

PROPOSED COMMERCIAL DEVELOPMENT 1-7 ADLER CIRCUIT, YARRABILBA

TRAFFIC IMPACT ASSESSMENT

For Radiance Spaces Pty Ltd C/- B Planned and Surveyed Pty Ltd

PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL

Approval no: DEV2023/1442

Date: 19 December 2024



LAMBERT & REHBEIN
ENGINEERS • MANAGERS • SCIENTISTS

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Revision	Date	Description	Author	Verifier	Approver
A	07/02/23	DRAFT	GA	MB	
B	13/05/24	DRAFT	II	MB	
C	21/06/24	FINAL	II	MB	AG
D	15/11/24	FINAL	II	MB	AG

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 PRINCIPAL TRAFFIC ENGINEER
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1. INTRODUCTION

Lambert & Rehbein (SEQ) Pty Ltd has been commissioned by Radiance Spaces Pty Ltd C/- B Planned and Surveyed Pty Ltd to undertake a Traffic Impact Assessment for the proposed mixed-use development located at 1-7 Adler Circuit, Yarrabilba. The site is formally described as Lot 10 on SP296372.

The proposed development consists of Mixed-Use Development. The tenancies and the respective GFAs are as follows:

- Health - 757m²;
- Food - 452m²; and
- Multiple dwellings - 34 Units.

The proposed site layout, prepared by Reddog Architects, has included in **Appendix A**.

This report has been undertaken to assess the potential impact that the proposed development could have on the external road network surrounding the site, and is set out as follows:

Section 2 discusses the existing land use and traffic arrangements in the vicinity of the proposed development site.

Section 3 provides details of the proposed development, including an assessment of the site layout, access, and servicing arrangements.

Section 4 displays the calculations and assumptions used to establish the forecast generation and distribution of the proposed development traffic.

Section 5 summarises the key outcomes of the traffic investigations.

Lambert & Rehbein has derived the data in this report primarily from the data provided by the Client, and site investigation undertaken in August 2021.

This report has been prepared on behalf of and for the exclusive use of the Client, and is subject to and issued in connection with the provisions of the agreement between Lambert & Rehbein and the Client. Lambert & Rehbein accepts no liability or responsibility whatsoever for or in respect of any use of or reliance upon this report by any third party.

2. CONTEXT OF THE DEVELOPMENT SITE

This section of the report describes the context of the proposed development and includes a description of the existing road network, car parking requirements, adjacent land uses, and existing public transport facilities servicing the site.

2.1 DEVELOPMENT SITE

The proposed mixed use development site is located at 1-7 Adler Circuit, Yarrabilba Drive, Yarrabilba, QLD 4207, formally described as Lot 10 on SP296372. The development site is currently vacant land. The development site is a District Centre within the Urban Living Areas under the Yarrabilba Development Scheme.

Figure 2-1 below shows the proposed development site in the context of the surrounding road network and the linkages to the external network.



Figure 2-1 Proposed Development Site (Source Queensland Globe)

2.2 ADJACENT ROAD NETWORK

Inspection of the land use, road condition, intersection characteristics, public transport facilities, pedestrian access, and cyclist provisions surrounding the proposed development site have been undertaken in preparation of this assessment. This was completed to collect information about the road network operation, safety characteristics, public transport network and specific network / land-use factors potentially of influence to the proposed development.

2.2.1 YARRABILBA DRIVE

Yarrabilba Drive runs along the east-western frontage of the proposed development site. Yarrabilba Drive is classified as a 'Primary Road' under jurisdiction of Logan City Council (LCC) as per Yarrabilba Urban Development Area Development Scheme. The general form of Yarrabilba Drive is shown in **Figure 2-2** and was found to have the following characteristics at the site frontage:

- Two-way, two-lane road widening to a two-way four-lane median divided road at the intersection with Waterford-Tamborine Road;
- Full kerb and channel provided on both sides of the road near the adjacent intersection;
- Bicycle lane on northbound and southbound approaches near the adjacent intersection;
- Footpath provided along the site frontage, as noted in **Section 2.4.2**; and
- Posted Speed limit of 60km/hr.



Figure 2-2 Yarrabilba Drive at Site Frontage (Facing West-North)

2.3 PUBLIC TRANSPORT

The development site is well connected to the existing public transport facilities, as shown in **Figure 2-3**. There are bus stops within a 400m walking catchment of the site. The Translink bus routes that service the development site are summarised in .

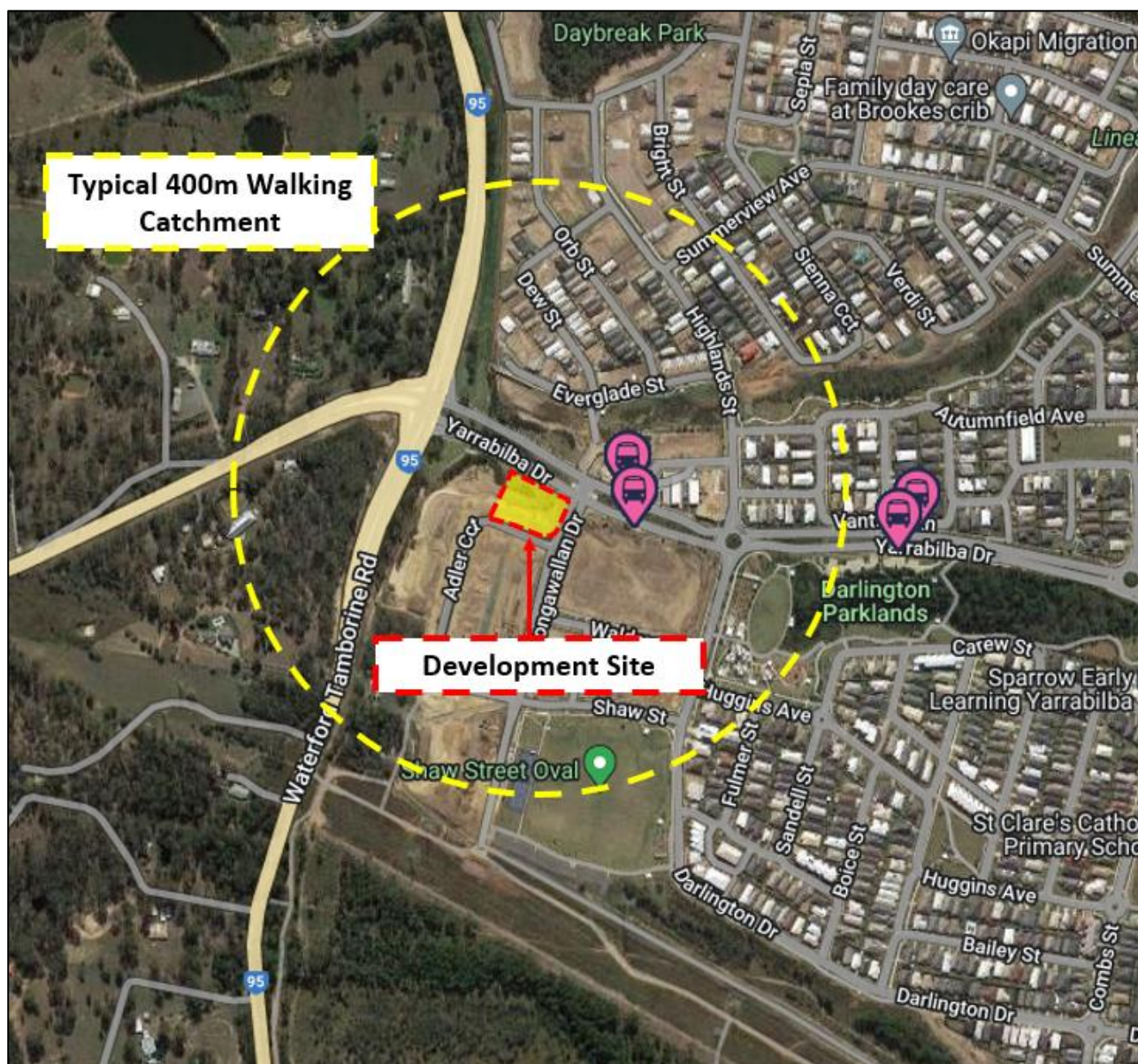


Figure 2-3 Surrounding Translink Bus Stop Locations

STOP DESCRIPTION (# TRANSLINK ID)	ROUTE ID	ROUTE DESCRIPTION
#320619	587	Yarrabilba to Waterford, Loganlea Station, Hospital, TAFE Inbound
#320620	587	Logan TAFE to Yarrabilba via Hospital, Station, Waterford Outbound

2.4 ACTIVE TRANSPORT

The development site is reasonably well serviced by existing active transport facilities, as seen in **Figure 2-4**. Pedestrian footpaths are provided on the north and south sides of Yarrabilba Drive, as illustrated via green lines in the image. Signalised pedestrian crossings are provided at the intersection as indicated via red arrows in the image. Marked bicycle lanes are provided surrounding the site and intersection, as illustrated by the yellow lines on the image. An uncontrolled pedestrian crossing appears to be available which is illustrated by the blue arrow in the figure below.

