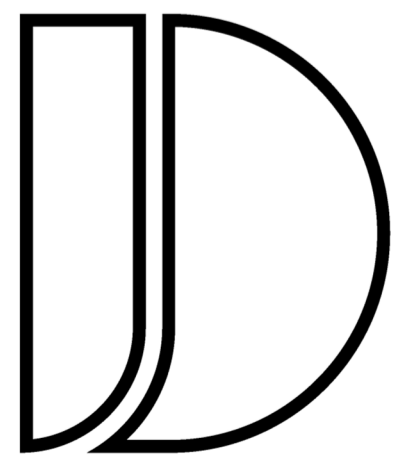
DO NOT SCALE OFF ARCHITECTURAL DRAWINGS



NORTH ELEVATION | STREETSCAPE -
1:100 @ A1

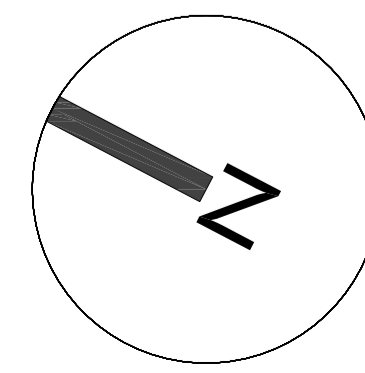


WEST ELEVATION -
1:100 @ A1



**JANSSSEN
DESIGNS**

Info@janssendedesigns.com.au | PO Box 41, Kenthurst 2156 | m: 0423 216 636
Nominated Architect: Jake Janssen NSW ARB 11575



AMENDMENTS		
ISSUE	DESCRIPTION	DATE

Project Title:
Proposed Child Care
Centre

DRAWING TITLE:
Elevations

ADDRESS:
16 Terry Road, Eastwood

CLIENT DETAILS:
Zhong

LOCAL GOVERNMENT AREA:
Ryde Council

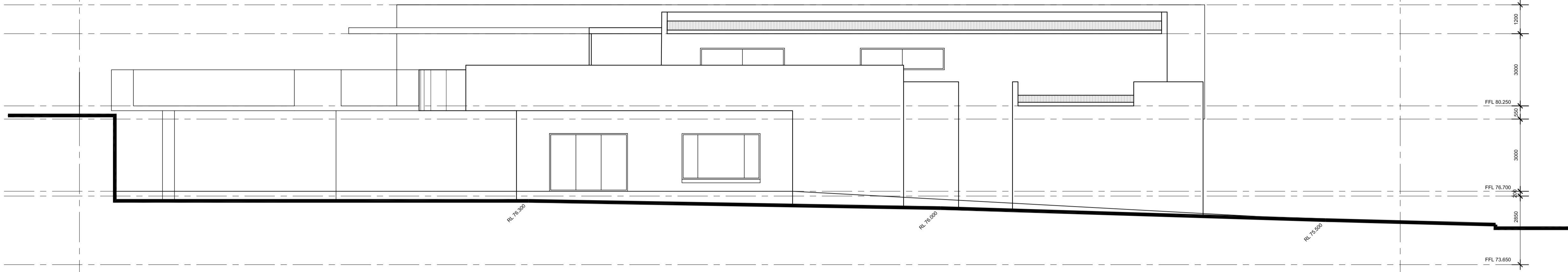
Issue For: DA	Issue: A
Date: 17.2023	Scale: 1:100
Drawing #: A10	Project #: 10258

NOTE: ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH BCA, SAA & COUNCILS CONDITIONS. **COPYRIGHT:** DO NOT SCALE OFF ARCHITECTURAL DRAWINGS. THESE NOTES MUST BE READ IN CONJUNCTION WITH COLOURS. SELECTION FOR ADDITIONAL DETAILS ON APPLIANCES, FC ITEMS & SHOWER SEALS SHOWN ON PLAN ARE IN THE DIMENSIONS. SHOWER SCREENS TO BE FITTED ON INSIDE OF HOBS/BULKHEADS MAY BE REQUIRED TO ACCOMMODATE DRAINAGE LINES & STEEL BEAMS POSITION TO BE DETERMINED ON SITE. **USE FIGURED DIMENSIONS ONLY. DO NOT SCALE.** FINISHED GROUND LEVELS ON PLANS ARE SUBJECT TO SITE CONDITIONS. ALL CALCULATED DIMENSIONS ARE SUBJECT TO SITE MEASURE DURING CONSTRUCTION & NO ALLOWANCE HAS BEEN MADE FOR SHRINKAGE OR SWELLING. POSITION OF ELECTRICAL METER TO BE DETERMINED ON SITE IN ACCORDANCE TO THE TURKEY POSITION FRONT GARDEN TAP ON METER. **ENERGY SMART DESIGN:** AAA RATED WATER CONSERVATION DEVICES INCLUDE RAINWATER TANKS, SHOWER HEADS, WATER TAP FLOW REGULATORS, DUAL FLUSH TOILETS, CISTERNS & COMPLIANT HOT WATER SYSTEMS WITH AN ENERGY GREEN HOUSE SCORE OF 3 STARS ARE TO BE USED IN THE DEVELOPMENT. OCCUPANTS ARE ENCOURAGED TO USE AAA RATED DISH WASHING MACHINES WITH FRONT LOADING WHERE POSSIBLE. OWNER/BUILDER MUST READ ALL PLANS IN CONJUNCTION WITH THE ABSA & BASK REPORT.

DO NOT SCALE OFF ARCHITECTURAL DRAWINGS

BOUNDARY

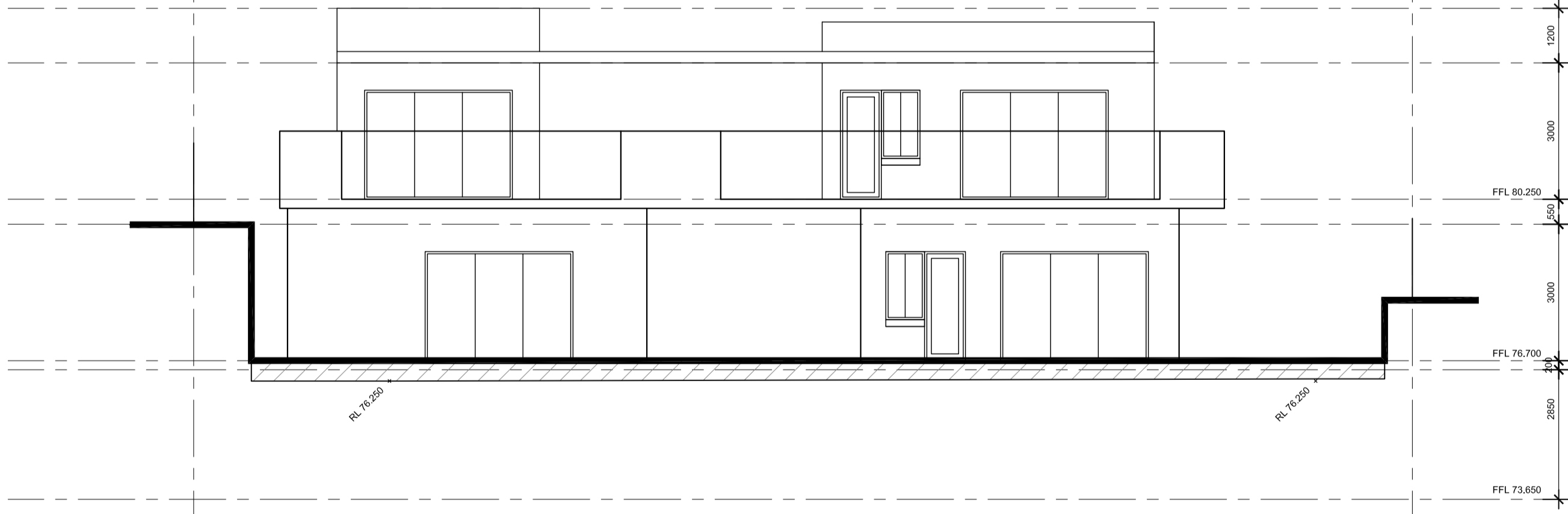
BOUNDARY



EAST ELEVATION -
1:100 @ A1

BOUNDARY

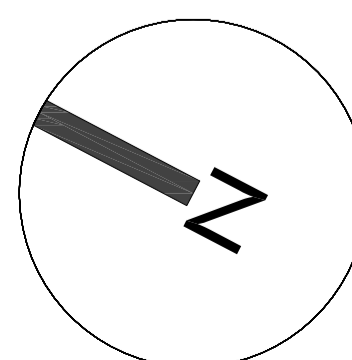
BOUNDARY



SOUTH ELEVATION -
1:100 @ A1

**JANSSEN
DESIGNS**

info@janssendedesigns.com.au | PO Box 41, Kenthurst 2156 | m: 0423 216 636
Nominated Architect: Jake Janssen NSW ARB 11575