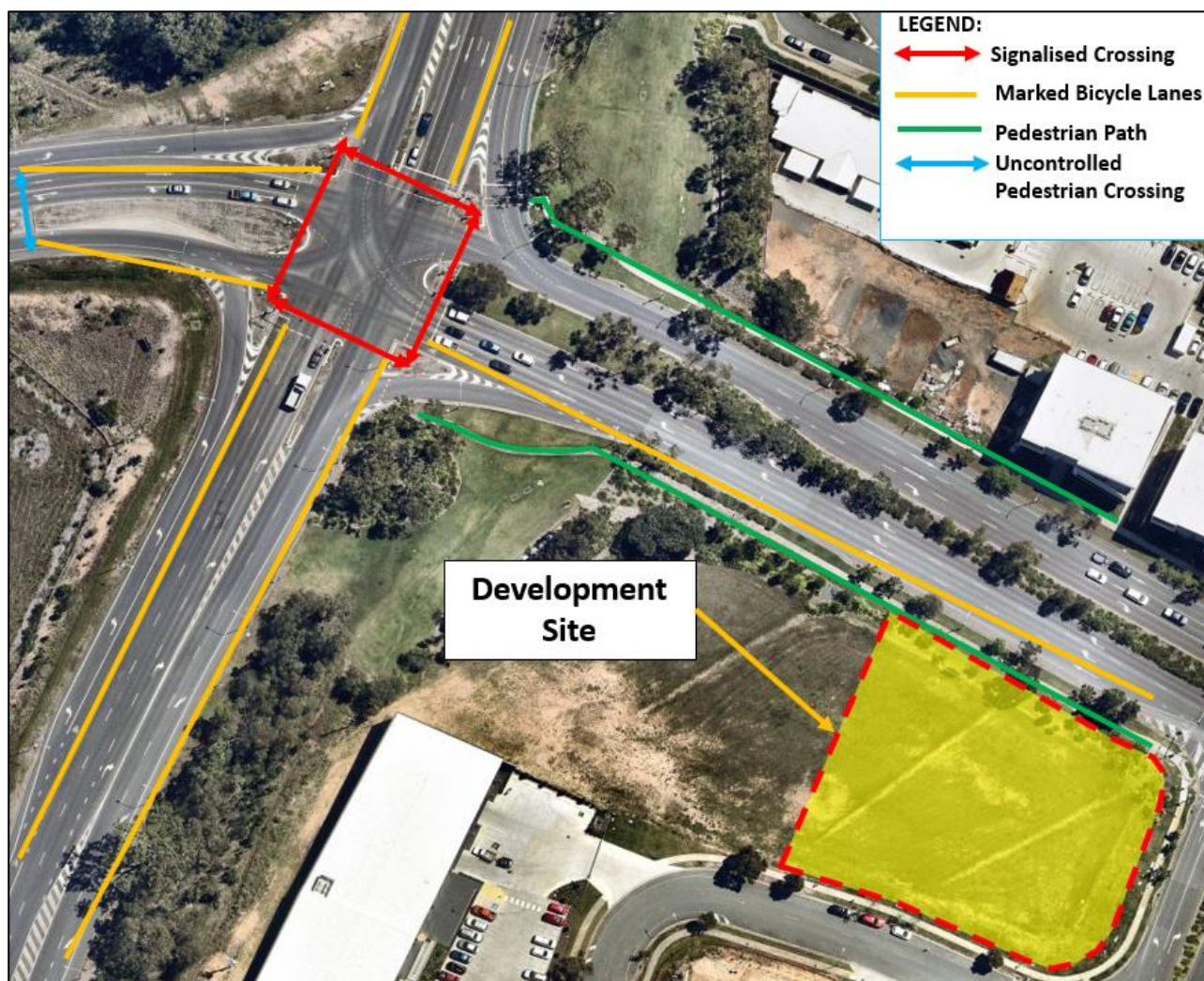


Figure 2-4 Surrounding Pedestrian and Bicycle Pathway Network

We note that bicycle parking for residents and visitors will be provided throughout the development.

2.5 FUTURE INFRASTRUCTURE UPGRADES

Review of LCC's *Local Government Infrastructure Plan* (LGIP) found no future infrastructure upgrades to the road and active transport network in close proximity of the site.

A review of DTMR's QTRIP found that there were no planned infrastructure works in the vicinity of the development site.

The proposed mixed use development is located within an established road network developed as part of the Yarrabilba Plan of Development (PDA) development scheme.

3. DETAILS OF THE PROPOSED DEVELOPMENT

This section of the report describes the nature of the proposed development, the proposed access, car parking and servicing arrangements.

3.1 PROPOSED DEVELOPMENT

The proposed development consists of various Mixed-Use Development uses including health, food and multi dwelling units. The proposed land uses and their respective GFAs are illustrated below in **Table 3-1**. The proposed site layout, prepared by Reddog Architects, has been included in **Appendix B**.

Table 3-1: Proposed Land Uses

USE	GROSS FLOOR AREA (GFA)
Health Care Services	757m ²
Food Premises	452m ²
Multi-dwelling	34 Units

3.2 ACCESS ARRANGEMENTS

The proposed development gains access to the external road network via two (2) accesses to Adler Circuit. The proposed access arrangements are illustrated in the proposed site layout, prepared by Reddog Architects, has been included in **Appendix B**.

All accesses are to be designed as rural-style crossovers generally in accordance with IPWEAQ Standard Drawing RS-056. While all accesses have been tested and can accommodate the largest design vehicles, the design of the crossovers should be refined during detailed design.

3.3 CAR PARKING REQUIREMENTS

As outlined in the enclosed development approved *Precinct one – Lot 010 and 011 District Centre Plan of Development* plan, the PDA specifies the car parking requirements for various uses. The car parking rates and requirements for the proposed uses are outlined in **Table 3-2**.

Table 3-2: Parking Requirements

USE	PARKING RATE REQUIRED	YIELD	MIN PARKING REQUIRED		PARKING PROVIDED
Health Care Services	1 space per 30m² GFA	757m²	25.2	47.8	52
Food Premises (three tenancies)	1 space per 20m² GFA	452m²	22.6		
Multiple Dwellings (Units)	1.25 parking spaces per unit	34 units	42.5		46
Total			91 (90.3)		98

As summarised in **Table 3-2**, the total minimum parking requirement for the proposed development is 91 parking spaces. The proposed development provides a total of 98 parking spaces, meeting PDA's minimum parking requirements.

3.4 BICYCLE PARKING REQUIREMENTS

LCC's Servicing, access and parking code specifies the bicycle parking requirements for various uses. The bicycle parking rates and requirements for the proposed uses are outlined in Table xx.

Table 3-3 Parking Design Compliance

USE	PARKING RATE REQUIRED	YIELD	MIN PARKING REQUIRED		PARKING PROVIDED
Health Care Services	1 space per 400m² GFA for employees	757m²	2	6	21
	1 visitor space per 200m² GFA		4		
Food Premises (three tenancies)	1 space per 30m² GFA	452m²	15		
Multiple Dwellings (Units)	1 space per 3 dwelling units	34 units	12	15	15
	1 visitor space per 12 dwelling units		3		
Total			36		36

We also note that 15 bicycle parking spaces for the residential component of the development will be provided, as per local council requirements, within the site basement and additional bicycle parking for commercial use will be provided to encourage active transport to and from the site.

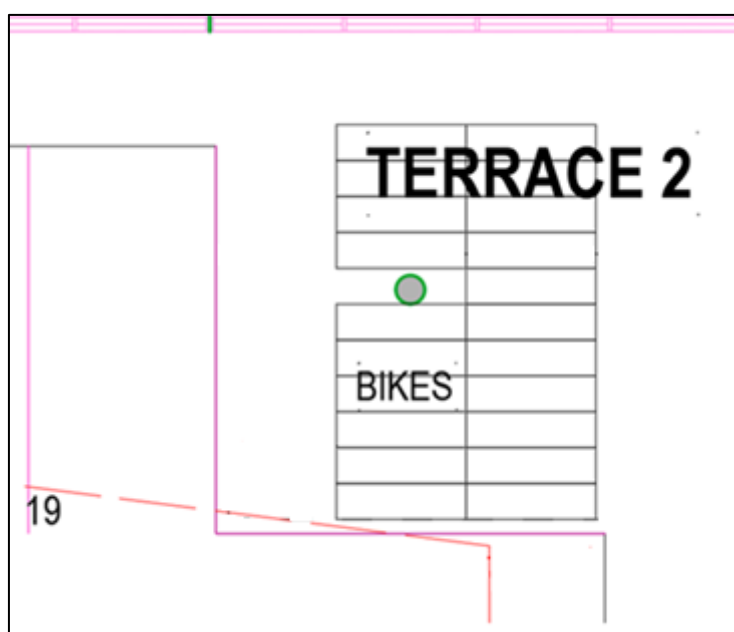


Figure 3-1 Provision of Commercial Bicycle Parks

3.5 INTERNAL CAR PARKING DESIGN

Table 3-4 identifies the characteristics of the proposed parking area with respect to the requirements of AS2890.1. The last column identifies the compliance of each design aspect.

Table 3-4 Parking Design Compliance

DESIGN ASPECT	PROPOSED PROVISION	AS2890 SET	COMPLIANCE
Parking Bay Length - Visitor Bay 90°	5.4m	5.4m	AS2890.1 Compliant
Parking Bay Width - Visitor Bay 90°	2.6m	2.6m	AS2890.1 Compliant
Parking Bay Length - Staff Bay 90°	5.4m	5.4m	AS2890.1 Compliant
Parking Bay Width - Staff Bay 90°	2.4m	2.4m	AS2890.1 Compliant
Parking Bay Width - PWD Bay	2.4m plus 2.4m shared area	2.4m plus 2.4m shared area	AS2890.1 Compliant
Parking Aisle Minimum Width	6.0m	5.8m	AS2890.1 Compliant
Circulation Road - Two-way	6.2m	5.5m	AS2890.1 Compliant
Circulation Road - One-way	3.5m	3.0m	AS2890.1 Compliant

As illustrated in **Table 3-4**, the parking area has been designed generally in accordance with the minimum requirements of the AS2890.1.

3.6 SERVICING REQUIREMENTS

A review of the site's anticipated service requirements has been completed. The findings indicate that Medium Rigid Vehicles (MRVs) will be predominantly used instead of Heavy Rigid Vehicles (HRVs) for the proposed development, based on the following considerations:

- The 275m² Food and Drink outlet is anticipated to be divided into at least two (2) tenancies, with each tenancy's gross floor area (GFA) being less than 200m². These smaller tenancies will likely require servicing only by a Small Rigid Vehicle (SRV) or Medium Rigid Vehicle (MRV), in line with *Logan Planning Scheme 2015 Servicing, Access and Parking Code*, which specify MRVs as the appropriate service vehicle for Food and Drink outlets with a GFA under 200m².
- The vast majority of the Multiple dwellings are two-bedroom units which can only accommodate a certain amount of furniture and are far more likely to be serviced by an MRV as the furniture removalist vehicle.
- The retail/health services/commercial area requires servicing by an SRV (health care services), MRV (office less than 1,000m²), or MRV (shop less than 500m²). Again, this floor area is likely to be split into multiple tenancies, which require only require servicing by an MRV.