AMENDMENTS		
ISSUE	DESCRIPTION	DATE

Project Title:
Proposed Child Care
Centre

DRAWING TITLE:
Elevations

ADDRESS:
16 Terry Road, Eastwood

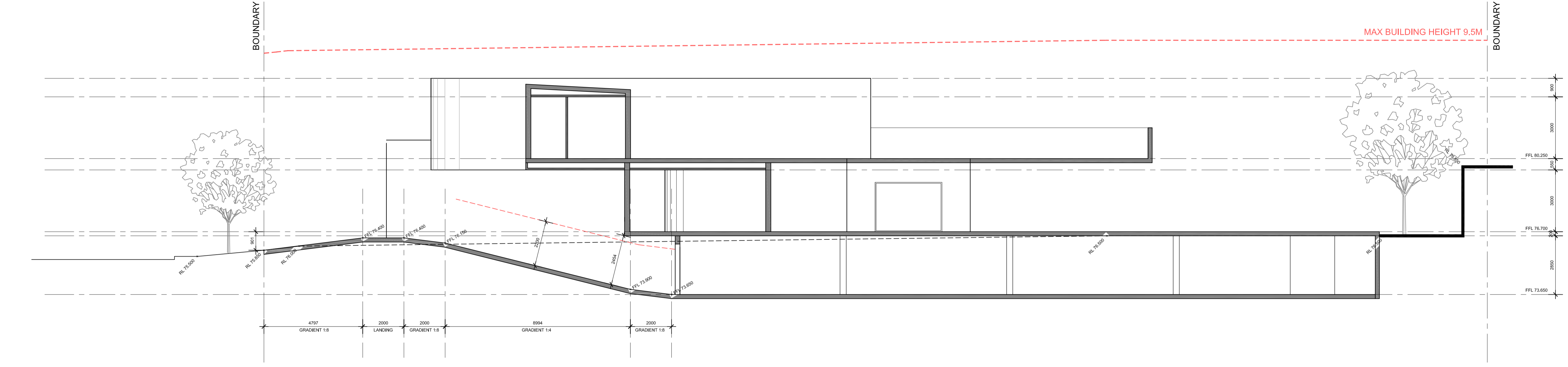
CLIENT DETAILS:
Zhong

LOCAL GOVERNMENT AREA:
Ryde Council

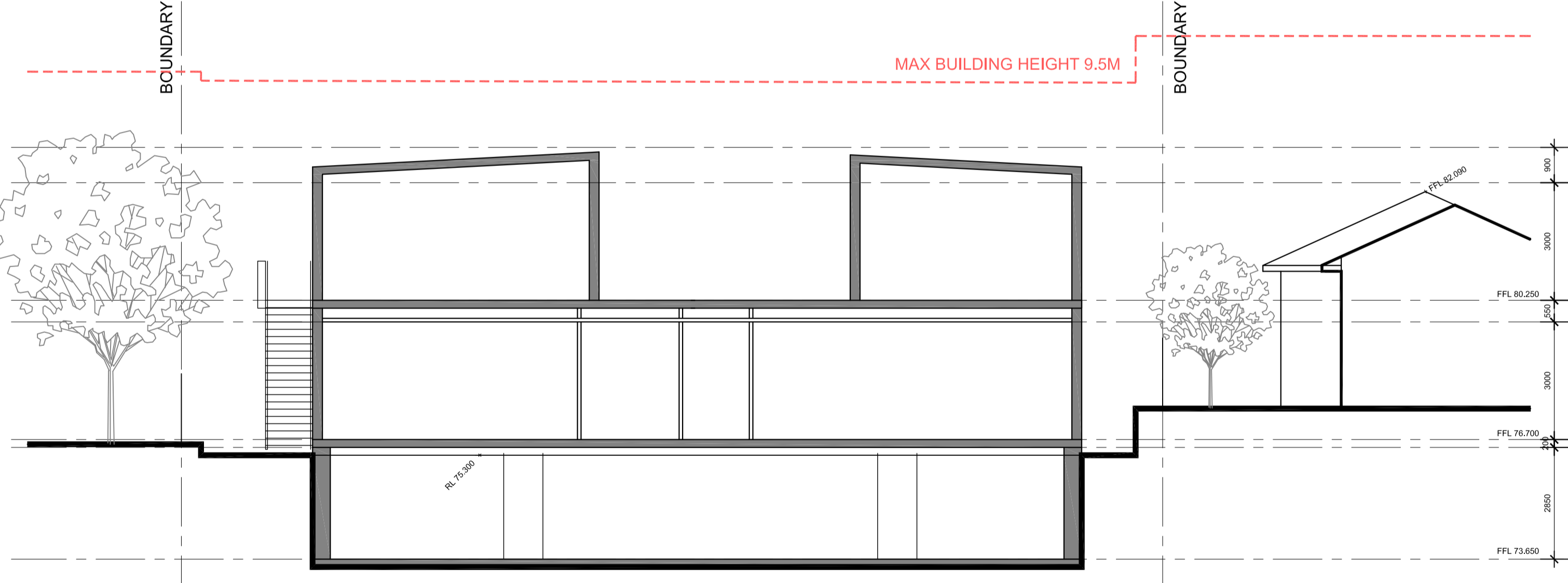
Issue For: DA	Issue: A
Date: 1.9.2023	Scale: 1:100
Drawing #: A01	Project #: 10258

NOTE: ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH BCA, SAA & COUNCILS CONDITIONS. **COPYRIGHT:** DO NOT SCALE OFF ARCHITECTURAL DRAWINGS. THESE NOTES MUST BE READ IN CONJUNCTION WITH COLOURS. SELECTION FOR ADDITIONAL DETAILS ON APPLIANCES, FC ITEMS & SHOWER SEALS SHOWN ON PLAN ARE IN THE HOBBY DIMENSIONS. SHOWER SCREENS TO BE FITTED ON INSIDE OF HOBBY BATHS MAY BE REQUIRED TO ACCOMMODATE DRAINAGE LINES & STEEL BEAMS POSITION TO BE DETERMINED ON SITE. **USE FIGURED DIMENSIONS ONLY. DO NOT SCALE.** FINISHED GROUND LEVELS ON PLANS ARE SUBJECT TO SITE CONDITIONS. ALL CALCULATED DIMENSIONS ARE SUBJECT TO SITE MEASURE DURING CONSTRUCTION & NO ALLOWANCE HAS BEEN MADE FOR SHRINKAGE OR SWELLING. POSITION OF ELECTRICAL METER TO BE DETERMINED ON SITE IN ACCORDANCE TO THE TURRET POSITION FRONT GARDEN TAP ON METER. **ENERGY SMART DESIGN:** AAA RATED WATER CONSERVATION DEVICES INCLUDE RAINWATER TANKS, SHOWER HEADS, WATER TAP FLOW REGULATORS, DUAL FLUSH TOILET CISTERNS & COMPLIANT HOT WATER SYSTEMS WITH AN MINIMUM GREEN HOUSE SCORE OF 3 STARS ARE TO BE USED IN THE DEVELOPMENT. OCCUPANTS ARE ENCOURAGED TO USE AAA RATED DRY WASHING MACHINES WITH FRONT LOADING WHERE POSSIBLE. OWNER/BUILDER MUST READ ALL PLANS IN CONJUNCTION WITH THE ABSA & BASK REPORT.