The proposed development will therefore require servicing by an MRV only, imposed through warning signage at the driveway ingress. There are several smaller SRV and/or MRV type removalist trucks available

that are suitable for moving the contents of smaller two-and-three-bedroom units which will infrequently access the site.

Swept path assessments demonstrating the manoeuvres of a MRV into the dedicated loading bay and WCV circulating the site have been attached in **Appendix C**.

All servicing activities will be conducted on the ground floor in open-air conditions. Internal traffic circulation will remain uninterrupted while the MRV (Medium Rigid Vehicle) and WCV (Waste Collection Vehicle) are stationary in the loading zone.

4. IMPACT ASSESSMENT

This section provides details of the potential impact that the development traffic could have on the operation of the surrounding external road network at the opening year of the proposed development.

4.1 TRIP GENERATION

Additional traffic associated with the proposed development has been forecasted based on RMS (formerly RTA) Guide to Traffic Generating Developments and DTMR's Open Source Data.

The traffic generation rates and in / out directionality of movements adopted for the analysis within this report is documented in **Table 4-1**. It should be noted that the Health rates for the weekday and weekend peak have been calculated from DTMR's open source data.

Table 4-1 Generation and Directionality Rates

Land Use	Generation Rate			
	AM Peak	PM Peak	AM Peak	PM Peak
Health	5.5 veh/100m ²	3.8 veh/100m ²	50% In / 50% Out	50% In / 50% Out
Food (Restaurants)	5 veh/100m ²	5 veh/100m ²	50% In / 50% Out	50% In / 50% Out
Multiple Dwellings (Units)	0.29 trips/unit	0.29 trips/unit	20% In / 80% Out	70% In / 30% Out

As such, based on the above guidelines and assumptions, the estimated traffic generated by the proposed development, is documented in **Table 4-2**.

Table 4-2 Development Traffic Generation

Land Use	Yield	AM Peak (In)	AM Peak (Out)	PM Peak (In)	PM Peak (Out)
Health	757m ²	21	21	15	15
Food	452 m ²	10	10	10	10
Multiple Dwellings (Units)	34 units	2	8	8	2
Total Trips per Peak		33 veh/hr	39 veh/hr	33 veh/hr	27 veh/hr
		72 veh/hr		60 veh/hr	

As illustrated in **Table 4-2**, the proposed development is anticipated to generate 72 vehicles/hr in the AM peak period (combined in and out) and 60 vehicles/hr in the PM peak period (combined in and out).

4.2 IMPACT ASSESSMENT

The site is located within an established road network developed as part of the Yarrabilba PDA development scheme dated 2011. Immediately adjacent to the site are high order roads and signalised intersections that have been developed to in anticipation of the development of Yarrabilba PDA, including the subject land.



Figure 4-1 Surrounding Road Network

We understand that the proposed development site has an existing approval for a mixed-used development with a range of approved land uses including Health Care Services, Food and Residential land uses. It is considered reasonable to assume that the proposed development will generally operate as planned in the Yarrabilba PDA and will not adversely affect the safety and efficiency of the external road network, for the following reasons:

- the site has a relatively low number of residential units (34 units) – the major driver of traffic movements during the road network peaks,
- the proposed land uses operating with varying peak periods;
- the site provides internal employment opportunities that will reduce external vehicular trips;
- high order pedestrian infrastructure and provision of bicycle parking to promote active transport to and from the site;
- available public transport service along Yarrabilba Drive to promote public transport to and from the site; and
- majority of traffic to be generated within the Yarrabilba catchment area.

5. SUMMARY

Lambert & Rehbein (SEQ) Pty Ltd has been commissioned by Radiance Spaces Pty Ltd C/- B Planned and Surveyed Pty Ltd to undertake a Traffic Impact Assessment for the proposed mixed-use development located at 1-7 Adler Circuit, Yarrabilba. The site is formally described as Lot 10 on SP296372.

The proposed development consists of Mixed-Use Development. The tenancies and the respective GFAs are as follows:

- Health - 757m²;
- Food - 452m²; and
- Multiple dwellings - 34 Units.

The proposed site layout, prepared by Reddog Architects, has included in **Appendix A**.

The proposed development gains access to the external road network via two (2) accesses to Adler Circuit.

The proposed access arrangements are illustrated in the proposed site layout, prepared by Reddog Architects, has been included in **Appendix B**.

All accesses are to be designed as rural-style crossovers generally in accordance with IPWEAQ Standard Drawing RS-056. While all accesses have been tested and can accommodate the largest design vehicles, the design of the crossovers should be refined during detailed design.

As summarised in **Table 3-2**, the total minimum parking requirement for the proposed development is 91 parking spaces. The proposed development provides a total of 98 parking spaces, meeting PDA's minimum parking requirements.

The proposed development provides suitable service vehicle area to accommodate the anticipated vehicles, as demonstrated in the swept path assessments included in **Appendix C**.

The site is located within an established road network developed as part of the Yarrabilba PDA development scheme dated 2011. Immediately adjacent to the site are high order roads and signalised intersections that have been developed to in anticipation of the development of Yarrabilba PDA, including the subject land.

We understand that the proposed development site has an existing approval for a mixed-used development with a range of approved land uses including the proposed Business, Health Care Service, Food and Residential land uses. It is considered reasonable to assume that the proposed development will generally operate as planned in the Yarrabilba PDA and will not adversely affect the safety and efficiency of the external road network.

APPENDIX A – MASTERPLAN

LEGEND

-  EXISTING LOT BOUNDARY
-  STAGE BOUNDARY
-  NEW ROAD

AREA OF ALLOTMENTS	6.2681 ha
AREA OF NEW ROAD (INTERNAL)	0.8808 ha
AREA OF NEW ROAD (WATERFORD-TAMBORINE ROAD)	0.3663 ha

PLANS AND DOCUMENTS
 referred to in the PDA APPROVAL

22 JAN 2016

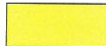
MEDQ



RECONFIGURATION OF A LOT RESUBDIVISION PART OF PRECINCT 1 DISTRICT CENTRE

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LEGEND

-  MIXED USE DEVELOPMENT (EMPLOYMENT FOCUSED)
-  BUILDING DEVELOPMENT WILL BE SETBACK A MINIMUM OF 5.0m TO THE STREET BOUNDARY. SETBACK AREA IS TO INCLUDE A 5.0m LANDSCAPE STRIP.
-  OPTIONAL BUILD TO BOUNDARY DEVELOPMENT ON UP TO 60% OF THIS FRONTAGE
-  YARRABILBA ENTRY IDENTITY ELEMENTS INCORPORATING FENCING
-  NO VEHICULAR ACCESS
-  PRECINCT ONE BOUNDARY

HIGHLANDS
STREET

APPROVED USES AND PARKING RATES TABLE	
Approved uses:	Car Parking Rate:
- Business	1 space/30sqm GFA
- Fast Food Premises	1 space/20sqm GFA
- Food Premises	1 space/20sqm GFA
- Health Care Services	1 space/30sqm GFA
- Market	
- Car Park	
- Community Facility	5 spaces + 1 space/30sqm GFA
- Education Establishment	1 space/2 staff
- Indoor Entertainment	1 space/20sqm GFA
- Showroom	1 space/40sqm GFA
- Short Term Accommodation	1 space/unit (small >75sqm)
- Utility Installation	1.25 space/unit above 75sqm

Where a rate of carparking is not defined in the above table, the applicant is responsible for providing evidence in support of the carparking proposed to be provided.

THIS PLAN MUST BE READ IN CONJUNCTION WITH NON-RESIDENTIAL PLAN OF DEVELOPMENT COMMON CLAUSES DOCUMENT (YB-P01-NRPOD161118 SHEET 3 OF 3) Compliance Assessment - Prior to commencement of works obtain "Compliance Assessment" endorsement from the nominated assessing authority (including engineering works).

Gross Leaseable Areas for the District Centre 1 shall comply with the caps approved in PDA approval DEV 2011-187

NOTE:
The boundaries shown hereon are subject to detailed engineering design, final survey and approval of subsequent permits as necessary.



- NOTE**
- (i) Zero setbacks to side and rear boundaries will be permitted subject to other provisions of the Plan of Development, daylight access, overshadowing, sightlines and constraints affecting adjoining development sites.
 - (ii) The Yarrabilba entry identity landscape, including fencing, plantings and architectural elements must be retained in the development of the blocks. Optional Build to Boundary development will be permitted for up to 60% on the eastern edge of the Yarrabilba identity landscape element, assuming that any building has sufficient architectural merit. Any external site activities such as parking or storage east of the Yarrabilba Identity Landscape must be screened behind a solid fence constructed of materials complementary to the buildings on the site.
 - (iii) All advertising devices are to be in accordance with Logan City Council's Planning Scheme.
 - (iv) Buildings may cover up to 80% of the site, providing that:
 - All other planning and development requirements of the Plan of Development are complied with
 - Development is in context with, and visually compatible with the appearance of any neighbouring buildings
 - Adequate pedestrian access and amenity is provided at ground level
 - (v) Maximum building height will be 15m. Buildings greater than 15m in height will require a separate development application that is subject to public notification.
 - (vi) The ground floor of all buildings must have a minimum floor to floor height of 3.5m.
 - (vii) Maximum podium height of 2 storey. Above podium 3.0m minimum setback.
 - (viii) Buildings located on corner lots must be designed to address both street frontages.
 - (ix) Buildings must provide legible entry points for both pedestrians and vehicles.
 - (x) Car parking will be provided in line with the rates shown in the Approved Uses and Parking Rates Table. A time of use analysis can be undertaken to reduce car parking requirement by up to 25% where peak car parking uses do not occur at the same time.
 - (xi) Shade in car parking areas will be provided. If using trees, not less than one tree per six parking spaces must be provided.
 - (xii) Car parking and public areas will be provided with lighting for public safety.
 - (xiii) Shared parking and access at the side and rear of lots is encouraged between adjoining properties to improve parking efficiency.
 - (xiv) All refuse, materials, plant areas and services will be suitably screened to all boundaries.
 - (xv) All air conditioning, lift rooms, ventilation plant and other equipment located on the roof or externally around the buildings will be treated as an integral part of the building form and screened from view with materials consistent with the building.
 - (xvi) Where buildings face public realm areas including streets, parks and walkways, significant overlooking and surveillance opportunities must be incorporated with positive CPTED practice. Where public use walkways are incorporated between or within sites, the buildings must front activated zones to these walkways in accordance with positive CPTED practice.