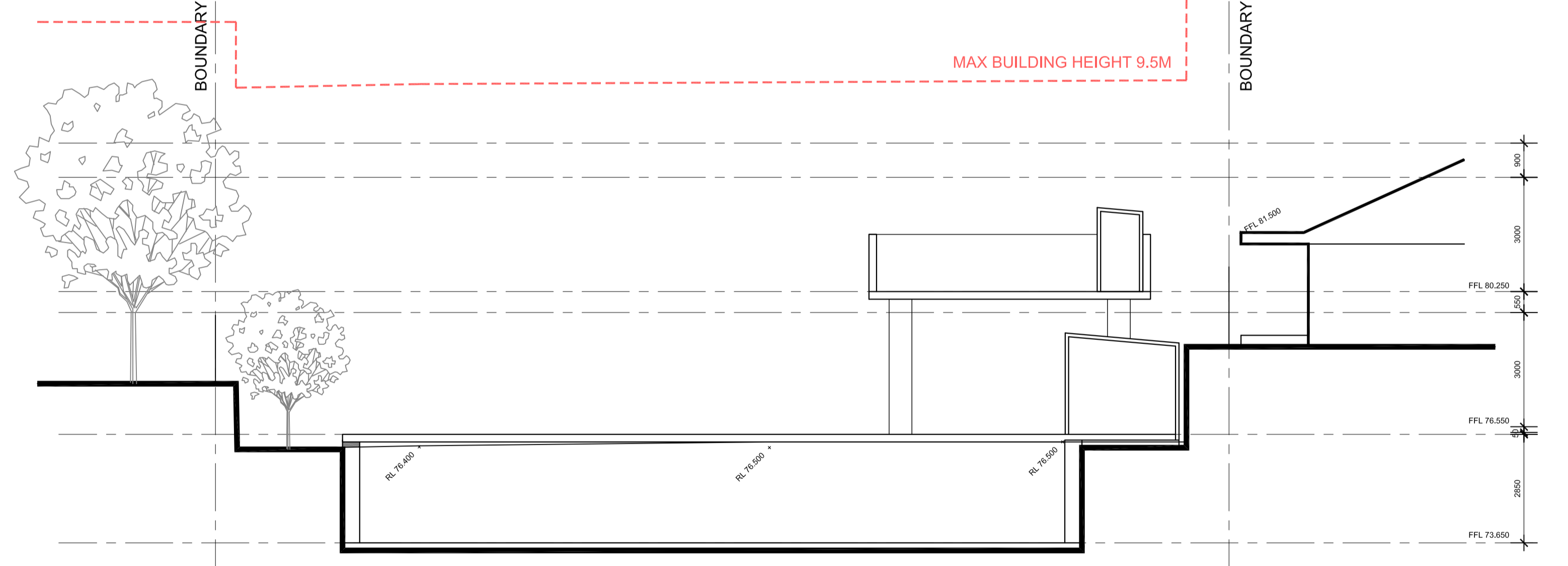
DO NOT SCALE OFF ARCHITECTURAL DRAWINGS



SECTION A -
1:100 @ A1



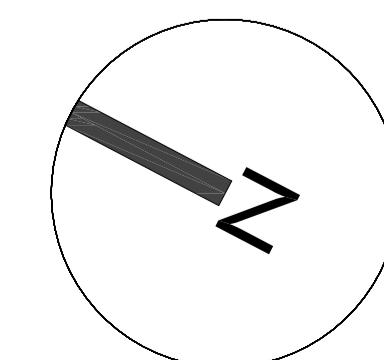
SECTION B -
1:100 @ A1



SECTION C -
1:100 @ A1

**JANSSEN
DESIGNS**

info@janssendedesigns.com.au | PO Box 41, Kenthurst 2156 | m: 0423 216 636
Nominated Architect: Jake Janssen NSW ARB 11575



AMENDMENTS		
ISSUE	DESCRIPTION	DATE

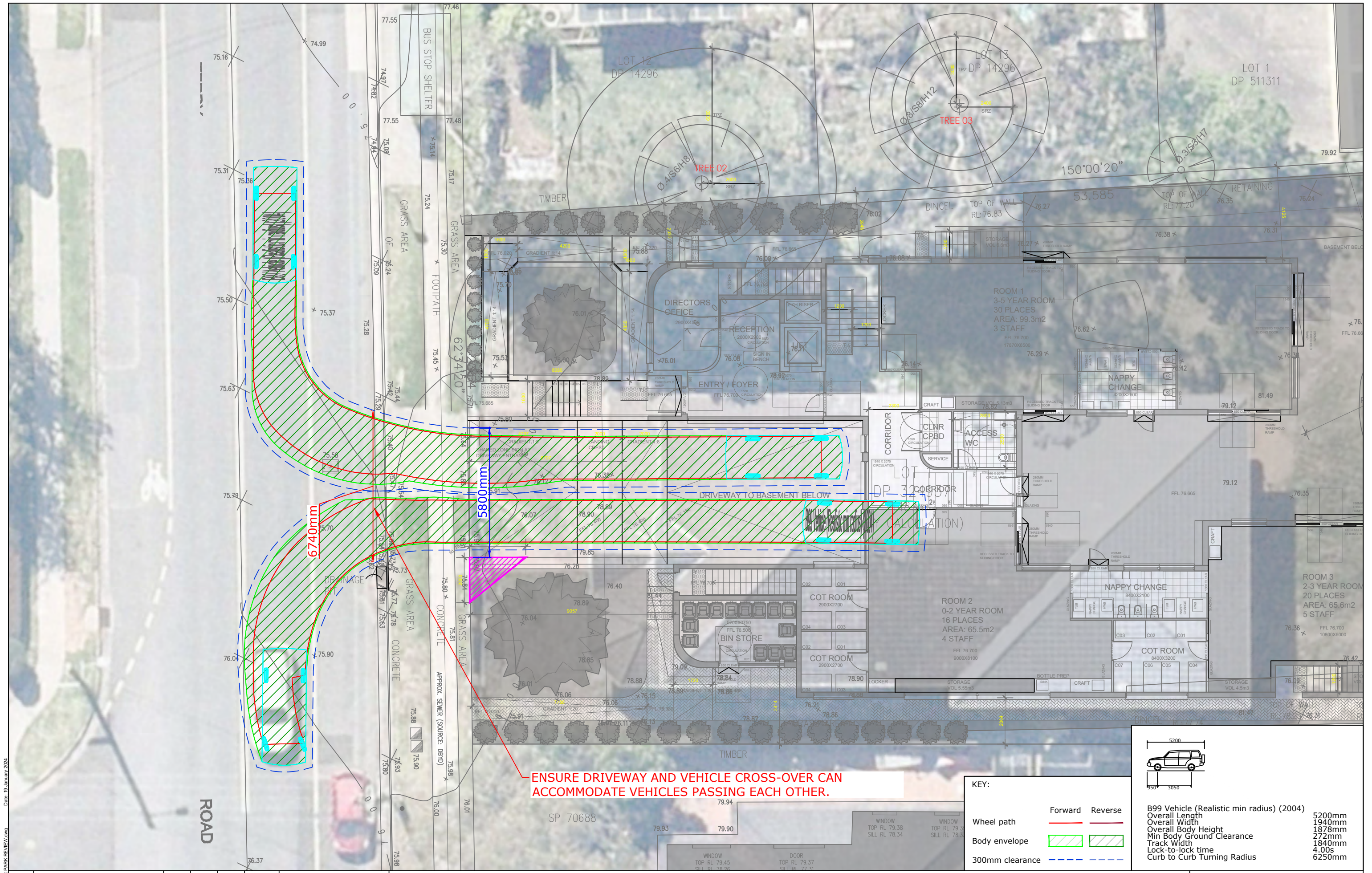
Project Title:
Proposed Child Care
Centre

DRAWING TITLE:
Sections
ADDRESS:
16 Terry Road, Eastwood

CLIENT DETAILS:
Zhong
LOCAL GOVERNMENT AREA:
Ryde Council
Issue For:
DA
Issue:
A
Date:
1.9.2023
Scale:
1:100
Drawing #:
A012
Project #:
10258

Appendix B

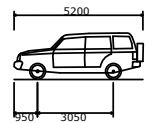
Site Layout Review



ENSURE DRIVEWAY AND VEHICLE CROSS-OVER CAN ACCOMMODATE VEHICLES PASSING EACH OTHER.

KEY:

Wheel path	Forward	Reverse
Body envelope		
300mm clearance		



B99 Vehicle (Realistic min radius) (2004)	
Overall Length	5200mm
Overall Width	1940mm
Overall Body Height	1878mm
Min Body Ground Clearance	272mm
Track Width	1840mm
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	62500mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	HT	AM	AM	19/01/24