PLANS AND DOCUMENTS referred to in the PDA APPROVAL

22 JAN 2016

MEDQ

PRECINCT ONE - PLAN OF DEVELOPMENT PART OF PRECINCT ONE DISTRICT CENTRE

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0 15 30 45 60 75 m
Scale 1:1,500 at A3

North



- NOTE
- (i) Zero setbacks to side and rear boundaries will be permitted subject to daylight access, overshadowing, sightlines and other constraints affecting adjoining development sites.
 - (ii) Building development along the Waterford Tamborine Road must be setback a minimum of 5.0 metres. This area is to be landscaped and all external uses screened from Waterford Tamborine Road.
 - (iii) Buildings may cover up to 80% of the site, providing that:
 - All other planning and development requirements of the Plan of Development are complied with
 - Development is in context with, and visually compatible with the appearance of any neighbouring buildings
 - Adequate pedestrian access and amenity is provided at ground level
 - (iv) Maximum building height for non-residential buildings will be 15m. Non-residential buildings greater than 15m in height will require a separate development application that is subject to public notification.
 - (v) Buildings located on corner lots must be designed to address both street frontages.
 - (vi) Buildings must provide legible entry points for both pedestrians and vehicles.
 - (vii) All street frontages with the exception of Waterford Tamborine Road not developed as build to boundary buildings will require a 2.0m minimum width landscape strip, except at vehicular and pedestrian access points. The requirement for landscaping may be waived if greater achievements can be gained in terms of architectural quality and visual interest in the buildings. Car parking will be provided in accordance with the Approved Uses and Parking Rates Table and designed to comply with Australian Standards. A time of use analysis can be undertaken to reduce car parking requirement by up to 25% where peak car parking uses do not occur at the same time.
 - (viii) Shade trees in car parking areas will be provided at the rate of not less than one tree per six parking spaces.
 - (ix) Canopy trees and landscape will be provided by Lendlease within the street and verge. These must be retained as part of the development and incorporated into any final verge surface treatments.
 - (x) All advertising devices are to be in accordance with Logan City Council's Planning Scheme.
 - (xi) Car parking and public areas will be provided with lighting for public safety.
 - (xii) Shared parking and access at the side and rear of lots is encouraged between adjoining properties to improve parking efficiency.
 - (xiii) All refuse, materials, plant areas and services will be suitably screened to all boundaries.
 - (xiv) All air conditioning, lift rooms, ventilation plant and other equipment located on the roof or externally around the buildings will be treated as an integral part of the building form and screened from view with materials consistent with the building.
 - (xv) Where buildings face public realm areas including streets, parks and walkways, significant overlooking and surveillance opportunities must be incorporated with positive CPTED practice. Where public use walkways are incorporated between or within sites, the buildings must front activated zones to these walkways in accordance with positive CPTED practice.
 - (xvi) Bike parking will be provided at the rate of one space per five car parking spaces.
 - (xvii) Bike and end of journey facilities must be included within the development.
 - (xviii) Service areas will not be permitted between the building and the street frontage.
 - (xix) Notwithstanding note (xix) above, service areas are permitted between the building and road frontage for Lots 003 - 009 and 021 - 022 where screened and not resulting in concealed entrapment zones.
 - (xx) Notes relating to building, landscaping, advertising devices, and lighting are not to be in conflict with the 'Powerlink Easement Special Requirements' for lots 019, 020 and 026.



LEGEND

- EMPLOYMENT FOCUS
- OPTIONAL BUILD TO STREET BOUNDARY DEVELOPMENT ON UP TO 60% OF THE STREET FRONTAGE
- NO VEHICULAR ACCESS
- BUILDING DEVELOPMENT WILL BE SETBACK A MINIMUM OF 5.0m TO THE BOUNDARY. A POOL FENCE STYLE TRANSPARENT FENCE OR SIMILAR IS REQUIRED AND THIS SETBACK AREA IS TO BE LANDSCAPED.
- NO BUILDINGS PERMITTED IN LAND UNDER POWERLINK EASEMENTS (REFER POWERLINK EASEMENT SPECIAL REQUIREMENTS ON SHEET 3 OF THIS POD)

APPROVED USES AND PARKING RATES TABLE	
Approved uses:	Car Parking Rate:
- Business	1 space/30sqm GFA
- Emergency Services	
- Food Premises - Maximum of 500sqm for POD area	1 space/20sqm GFA
- Health Care Services (Lots 3-9 only) Max 750sqm GFA for POD area	1 space/30sqm GFA
- Indoor Sport and Recreation (excluding Convention Centre and Amusement Arcade) Max 2500sqm GFA for POD area	15 spaces + 1 space per 100sqm GFA
- Indoor Entertainment	1 space/20sqm GFA
- Low Impact Industry	2 spaces/tenant + 1/100sqm GFA
- Research and Technology Facility	1 space/tenant + 1/100sqm GFA
- Service Industry	1 space/60sqm GFA
- Shop - Maximum of 250sqm for POD area	1 space/20sqm GFA
- Showroom	1 space/40sqm GFA
- Utility Installation	
- Veterinary Hospital (Lot 23 only)	1 space/30sqm GFA
- Warehouse	1 space/2 employees or, 1 space/100sqm GFA whichever is greater

Where a rate of carparking is not defined in the above table, the applicant is responsible for providing evidence in support of the carparking proposed to be provided.

THIS PLAN MUST BE READ IN CONJUNCTION WITH NON-RESIDENTIAL PLAN OF DEVELOPMENT COMMON CLAUSES DOCUMENT (YB-P01-NRPOD160120 SHEET 3 OF 3) Compliance Assessment - Prior to commencement of works obtain "Compliance Assessment" endorsement from the nominated assessing authority (including engineering works).

Gross Leaseable Areas for the District Centre 1 shall comply with the caps approved in PDA approval DEV 2011-187

NOTE:
The boundaries shown hereon are subject to detailed engineering design, final survey and approval of subsequent permits as necessary.

PRECINCT ONE - PLAN OF DEVELOPMENT PART OF PRECINCT ONE DISTRICT CENTRE

NOTE: This plan is indicative only, and specific uses, road alignment, boundaries, setbacks, and building layout shown may vary due to detailed design consideration. (©2015 Lend Lease Communities (Australia). All rights reserved. Except as permitted by Lend Lease, no part of this publication may be reproduced or distributed in any form or by any means, or stored in a database or retrieval system, without the permission of Lend Lease.

DEVELOPMENT STANDARDS

Engineering Standards

All engineering works are to comply with the PDA Guideline No. 13 Engineering Standards, dated May 2015. Connect the development to the relevant authority assets (stormwater water, sewer, utilities) in accordance with the authority standards and conditions. Upon completion and certification of the works the developer shall prepare and provide to the Economic Development Queensland (EDQ) "As Constructed" plans including an asset register, checked by a Registered Professional Engineer Queensland (RPEQ-Civil).

Emissions (including air, water and soil pollutants, noise, vibration, heat, light, radioactivity and electromagnetic radiation) and **hazards** must be managed in accordance with:

- the Environmental Protection (Air) Policy 2008
- the Environmental Protection (Noise) Policy 2008
- the Work Health and Safety Act 2011 and Work Health and Safety Regulation 2011

Energy Efficiency

Buildings must be oriented to incorporate appropriate passive solar design and day lighting, while avoiding unwanted heat gain:

- All external glazing must comply with BCA Part J2.4 using glazing calculation Method 2 Energy Index Option B.
- Design external shading devices to protect glazed areas on the north, east, and west sides of the building.
- External wall insulation to be minimum total R-Value of R1.0 for all non-air-conditioned spaces and R2.0 for all air-conditioned spaces. Metal external wall sheeting to be insulated from metal studs or frames by a minimum R0.2 thermal break.
- External wall colours and roof colour to have a solar absorbance not more than 0.45 (i.e. avoid excess use of dark colours and zincalume).
- Concrete block or slab external walls must be painted.
- Roof insulation to be minimum total R-value of R1.5.
- Where appropriate, buildings must include provisions for natural ventilation, such as roof ventilators and operable windows.

Car Parking

All car parking / off street vehicle manoeuvring is developed in accordance with AS 2890.1 to 6 and Austroads AGTM11-08 Guide to Traffic Management Part 11: Parking.

The **main entry** to the building is at the front of the building, or otherwise is clearly visible and identifiable from the street; and is directly accessible from the car parking area or street.

Buildings are shaped, designed and finished so that the maximum length of unvaried or unarticulated wall does not exceed 20 metres (unless facing a side or rear property boundary);

Roofing materials are precoloured and non-reflective;

Service vehicles can enter and leave the Site in a forward direction.

Where an **on-site refuse collection** area is provided, access and manoeuvring areas are designed and provided to enable access by a refuse collection vehicle based on the Design Service Vehicle in *Austroads/Standards Australia HB72 Design Vehicles and Turning Path Templates*.

All premises are identified by the provision of a street number in a prominent location, preferably near the site entry, ie. on the kerb or letterbox or by signage on the building or site.

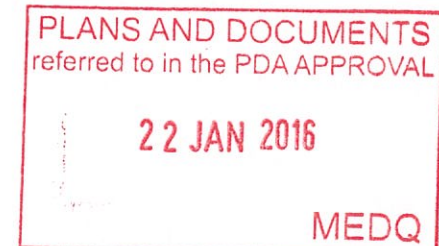
The design and provision of access driveways, manoeuvring areas and loading and unloading facilities for service vehicles complies with *Australian Standard AS 2890.2 2002 Off Street Parking Commercial Vehicle Facilities*.

The parking area meets the design requirements of *Australian Standard AS 2890.1 2004 Parking Facilities Off Street Car Parking*.

Compliance assessment & Payment of Infrastructure Charges to be undertaken in accordance with the applicable Conditions of Approval.