PROJECT
16 TERRY ROAD, EASTWOOD

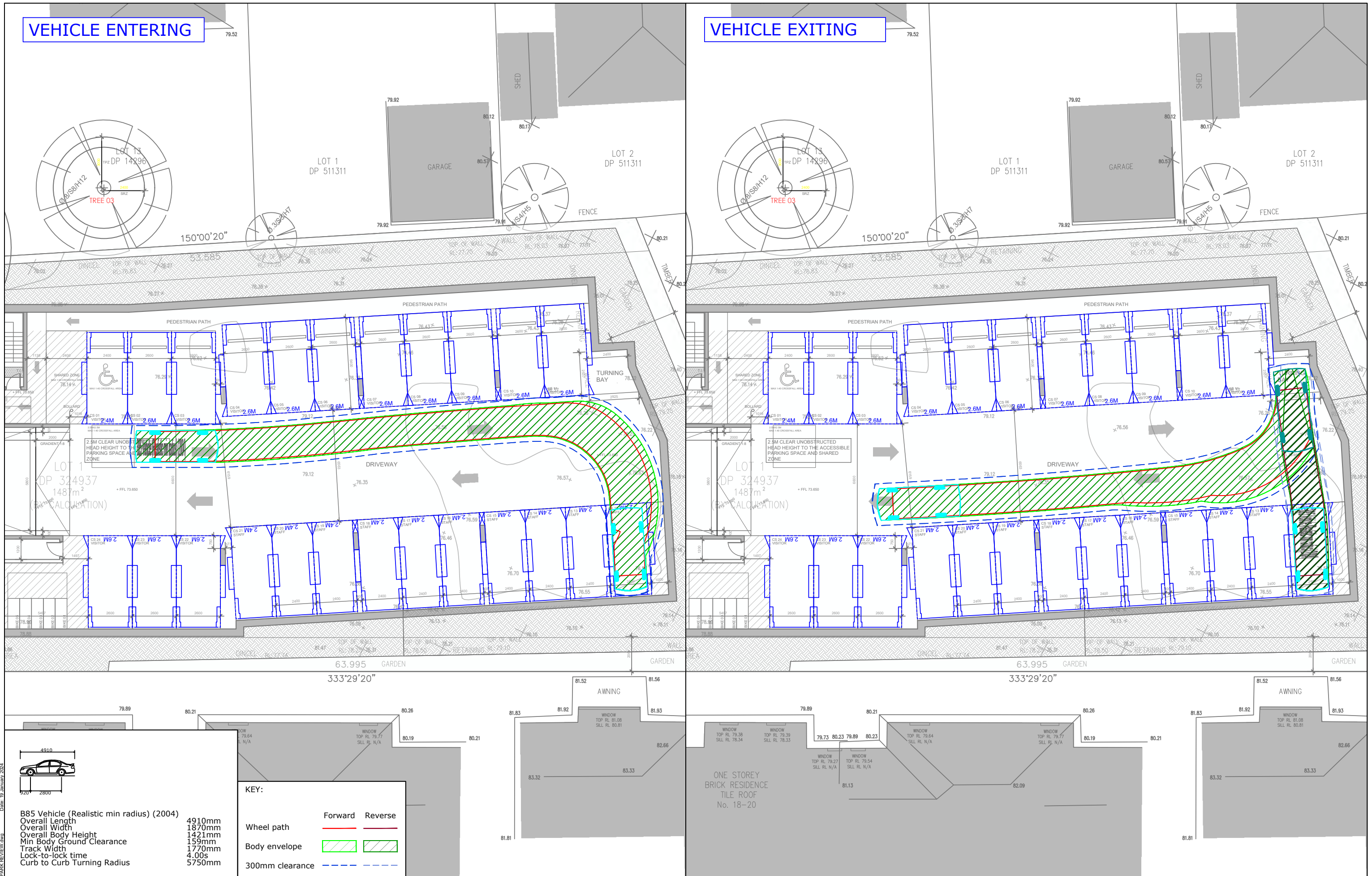
TITLE
SWEEP PATH ANALYSIS - GROUND LEVEL
AS2890.1 5.2m B99 VEHICLE

DWG No.	23344CAD004	
	FIGURE 1	
DATE STAMP	19 JANUARY 2024	
PROJECT No.	23344	SCALE 1:150 @A3
REV.	A	

Date: 19 January 2024
Filename: 23344CAD004-240119-CAR PARK REVIEW.dwg

VEHICLE ENTERING

VEHICLE EXITING



4910
1870
1421
159
1770
4.00s
5750mm

B85 Vehicle (Realistic min radius) (2004)
 Overall Length
 Overall Width
 Overall Body Height
 Min Body Ground Clearance
 Track Width
 Lock-to-lock time
 Curb to Curb Turning Radius

KEY:

Wheel path	Forward	Reverse
Body envelope	Green hatched	Blue hatched
300mm clearance	Dashed blue line	

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	HT	AM	AM	19/01/24



PROJECT: 16 TERRY ROAD, EASTWOOD

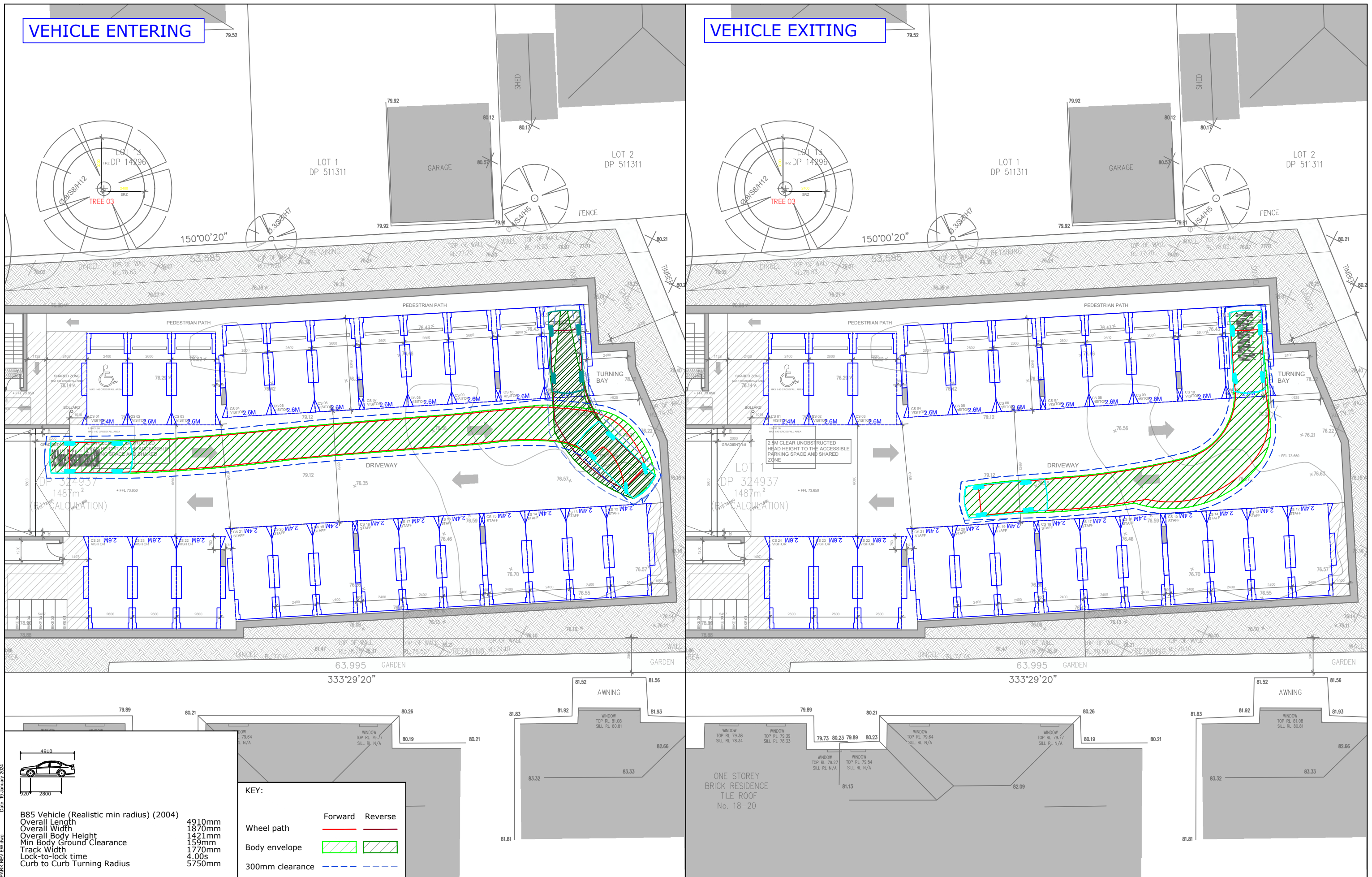
TITLE: SWEEP PATH ANALYSIS - BASEMENT LEVEL AS2890.1 4.9m B85 VEHICLE

DWG No.	23344CAD004	
	FIGURE 2	
DATE STAMP	19 JANUARY 2024	
PROJECT No.	23344	SCALE 1:200 @A3
REV.	A	

Date: 19 January 2024
Filename: 23344CAD004-240119-CAR PARK REVIEW.dwg

VEHICLE ENTERING

VEHICLE EXITING



4910
1870
1421
159
1770
4.00s
5750mm

B85 Vehicle (Realistic min radius) (2004)
 Overall Length
 Overall Width
 Overall Body Height
 Min Body Ground Clearance
 Track Width
 Lock-to-lock time
 Curb to Curb Turning Radius