Lots 019, 020 & 026 Powerlink Easement Special Requirements:

- Development within the easement shall comply with the Powerlink Management of Co-use Guidelines and easement documents.
- Any compliance assessment application shall be forwarded to Powerlink for sign off prior to formal lodgement with EDQ.
- All uses and works within the easement require the approval of Powerlink and must comply with the easement document requirements.
- No buildings shall be located within easement.
- The Powerlink Easement Special Requirements override any relevant POD provisions relating to building, landscaping, advertising devices and lighting.



PRECINCT ONE - PLAN OF DEVELOPMENT PART OF PRECINCT ONE DISTRICT CENTRE - COMMON CLAUSES DOCUMENT

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LEGEND

- STAGE BOUNDARY
- PROPOSED KERB FACE
- PROPOSED ROAD CENTRELINE
- PROPOSED FOOTPATH
- PROPOSED LINEMARKING (EDGE)
- PROPOSED LINEMARKING (CONTINUITY LINE)
- PROPOSED LINEMARKING (GIVE WAY LINE)



Traffic Signals
(see Condition 11 of PDA development approval DEV2015/739)

AMENDED IN RED

20 JAN 2016

By: OZEN HASLAM (name)
MEDQ

EXISTING DWELLING TO BE
REMOVED DURING STAGE 5
CONSTRUCTION

PROPOSED LEFT-IN
LEFT-OUT INTERSECTION GEOMETRY TO
BE CONFIRMED DURING DETAILED DESIGN

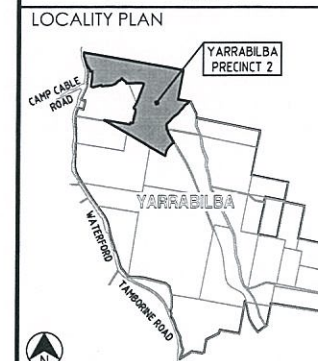
EXISTING
SHOPPING
CENTRE

EXISTING
TAVERN

PLANS AND DOCUMENTS
referred to in the PDA APPROVAL
22 JAN 2016
MEDQ

SCALE
10 5 0 10 20 30 40 50 60 70 80 90 100m
1: 1000 (A1 UNREDUCED)

DO NOT SCALE THIS DRAWING
IF IN DOUBT - ASK!



REVISIONS

No	Description	Date	By
A	APPROVAL	APR 15	LOCC
B	GENERAL REVISIONS	27/07/15	MDW
C	STAGE 3 LOTS AMENDED	03/11/15	EL
D	STAGE 5 ADDED AND BOYS AMENDED	17/11/15	EL

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W rpsgroup.com.au

Client



Project

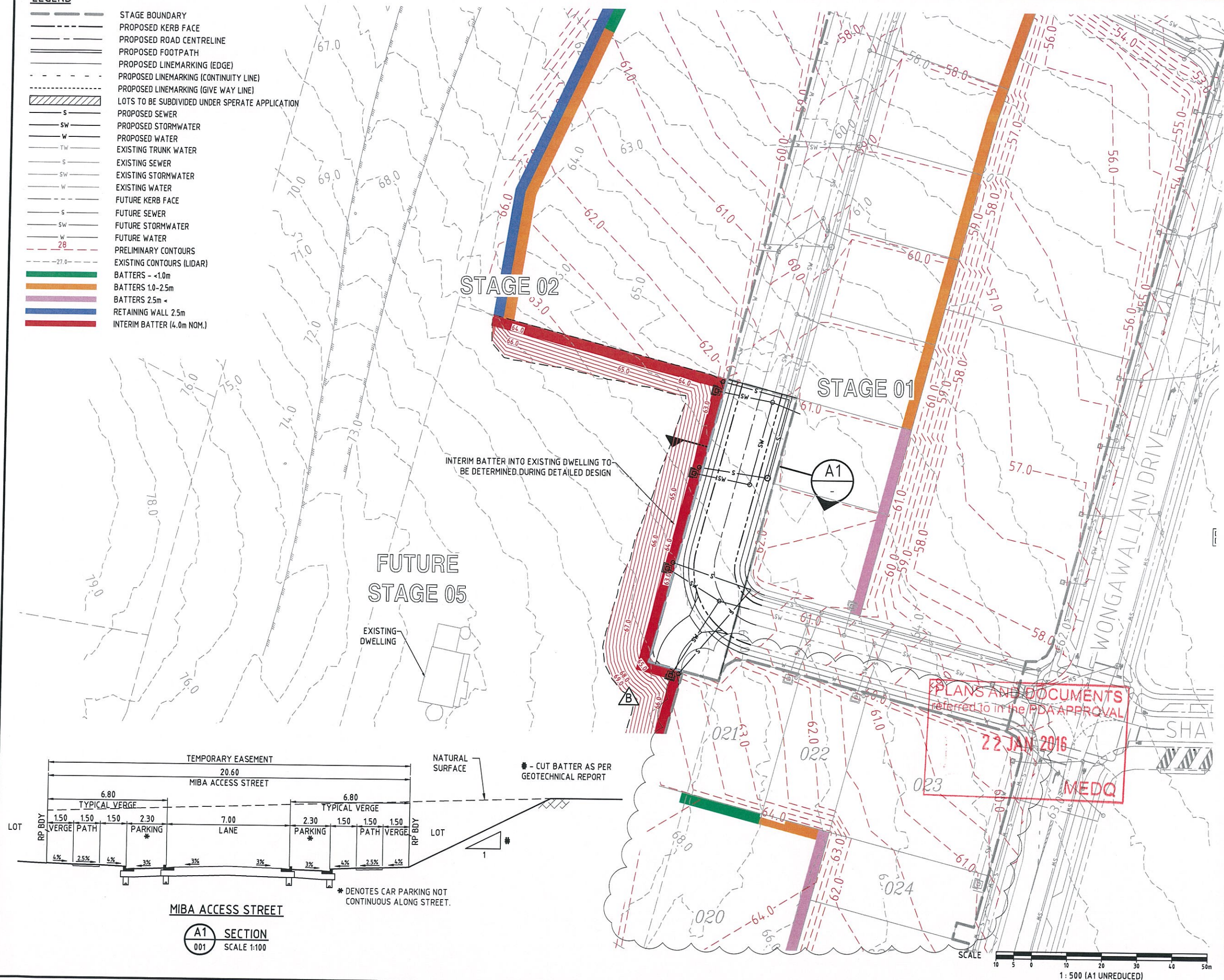
YARRABILBA
PRECINCT 1
MIBA AREA
FUNCTIONAL DRAWINGS

KN GROUP PTY LTD
CONSULTING ENGINEERS

LEVEL 2 - 71 GREY STREET
SOUTH BRISBANE
QUEENSLAND 4101
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FAX 07 3017 1911
EMAIL kn@knpl.com.au
ABN 35 112 053 611

Approved - RPEQ 12805			
Drawing Title VILLAGE CENTRE STAGE 3 ROADWORKS PLAN			
Drawn EL	Designed EL	Checked G8G	Date APR 15
Scale AS SHOWN			Sheet 1 of 1
Drawing No A1		Revision 15-103-SK001 D	

	STAGE BOUNDARY
	PROPOSED KERB FACE
	PROPOSED ROAD CENTRELINE
	PROPOSED FOOTPATH
	PROPOSED LINEMARKING (EDGE)
	PROPOSED LINEMARKING (CONTINUITY LINE)
	PROPOSED LINEMARKING (GIVE WAY LINE)
	LOTS TO BE SUBDIVIDED UNDER SPERATE APPLICATION
	PROPOSED SEWER
	PROPOSED STORMWATER
	PROPOSED WATER
	EXISTING TRUNK WATER
	EXISTING SEWER
	EXISTING STORMWATER
	EXISTING WATER
	FUTURE KERB FACE
	FUTURE SEWER
	FUTURE STORMWATER
	FUTURE WATER
	PRELIMINARY CONTOURS
	EXISTING CONTOURS (LIDAR)
	BATTERS <1.0m
	BATTERS 1.0-2.5m
	BATTERS 2.5m <
	RETAINING WALL 2.5m
	INTERIM BATTER (4.0m NOM.)



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LOCALITY PLAN



REVISIONS

[illegible]

Associated Consultants



Client



Project



PRECINCT 1
MIBA AREA
FUNCTIONAL DRAWINGS



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Approved - RPEQ 12805

Drawing Title

VILLAGE CENTRE STAGE 3
BELL PROPERTY ROAD
FUNCTIONAL PLAN

Drawn I.O.C	Designed I.O.C	Checked GBG	Date APR 15
Scale AS SHOWN			Sheet 5 of -
A1	Drawing No 15-103-SK011		Revision B



NORTH

[illegible]

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Lend Lease

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Drawing Title

VILLAGE CENTRE STAGE 3
TYPICAL SECTIONS

Drawn EL	Designed EL	Checked GBG	Date APR 13
Scale AS SHOWN			Sheet 2 of
A1	Drawing No 15-103-SK002		Revision B



SECTION
SCALE 1:100

* DENOTES CAR PARKING NOT CONTINUOUS ALONG STREET.