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	HT	AM	AM	19/01/24



PROJECT
16 TERRY ROAD, EASTWOOD

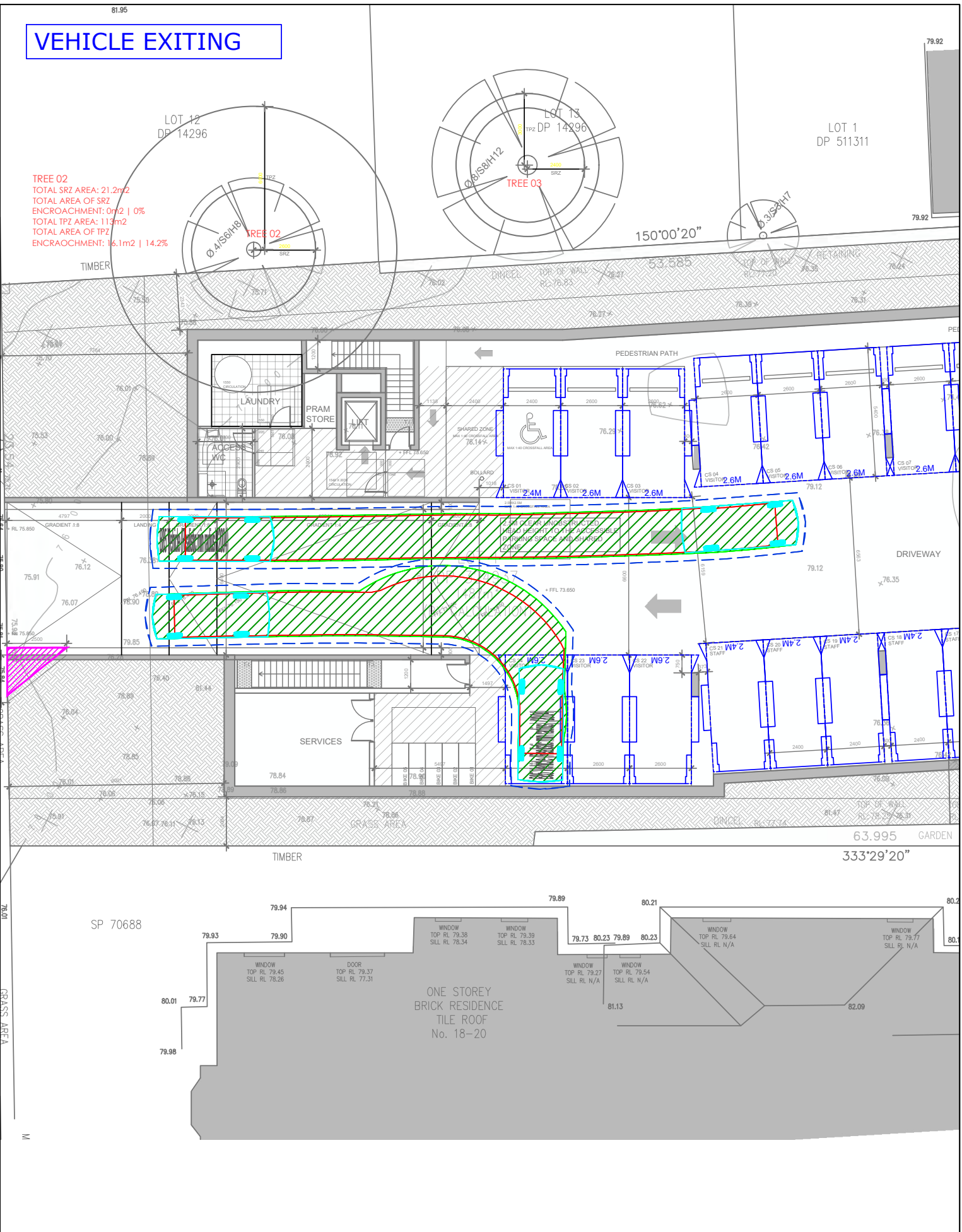
TITLE
**SWEPT PATH ANALYSIS - BASEMENT LEVEL
AS2890.1 4.9m B85 VEHICLE**

DWG No.	23344CAD004	
	FIGURE 3	
DATE STAMP	19 JANUARY 2024	
PROJECT No.	SCALE	REV.
23344	1:200 @A3	A

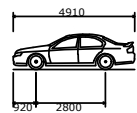
Date: 19 January 2024
Filename: 23344CAD004-240119-CAR PARK REVIEW.dwg

VEHICLE ENTERING

VEHICLE EXITING



TREE 02
TOTAL SRZ AREA: 21.27m²
TOTAL AREA OF SRZ ENCROACHMENT: 0m² | 0%
TOTAL TPZ AREA: 113m²
TOTAL AREA OF TPZ ENCROACHMENT: 16.1m² | 14.2%



B85 Vehicle (Realistic min radius) (2004)
 Overall Length 4910mm
 Overall Width 1870mm
 Overall Body Height 1421mm
 Min Body Ground Clearance 159mm
 Track Width 1770mm
 Lock-to-lock time 4.00s
 Curb to Curb Turning Radius 5750mm

KEY:

Forward Reverse
 Wheel path ————
 Body envelope ▨ ▨
 300mm clearance - - - - -

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	HT	AM	AM	19/01/24



PROJECT: 16 TERRY ROAD, EASTWOOD
 TITLE: SWEEP PATH ANALYSIS - BASEMENT LEVEL AS2890.1 4.9m B85 VEHICLE

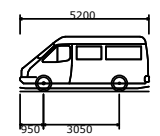
DWG No.	23344CAD004
	FIGURE 4
DATE STAMP	19 JANUARY 2024
PROJECT No.	23344
SCALE	1:200 @A3
REV.	A

Date: 19 January 2024
 Filename: 23344CAD004-240119-CAR PARK REVIEW.dwg

VEHICLE ENTERING

KEY:

- Vertical Clearance
- Driveway / Ramp Profile

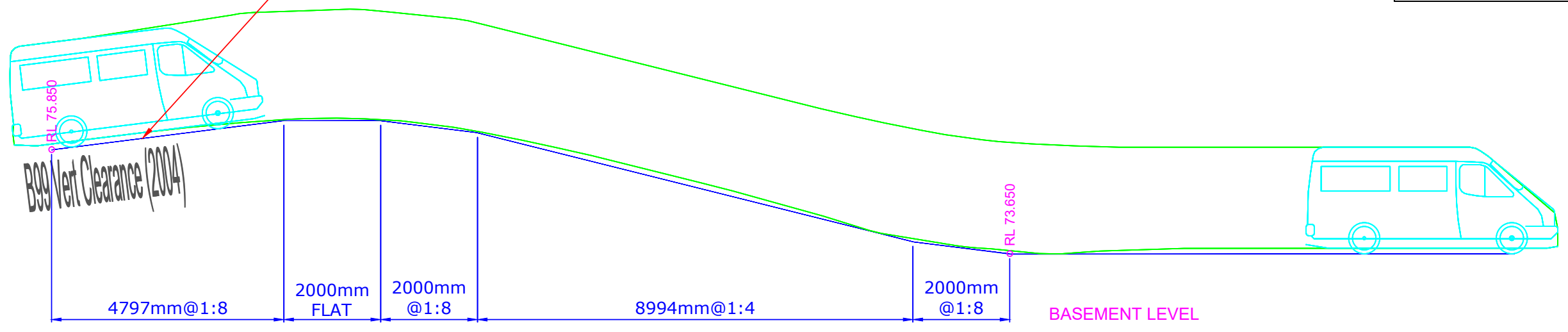


B99 Vert Clearance (2004)

Overall Length	5200mm
Overall Width	1940mm
Overall Body Height	2200mm
Min Body Ground Clearance	120mm
Track Width	1840mm
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	8000mm

1:8 EXCEEDS MAXIMUM 1:20 GRADE AS PER 2890.1.2004. ADDITIONAL TRAFFIC MANAGEMENT/SIGNAGE REQUIRED AS SHOWN IN FIGURE 1.

GROUND LEVEL

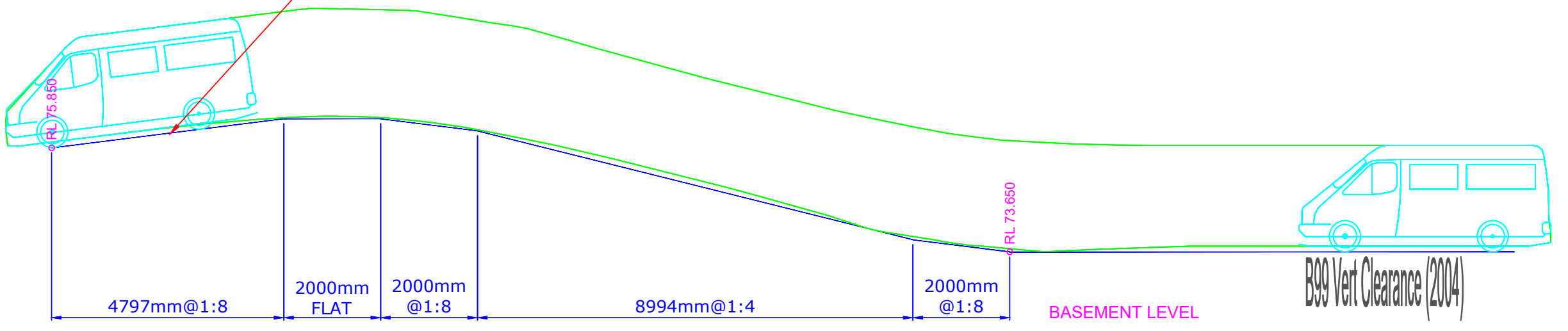


BASEMENT LEVEL

VEHICLE EXITING

1:8 EXCEEDS MAXIMUM 1:20 GRADE AS PER 2890.1.2004. ADDITIONAL TRAFFIC MANAGEMENT/SIGNAGE REQUIRED AS SHOWN IN FIGURE 1.

GROUND LEVEL



B99 Vert Clearance (2004)

BASEMENT LEVEL

Date: 19 January 2024
Filename: 23344CAD004-2401-16-CAR PARK REVIEW.dwg

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	HT	AM	AM	19/01/24



PROJECT: 16 TERRY ROAD, EASTWOOD

TITLE: VERTICAL CLEARANCE - GROUND TO BASEMENT RAMP
5.2m B99 VEHICLE

DWG No.	23344CAD004		
	FIGURE 5		
DATE STAMP	19 JANUARY 2024		
PROJECT No.	SCALE	REV.	
23344	1:100 @A3	A	

Appendix C

Traffic Surveys



transport planning

Job Number 23344
 Intersection Terry Rd / Midson Rd / Shaftsbury Rd
 Weather Fine
 Date Thursday, 19 October 2023
 AM Peak 8:00 AM
 PM Peak 5:00 PM

AM PEAK

Traffic Flows (Separate Classes)

		N - Midson Road					
W - Terry Road	H	0	3	3	1	HV	
	LV	0	168	383	116	LV	
		16	320				
		0	109				
		0	0				
		S - Shaftsbury Road					
				0	0		
				40	0		
				230	6		
				51	3		
LV	47	122	0	0			
HV	1	3	0	0			
		E - Terry Road					

PM PEAK

Traffic Flows (Separate Classes)

		N - Midson Road					
W - Terry Road	HV	0	9	0	0	HV	
	LV	0	149	250	78	LV	
		5	189				
		0	82				
		0	0				
		S - Shaftsbury Road					
				0	0		
				112	1		
				249	8		
				14	0		
LV	139	348	0	0			
HV	3	1	0	0			
		E - Terry Road					

Traffic Flows (Totals)

		N - Midson Road					
W - Terry Road		69					
		336					
		109					
		0					
		0					
		S - Shaftsbury Road					
				0	0		
				40	0		
				236	6		
				54	3		
LV	48	125	0	0			
HV	1	3	0	0			
		E - Terry Road					

Traffic Flows (Totals)

		N - Midson Road					
W - Terry Road		127					
		194					
		82					
		0					
		0					
		S - Shaftsbury Road					
				0	0		
				113	1		
				257	8		
				14	0		
LV	142	349	0	0			
HV	3	1	0	0			
		E - Terry Road					

Traffic Flows (Totals with Heavies)

		N - Midson Road					
W - Terry Road	HV	0	3	3	1	HV	
	Total	0	171	386	117	Total	
		16	336				
		0	109				
		0	0				
		S - Shaftsbury Road					
				0	0		
				40	0		
				236	6		
				54	3		
Total	48	125	0	0			
HV	1	3	0	0			
		E - Terry Road					

Traffic Flows (Totals with Heavies)

		N - Midson Road					
W - Terry Road	HV	0	9	0	0	HV	
	Total	0	158	250	78	Total	
		5	194				
		0	82				
		0	0				
		S - Shaftsbury Road					
				0	0		
				113	1		
				257	8		
				14	0		
Total	142	349	0	0			
HV	3	1	0	0			
		E - Terry Road					

Appendix D

SIDRA Outputs

MOVEMENT SUMMARY

Site: 1.1895 [AM_Terry Rd / Marsden Rd (Site Folder: Existing)]

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Phase Times)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Marsden Road														
2	T1	544	61	573	11.2	0.414	4.7	LOS A	10.9	83.4	0.36	0.33	0.36	54.8
3	R2	406	18	427	4.4	* 0.936	54.4	LOS D	23.3	169.6	1.00	0.99	1.32	26.6
Approach		950	79	1000	8.3	0.936	26.0	LOS B	23.3	169.6	0.63	0.61	0.77	37.7
East: Terry Road														
4	L2	350	14	368	4.0	0.453	27.6	LOS B	14.1	102.2	0.71	0.77	0.71	35.0
6	R2	187	2	197	1.1	0.881	72.8	LOS F	13.0	91.8	1.00	0.99	1.31	25.8
Approach		537	16	565	3.0	0.881	43.3	LOS D	14.1	102.2	0.81	0.85	0.92	30.3
North: Marsden Road														
7	L2	199	3	209	1.5	* 0.773	19.2	LOS B	29.8	215.3	0.92	0.89	0.92	35.2
8	T1	964	46	1015	4.8	* 0.773	36.6	LOS C	30.6	222.9	0.93	0.86	0.93	35.8
Approach		1163	49	1224	4.2	0.773	33.6	LOS C	30.6	222.9	0.92	0.86	0.93	35.7
All Vehicles		2650	144	2789	5.4	0.936	32.8	LOS C	30.6	222.9	0.80	0.77	0.87	35.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
						[Ped ped	Dist] m					
South: Marsden Road												
P1	Full	6	6	54.2	LOS E	0.0	0.0	0.95	0.95	208.0	200.0	0.96
East: Terry Road												
P2	Full	2	2	54.2	LOS E	0.0	0.0	0.95	0.95	208.0	200.0	0.96
All Pedestrians		8	8	54.2	LOS E	0.0	0.0	0.95	0.95	208.0	200.0	0.96

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 1.1895 [PM_Terry Rd / Marsden Rd (Site Folder: Existing)]

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Phase Times)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Marsden Road														
2	T1	933	14	982	1.5	0.768	13.9	LOS A	38.1	270.1	0.73	0.67	0.73	46.8
3	R2	295	7	311	2.4	*0.866	41.5	LOS C	13.0	92.6	1.00	0.93	1.21	30.1
Approach		1228	21	1293	1.7	0.866	20.5	LOS B	38.1	270.1	0.80	0.73	0.85	41.3
East: Terry Road														
4	L2	317	21	334	6.6	0.376	37.4	LOS C	11.4	84.4	0.63	0.75	0.63	36.7
6	R2	337	4	355	1.2	*1.116	196.6	LOS F	38.1	269.4	1.00	1.41	2.09	14.5
Approach		654	25	688	3.8	1.116	119.4	LOS F	38.1	269.4	0.82	1.09	1.38	18.1
North: Marsden Road														
7	L2	156	1	164	0.6	0.684	14.6	LOS B	23.1	166.2	0.90	0.84	0.90	35.4
8	T1	774	33	815	4.3	*0.684	38.1	LOS C	23.8	172.9	0.90	0.81	0.90	35.5
Approach		930	34	979	3.7	0.684	34.1	LOS C	23.8	172.9	0.90	0.82	0.90	35.5
All Vehicles		2812	80	2960	2.8	1.116	48.0	LOS D	38.1	270.1	0.84	0.85	0.99	30.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
						[Ped ped	Dist] m					
South: Marsden Road												
P1	Full	5	5	54.2	LOS E	0.0	0.0	0.95	0.95	208.0	200.0	0.96
East: Terry Road												
P2	Full	2	2	54.2	LOS E	0.0	0.0	0.95	0.95	208.0	200.0	0.96
All Pedestrians		7	7	54.2	LOS E	0.0	0.0	0.95	0.95	208.0	200.0	0.96

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 2.1139 [AM_Terry Rd / Shaftsbury Rd / Midson Rd (Site Folder: Existing)]