NB
KERB TYPES TO BE CONFIRMED
DURING DETAILED DESIGN

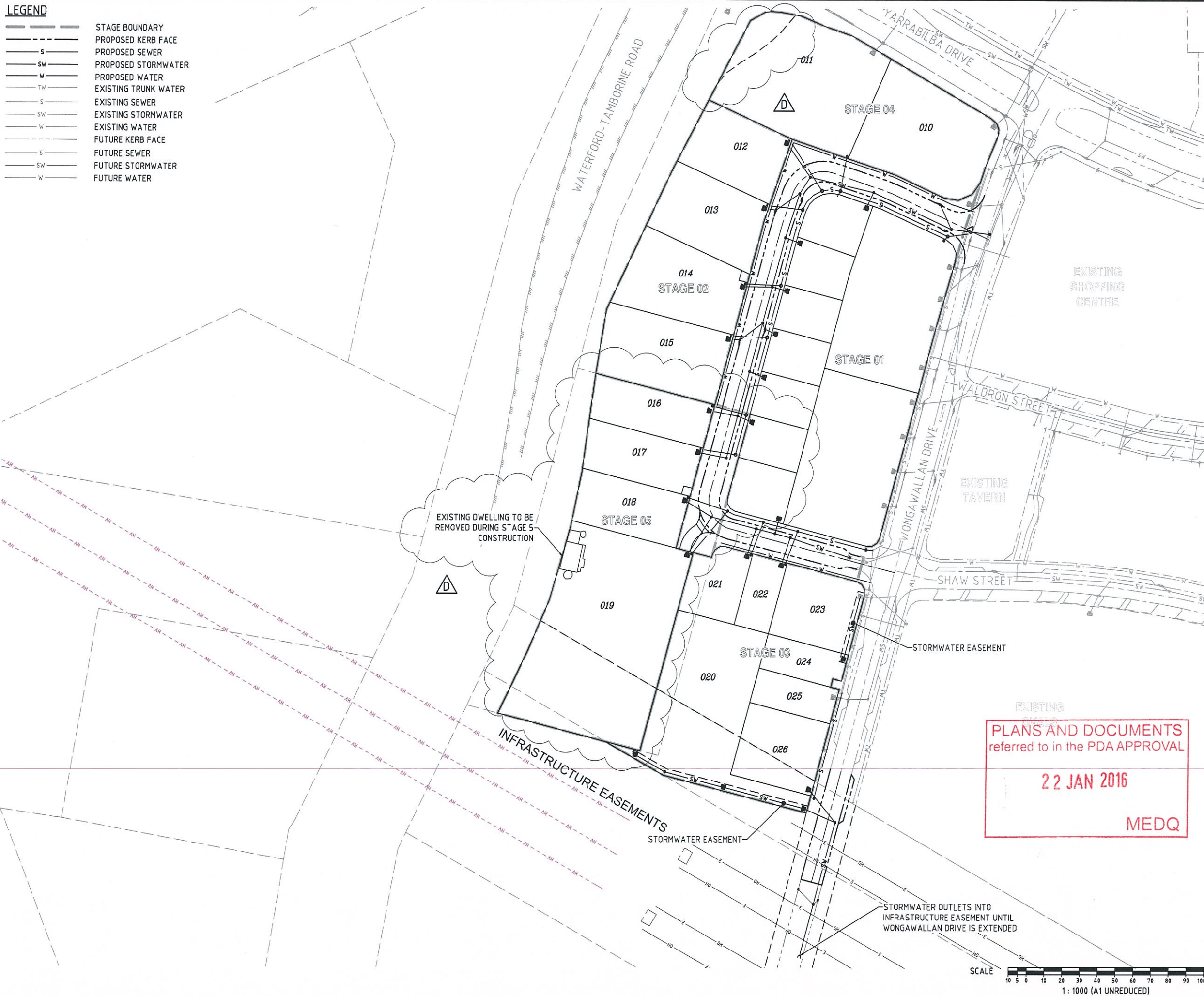
PLANS AND DOCUMENTS
referred to in the PDA APPROVAL

22 JAN 2016

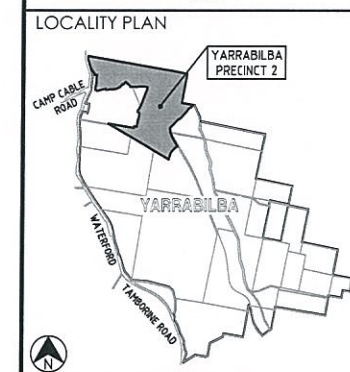
MEDQ

LEGEND

---	STAGE BOUNDARY
---	PROPOSED KERB FACE
S	PROPOSED SEWER
SW	PROPOSED STORMWATER
W	PROPOSED WATER
TW	EXISTING TRUNK WATER
S	EXISTING SEWER
SW	EXISTING STORMWATER
W	EXISTING WATER
---	FUTURE KERB FACE
S	FUTURE SEWER
SW	FUTURE STORMWATER
W	FUTURE WATER



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REVISIONS

No	Description	Date	By
A	APPROVAL	APR 15	L/C
B	GENERAL REVISIONS	28/07/2015	MDW
C	STAGE 3 LOTS AMENDED	03/11/15	EL
D	STAGE 5 ADDED AND BDY'S AMENDED	17/11/15	EL

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Approved - RPEQ 12805

Drawing Title
**VILLAGE CENTRE STAGE 3
SERVICES PLAN**

Drawn EL	Designed EL	Checked GBG	Date APR 15
Scale AS SHOWN	Drawing No 15-103-SK003	Sheet 3 of -	Revision D

PLANS AND DOCUMENTS
referred to in the PDA APPROVAL

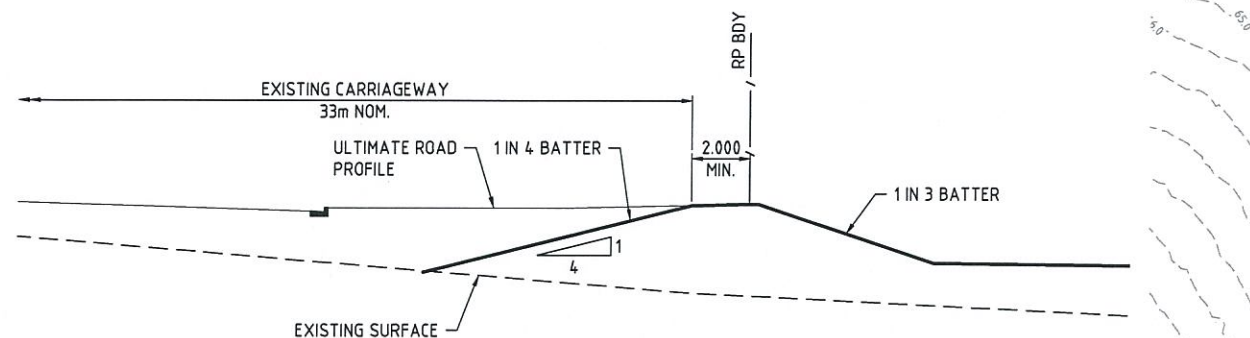
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MEDQ



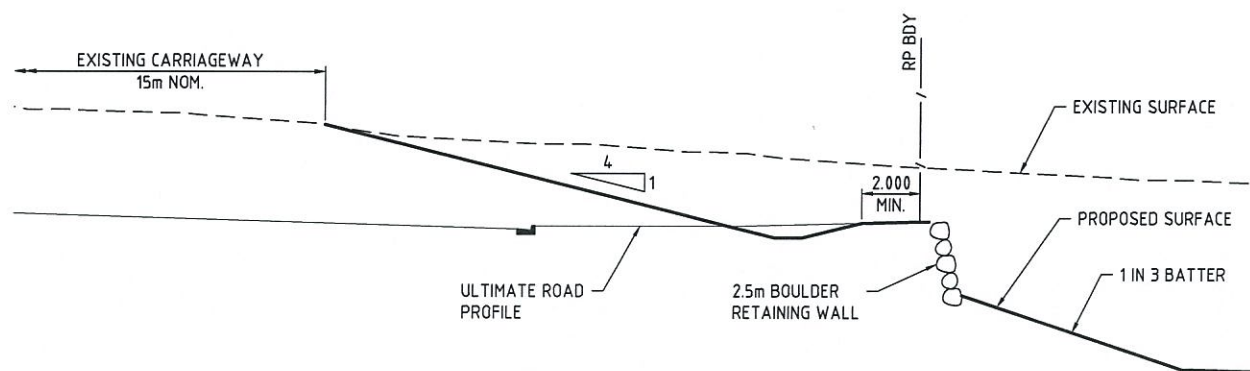
LEGEND

- STAGE BOUNDARY
- PROPOSED KERB FACE
- PRELIMINARY CONTOURS
- EXISTING CONTOURS (LIDAR)
- BATTERS - <1.0m
- BATTERS 1.0-2.5m
- BATTERS 2.5m <
- RETAINING WALL 2.5m