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 97 seconds (Site User-Given Phase Times)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Shaftsbury Road														
1	L2	48	1	51	2.1	0.061	21.6	LOS B	1.3	9.2	0.58	0.69	0.58	30.6
2	T1	125	3	132	2.4	0.271	31.2	LOS C	5.0	35.8	0.84	0.68	0.84	25.4
Approach		173	4	182	2.3	0.271	28.5	LOS C	5.0	35.8	0.77	0.68	0.77	26.7
East: Terry Road														
4	L2	54	3	57	5.6	0.164	38.3	LOS C	2.5	18.5	0.84	0.73	0.84	21.9
5	T1	236	6	248	2.5	0.719	39.1	LOS C	13.0	92.5	0.98	0.86	1.03	15.4
6	R2	40	0	42	0.0	* 0.719	50.1	LOS D	13.0	92.5	0.98	0.87	1.04	13.5
Approach		330	9	347	2.7	0.719	40.3	LOS C	13.0	92.5	0.96	0.84	1.00	16.4
North: Midson Road														
7	L2	117	1	123	0.9	0.629	29.1	LOS C	19.3	135.9	0.83	0.76	0.83	13.8
8	T1	386	3	406	0.8	* 0.629	23.0	LOS B	19.3	135.9	0.83	0.76	0.83	29.5
9	R2	171	3	180	1.8	0.793	56.2	LOS D	9.1	64.9	1.00	0.92	1.21	11.6
Approach		674	7	709	1.0	0.793	32.5	LOS C	19.3	135.9	0.87	0.80	0.92	20.5
West: Terry Road														
10	L2	69	0	73	0.0	0.188	28.5	LOS C	4.2	30.0	0.63	0.63	0.63	19.7
11	T1	336	16	354	4.8	0.826	42.9	LOS D	15.6	112.7	0.91	0.91	1.03	18.6
12	R2	109	0	115	0.0	* 0.826	53.2	LOS D	15.6	112.7	0.99	0.99	1.14	23.7
Approach		514	16	541	3.1	0.826	43.2	LOS D	15.6	112.7	0.89	0.89	1.00	16.0
All Vehicles		1691	36	1780	2.1	0.826	36.9	LOS C	19.3	135.9	0.88	0.82	0.95	18.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
						[Ped ped	Dist] m					
South: Shaftsbury Road												
P1	Full	7	7	42.7	LOS E	0.0	0.0	0.94	0.94	196.5	200.0	1.02
East: Terry Road												
P2	Full	7	7	42.7	LOS E	0.0	0.0	0.94	0.94	196.5	200.0	1.02
North: Midson Road												
P3	Full	7	7	42.7	LOS E	0.0	0.0	0.94	0.94	196.5	200.0	1.02

West: Terry Road												
P4 Full	3	3	42.7	LOS E	0.0	0.0	0.94	0.94	196.5	200.0	1.02	
All Pedestrians	24	25	42.7	LOS E	0.0	0.0	0.94	0.94	196.5	200.0	1.02	

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

SIDRA INTERSECTION 9.0 | Copyright © 2000-2020 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: TTPP - THE TRANSPORT PLANNING PARTNERSHIP | Licence: NETWORK / 1PC | Processed: Thursday, 9 November 2023 12:34:31 PM

Project: C:\Users\ccfha\OneDrive - TTPP\23344 16 Terry Road, Eastwood\07 Modelling Files\Model\23344-231027.sip9

MOVEMENT SUMMARY

Site: 2.1139 [PM_Terry Rd / Shaftsbury Rd / Midson Rd (Site Folder: Existing)]

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 96 seconds (Site User-Given Phase Times)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Shaftsbury Road														
1	L2	142	3	149	2.1	0.191	24.1	LOS B	4.3	30.4	0.65	0.74	0.65	29.0
2	T1	349	1	367	0.3	* 0.711	35.1	LOS C	16.0	112.1	0.96	0.84	0.99	23.7
Approach		491	4	517	0.8	0.711	31.9	LOS C	16.0	112.1	0.87	0.81	0.89	25.1
East: Terry Road														
4	L2	14	0	15	0.0	0.163	33.6	LOS C	3.0	21.6	0.79	0.64	0.79	25.3
5	T1	257	8	271	3.1	0.713	33.2	LOS C	14.0	100.0	0.91	0.80	0.94	17.2
6	R2	113	1	119	0.9	* 0.713	41.4	LOS C	14.0	100.0	0.96	0.86	1.00	14.5
Approach		384	9	404	2.3	0.713	35.6	LOS C	14.0	100.0	0.92	0.81	0.95	16.7
North: Midson Road														
7	L2	78	0	82	0.0	0.420	26.5	LOS B	11.2	78.7	0.75	0.68	0.75	14.2
8	T1	250	0	263	0.0	0.420	20.6	LOS B	11.2	78.7	0.75	0.68	0.75	30.7
9	R2	158	9	166	5.7	* 0.994	88.6	LOS F	11.1	81.7	1.00	1.18	1.82	7.9
Approach		486	9	512	1.9	0.994	43.6	LOS D	11.2	81.7	0.83	0.84	1.09	16.7
West: Terry Road														
10	L2	127	0	134	0.0	0.127	18.7	LOS B	2.6	18.5	0.45	0.69	0.45	27.1
11	T1	194	5	204	2.6	0.529	25.6	LOS B	9.5	67.8	0.84	0.75	0.84	22.7
12	R2	82	0	86	0.0	* 0.529	32.8	LOS C	9.5	67.8	0.84	0.75	0.84	29.1
Approach		403	5	424	1.2	0.529	24.9	LOS B	9.5	67.8	0.72	0.73	0.72	22.8
All Vehicles		1764	27	1857	1.5	0.994	34.4	LOS C	16.0	112.1	0.84	0.80	0.92	20.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
						[Ped ped	Dist] m					
South: Shaftsbury Road												
P1	Full	1	1	42.2	LOS E	0.0	0.0	0.94	0.94	196.0	200.0	1.02
East: Terry Road												
P2	Full	8	8	42.2	LOS E	0.0	0.0	0.94	0.94	196.0	200.0	1.02
North: Midson Road												
P3	Full	1	1	42.2	LOS E	0.0	0.0	0.94	0.94	196.0	200.0	1.02

West: Terry Road												
P4 Full	8	8	42.2	LOS E	0.0	0.0	0.94	0.94	196.0	200.0	1.02	
All Pedestrians	18	19	42.2	LOS E	0.0	0.0	0.94	0.94	196.0	200.0	1.02	

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

SIDRA INTERSECTION 9.0 | Copyright © 2000-2020 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: TTPP - THE TRANSPORT PLANNING PARTNERSHIP | Licence: NETWORK / 1PC | Processed: Thursday, 9 November 2023 12:34:31 PM

Project: C:\Users\ccfha\OneDrive - TTPP\23344 16 Terry Road, Eastwood\07 Modelling Files\Model\23344-231027.sip9

MOVEMENT SUMMARY

Site: 1.1895 [AM_Terry Rd / Marsden Rd (Site Folder: Existing + Dev)]

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Phase Times)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Marsden Road														
2	T1	544	61	573	11.2	0.419	5.1	LOS A	6.9	53.0	0.37	0.34	0.37	54.4
3	R2	425	18	447	4.2	* 1.011	88.2	LOS F	19.3	140.2	1.00	1.13	1.65	17.7
Approach		969	79	1020	8.2	1.011	41.5	LOS C	19.3	140.2	0.65	0.68	0.93	28.5
East: Terry Road														
4	L2	367	14	386	3.8	0.615	26.6	LOS B	9.1	66.0	0.71	0.77	0.71	35.4
6	R2	196	2	206	1.0	0.866	69.6	LOS E	8.2	58.2	1.00	0.96	1.30	26.3
Approach		563	16	593	2.8	0.866	41.5	LOS C	9.1	66.0	0.81	0.84	0.92	31.1
North: Marsden Road														
7	L2	208	3	219	1.4	* 0.779	38.6	LOS C	18.5	133.8	0.93	0.89	0.93	35.6
8	T1	964	46	1015	4.8	* 0.779	32.8	LOS C	19.0	138.7	0.93	0.86	0.94	35.7
Approach		1172	49	1234	4.2	0.779	33.9	LOS C	19.0	138.7	0.93	0.87	0.93	35.7
All Vehicles		2704	144	2846	5.3	1.011	38.2	LOS C	19.3	140.2	0.80	0.80	0.93	31.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
						[Ped ped	Dist] m					
South: Marsden Road												
P1	Full	6	6	54.2	LOS E	0.0	0.0	0.95	0.95	219.5	215.0	0.98
East: Terry Road												
P2	Full	2	2	54.2	LOS E	0.0	0.0	0.95	0.95	221.1	217.0	0.98
All Pedestrians		8	8	54.2	LOS E	0.0	0.0	0.95	0.95	219.9	215.5	0.98

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 1.1895 [PM_Terry Rd / Marsden Rd (Site Folder: Existing + Dev)]

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Phase Times)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Marsden Road														
2	T1	933	14	982	1.5	0.768	13.9	LOS A	23.3	165.5	0.73	0.69	0.73	46.8
3	R2	308	7	324	2.3	*0.904	48.5	LOS D	9.0	64.3	1.00	0.98	1.32	28.4
Approach		1241	21	1306	1.7	0.904	22.5	LOS B	23.3	165.5	0.80	0.76	0.88	40.3
East: Terry Road														
4	L2	330	21	347	6.4	0.390	22.7	LOS B	7.4	54.3	0.64	0.75	0.64	37.0
6	R2	351	4	369	1.1	*1.162	219.9	LOS F	29.4	208.0	1.00	1.49	2.41	12.3
Approach		681	25	717	3.7	1.162	124.3	LOS F	29.4	208.0	0.83	1.13	1.55	17.3
North: Marsden Road														
7	L2	163	1	172	0.6	0.689	38.3	LOS C	14.3	102.7	0.90	0.85	0.90	35.7
8	T1	774	33	815	4.3	*0.689	33.4	LOS C	14.7	107.0	0.90	0.82	0.90	35.5
Approach		937	34	986	3.6	0.689	34.3	LOS C	14.7	107.0	0.90	0.82	0.90	35.5
All Vehicles		2859	80	3009	2.8	1.162	50.6	LOS D	29.4	208.0	0.84	0.87	1.05	29.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
						[Ped ped	Dist] m					
South: Marsden Road												
P1	Full	5	5	54.2	LOS E	0.0	0.0	0.95	0.95	219.5	215.0	0.98
East: Terry Road												
P2	Full	2	2	54.2	LOS E	0.0	0.0	0.95	0.95	221.1	217.0	0.98
All Pedestrians		7	7	54.2	LOS E	0.0	0.0	0.95	0.95	220.0	215.6	0.98

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 2.1139 [AM_Terry Rd / Shaftsbury Rd / Midson Rd (Site Folder: Existing + Dev)]

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 97 seconds (Site User-Given Phase Times)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Shaftsbury Road														
1	L2	50	1	53	2.0	0.063	21.6	LOS B	0.8	5.9	0.58	0.69	0.58	31.2
2	T1	125	3	132	2.4	0.271	31.2	LOS C	3.1	21.9	0.84	0.68	0.84	25.4
Approach		175	4	184	2.3	0.271	28.4	LOS B	3.1	21.9	0.77	0.68	0.77	26.9
East: Terry Road														
4	L2	54	3	57	5.6	0.167	38.3	LOS C	1.6	11.6	0.84	0.73	0.84	22.3
5	T1	247	6	260	2.4	0.734	39.8	LOS C	8.3	59.1	0.98	0.88	1.05	15.5
6	R2	40	0	42	0.0	*0.734	45.6	LOS D	8.3	59.1	0.99	0.88	1.06	13.5
Approach		341	9	359	2.6	0.734	40.2	LOS C	8.3	59.1	0.96	0.85	1.02	16.4
North: Midson Road														
7	L2	117	1	123	0.9	0.729	28.5	LOS C	11.8	83.2	0.83	0.76	0.83	13.8
8	T1	386	3	406	0.8	*0.729	22.4	LOS B	11.8	83.2	0.83	0.76	0.83	29.5
9	R2	179	3	188	1.7	0.830	57.5	LOS E	6.0	42.7	1.00	0.93	1.29	11.4
Approach		682	7	718	1.0	0.830	32.7	LOS C	11.8	83.2	0.87	0.80	0.95	20.5
West: Terry Road														
10	L2	72	0	76	0.0	0.197	22.5	LOS B	2.7	19.3	0.64	0.63	0.64	19.7
11	T1	352	16	371	4.5	0.863	31.6	LOS C	10.7	77.0	0.90	0.92	1.09	17.8
12	R2	114	0	120	0.0	*0.863	41.1	LOS C	10.7	77.0	0.98	1.00	1.21	23.1
Approach		538	16	566	3.0	0.863	32.4	LOS C	10.7	77.0	0.88	0.90	1.05	19.5
All Vehicles		1736	36	1827	2.1	0.863	33.6	LOS C	11.8	83.2	0.88	0.83	0.98	20.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
						[Ped ped	Dist] m					
South: Shaftsbury Road												
P1	Full	7	7	42.7	LOS E	0.0	0.0	0.94	0.94	205.4	211.5	1.03
East: Terry Road												
P2	Full	7	7	42.7	LOS E	0.0	0.0	0.94	0.94	206.2	212.5	1.03
North: Midson Road												
P3	Full	7	7	42.7	LOS E	0.0	0.0	0.94	0.94	207.3	214.0	1.03

West: Terry Road												
P4 Full	3	3	42.7	LOS E	0.0	0.0	0.94	0.94	206.9	213.5	1.03	
All Pedestrians	24	25	42.7	LOS E	0.0	0.0	0.94	0.94	206.4	212.8	1.03	

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

SIDRA INTERSECTION 9.0 | Copyright © 2000-2020 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: TTPP - THE TRANSPORT PLANNING PARTNERSHIP | Licence: NETWORK / 1PC | Processed: Thursday, 11 January 2024 3:54:29 PM

Project: C:\Users\ccfha\OneDrive - TTPP\23344 16 Terry Road, Eastwood\07 Modelling Files\Model\23344-231027.sip9

MOVEMENT SUMMARY

Site: 2.1139 [PM_Terry Rd / Shaftsbury Rd / Midson Rd (Site Folder: Existing + Dev)]

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 96 seconds (Site User-Given Phase Times)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] veh/h	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Shaftsbury Road														
1	L2	148	3	156	2.0	0.198	24.1	LOS B	2.7	19.5	0.65	0.74	0.65	29.5
2	T1	349	1	367	0.3	* 0.711	35.1	LOS C	9.8	68.7	0.96	0.84	0.99	23.7
Approach		497	4	523	0.8	0.711	31.9	LOS C	9.8	68.7	0.87	0.81	0.89	25.2
East: Terry Road														
4	L2	14	0	15	0.0	0.167	33.6	LOS C	1.9	13.6	0.79	0.65	0.79	25.8
5	T1	268	8	282	3.0	0.732	34.1	LOS C	9.0	64.1	0.92	0.82	0.96	17.1
6	R2	113	1	119	0.9	* 0.732	41.5	LOS C	9.0	64.1	0.96	0.88	1.03	14.3
Approach		395	9	416	2.3	0.732	36.2	LOS C	9.0	64.1	0.93	0.83	0.98	16.6
North: Midson Road														
7	L2	78	0	82	0.0	0.420	26.5	LOS B	6.9	48.2	0.75	0.68	0.75	14.2
8	T1	250	0	263	0.0	0.420	20.6	LOS B	6.9	48.2	0.75	0.68	0.75	30.7
9	R2	165	9	174	5.5	* 1.036	113.1	LOS F	8.3	60.7	1.00	1.27	2.13	6.4
Approach		493	9	519	1.8	1.036	52.5	LOS D	8.3	60.7	0.83	0.88	1.21	14.6
West: Terry Road														
10	L2	132	0	139	0.0	0.132	14.2	LOS A	1.7	11.8	0.46	0.69	0.46	27.1
11	T1	202	5	213	2.5	0.553	21.4	LOS B	6.1	43.2	0.84	0.75	0.84	22.8
12	R2	85	0	89	0.0	* 0.553	26.9	LOS B	6.1	43.2	0.84	0.75	0.84	29.8
Approach		419	5	441	1.2	0.553	20.2	LOS B	6.1	43.2	0.72	0.73	0.72	25.8
All Vehicles		1804	27	1899	1.5	1.036	35.7	LOS C	9.8	68.7	0.84	0.81	0.96	19.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID	Crossing	Input Vol.	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
						[Ped ped	Dist] m					
South: Shaftsbury Road												
P1	Full	1	1	42.2	LOS E	0.0	0.0	0.94	0.94	204.9	211.5	1.03
East: Terry Road												
P2	Full	8	8	42.2	LOS E	0.0	0.0	0.94	0.94	205.7	212.5	1.03
North: Midson Road												
P3	Full	1	1	42.2	LOS E	0.0	0.0	0.94	0.94	206.8	214.0	1.03

West: Terry Road												
P4 Full	8	8	42.2	LOS E	0.0	0.0	0.94	0.94	206.4	213.5	1.03	
All Pedestrians	18	19	42.2	LOS E	0.0	0.0	0.94	0.94	206.0	213.0	1.03	

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

SIDRA INTERSECTION 9.0 | Copyright © 2000-2020 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: TTPP - THE TRANSPORT PLANNING PARTNERSHIP | Licence: NETWORK / 1PC | Processed: Thursday, 11 January 2024 3:54:30 PM

Project: C:\Users\ccfha\OneDrive - TTPP\23344 16 Terry Road, Eastwood\07 Modelling Files\Model\23344-231027.sip9

The Transport Planning Partnership
Suite 402 Level 4, 22 Atchison Street
St Leonards NSW 2065

P.O. Box 237
St Leonards NSW 1590

02 8437 7800

info@tpp.net.au

www.tpp.net.au