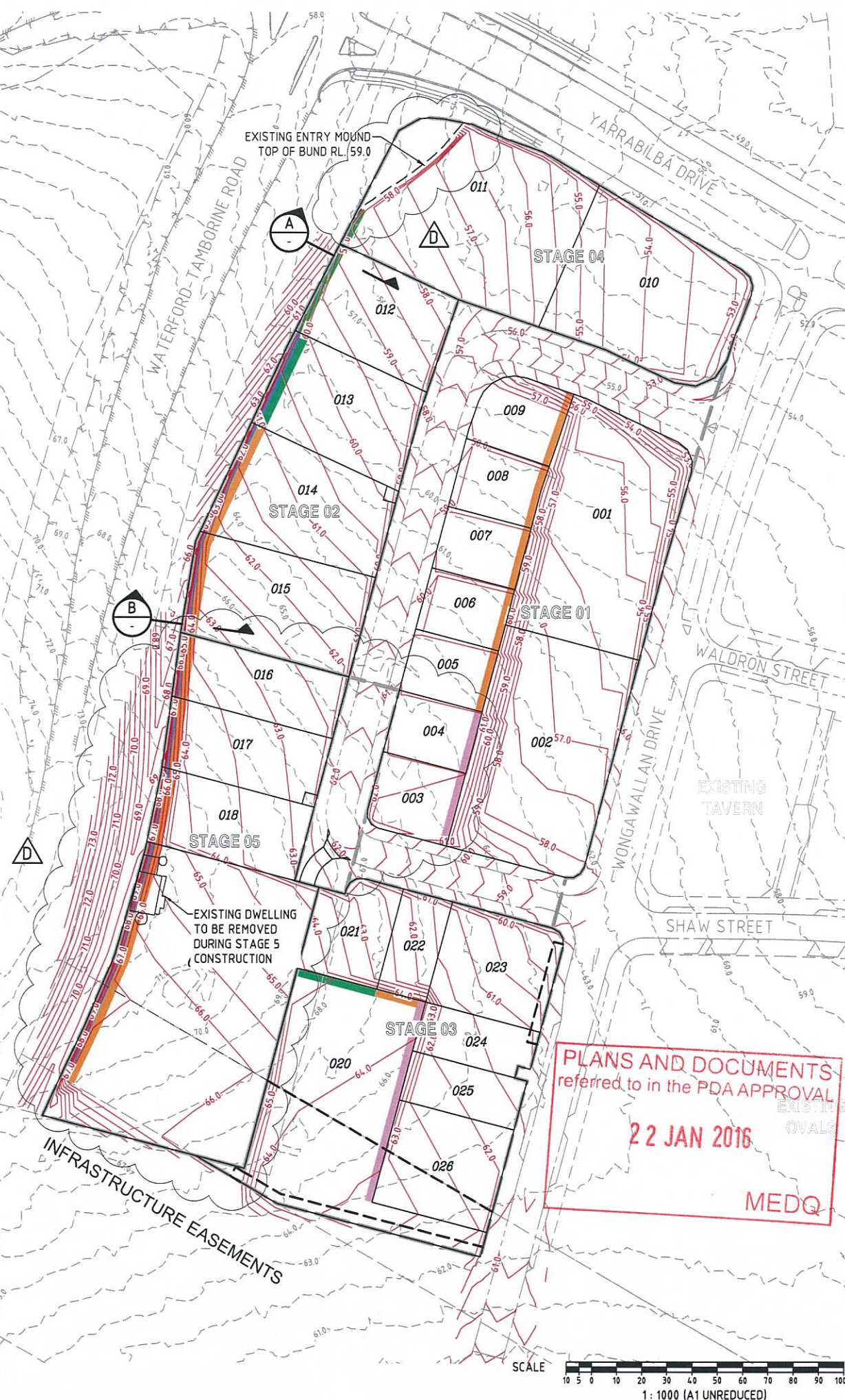
TYPICAL BATTER PROFILE

A SECTION
SCALE 1:125



TYPICAL RETAINING WALL AND BATTER PROFILE

B SECTION
SCALE 1:125

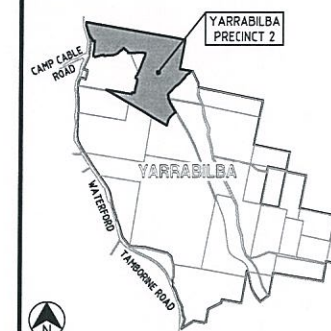


PLANS AND DOCUMENTS
referred to in the PDA APPROVAL
22 JAN 2016
MEDQ

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LOCALITY PLAN



REVISIONS

No	Description	Date	By
A	APPROVAL	APR 15	I.O.C
B	GENERAL REVISIONS	28/07/15	MDW
C	SECTION C ADDED & CONTS REVISED	04/11/15	EL
D	STAGE 5 ADDED AND BDYS AMENDED	17/11/15	EL

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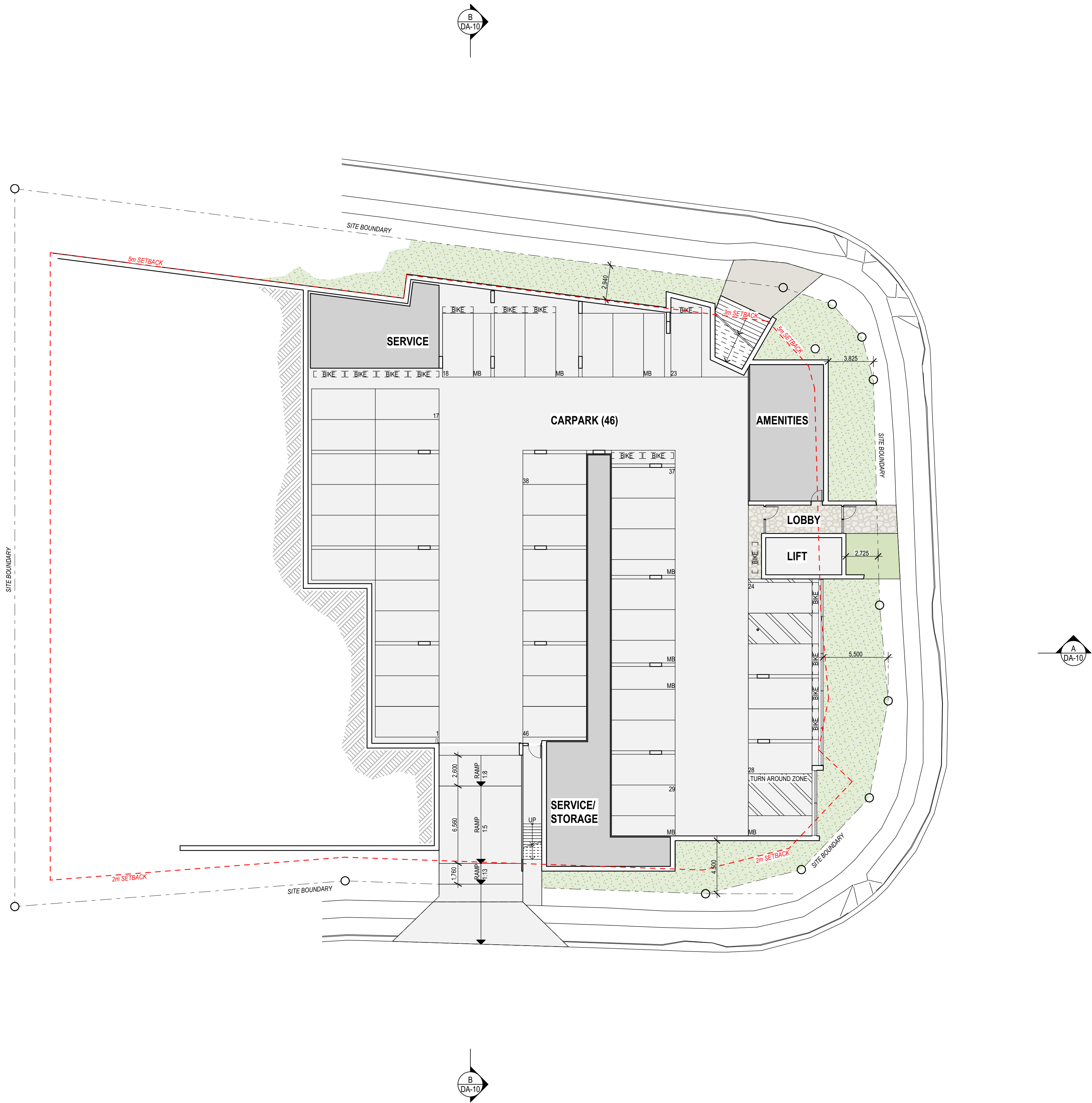
Approved - RPEQ 12805

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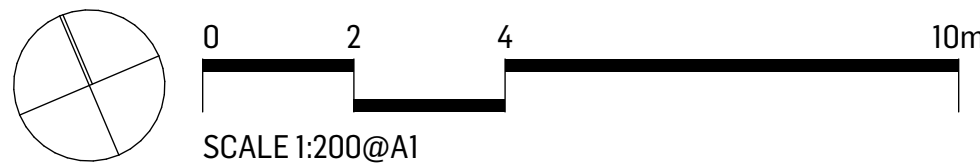
VILLAGE CENTRE STAGE 3
EARTHWORKS PLAN

Drawn	Designed	Checked	Date
EL	EL	GBG	APR 15
Scale	AS SHOWN	Sheet	4 of -
Drawing No	15-103-SK004	Revision	D

APPENDIX B – SITE LAYOUT



FLOOR PLAN - BASEMENT
SCALE 1:200



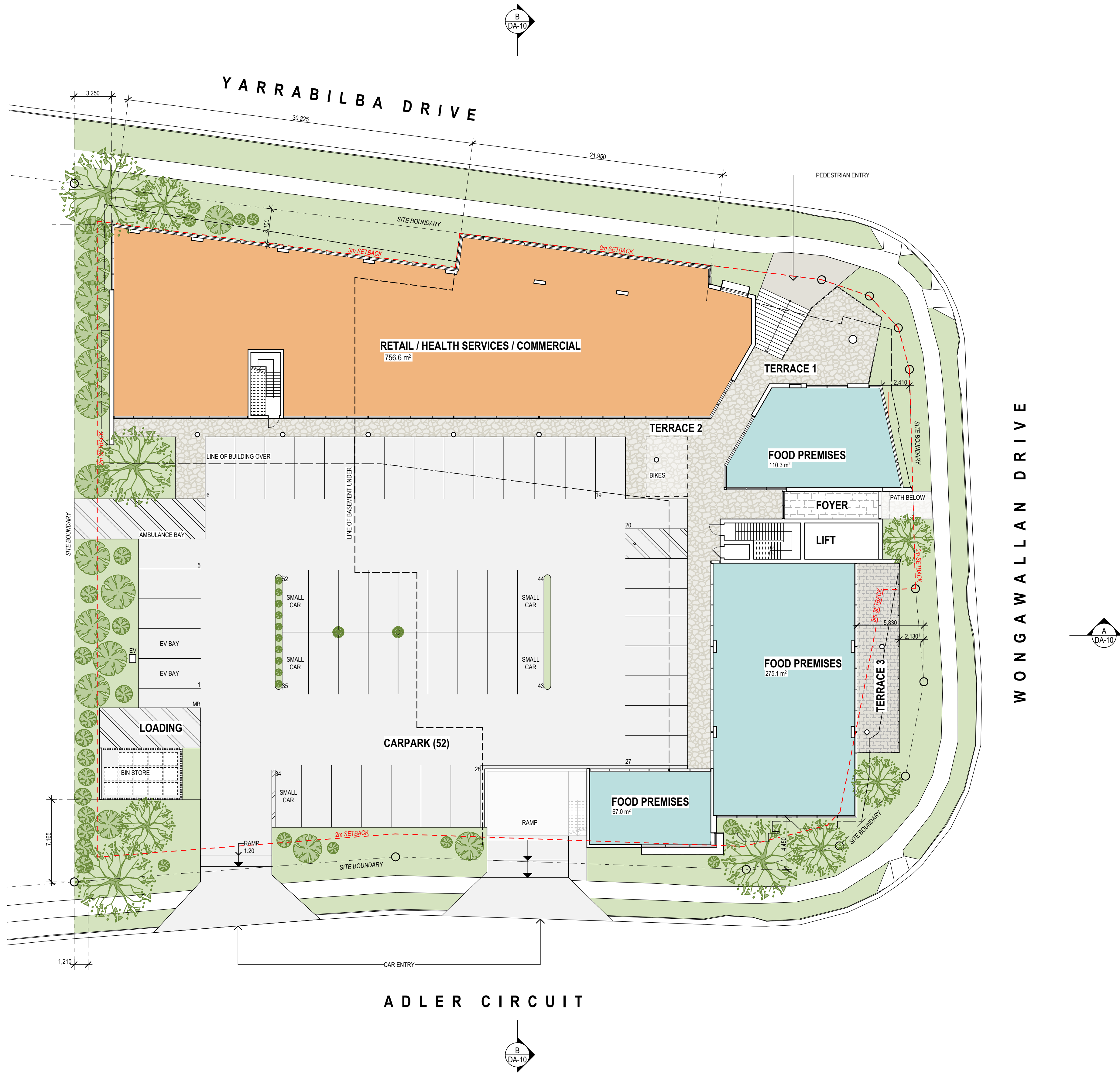
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A	28.07.2023	CL	DEVELOPMENT APPLICATION	JO
B	03.08.2023	CL	AMENDMENT	JO
C	29.02.2024	CL	AMENDMENT	JO
D	01.03.2024	SC	AMENDMENT	JO

UNCONTROLLED

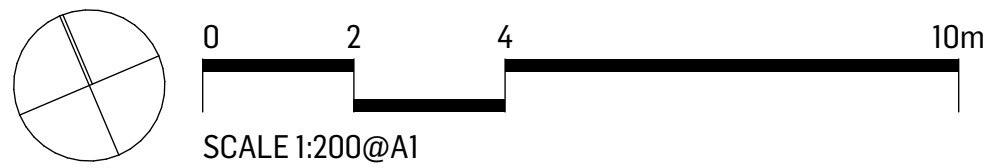
YARRABILBA MIXED USE

DRAWING
FLOOR PLAN - BASEMENT
PROJECT NO. **2789-427** DRAWING NO. **DA-02** ISSUE **D**





FLOOR PLAN - GROUND
SCALE 1:200



ISSUE	DATE	BY	DESCRIPTION	CHKD
A	28.07.2023	CL	DEVELOPMENT APPLICATION	JO
B	03.08.2023	CL		JO
C	15.08.2023		AMENDMENT	JO
D	29.08.2023	CL	AMENDMENT	JO
E	01.09.2024	SC	AMENDMENT	JO

UNCONTROLLED

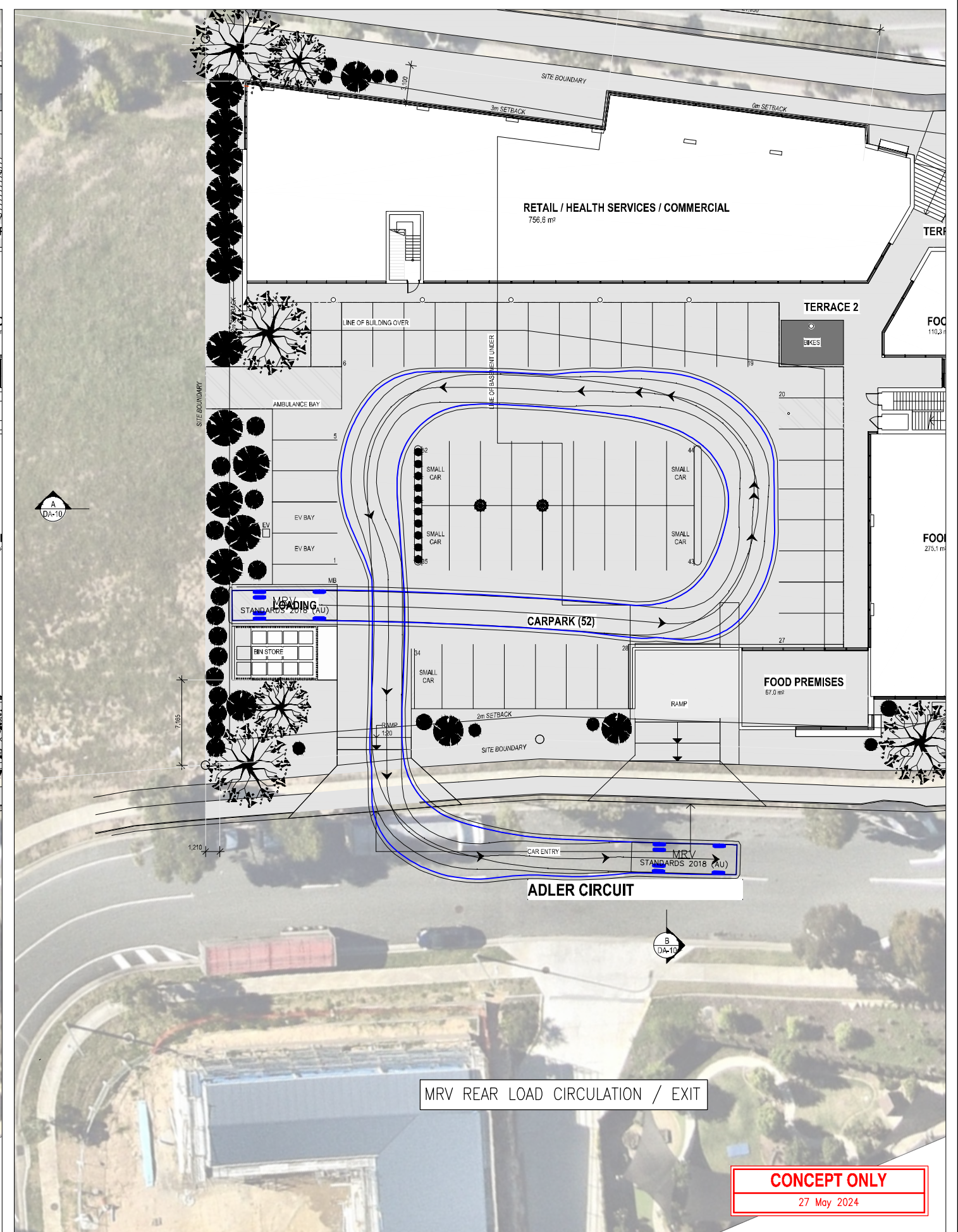
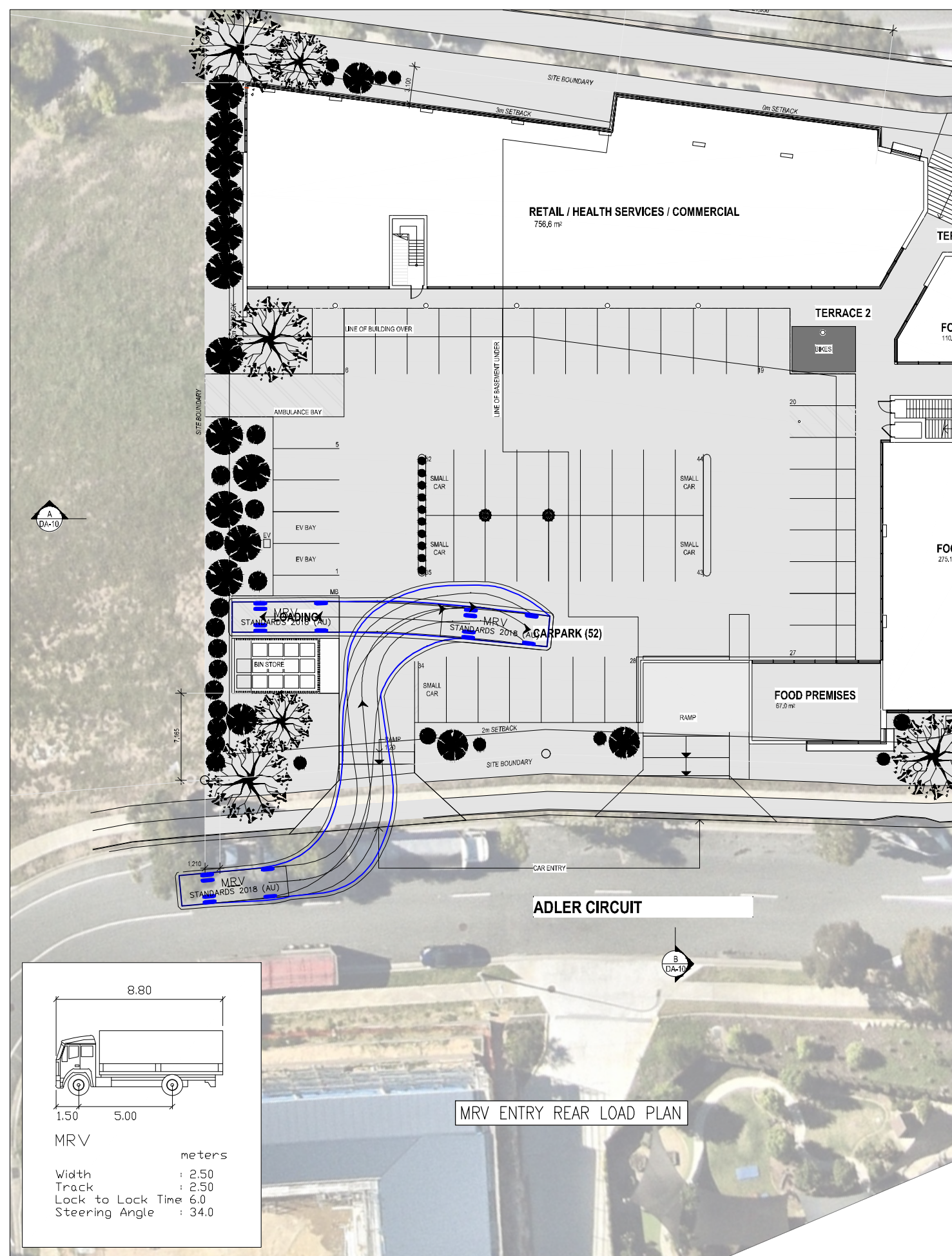
YARRABILBA MIXED USE

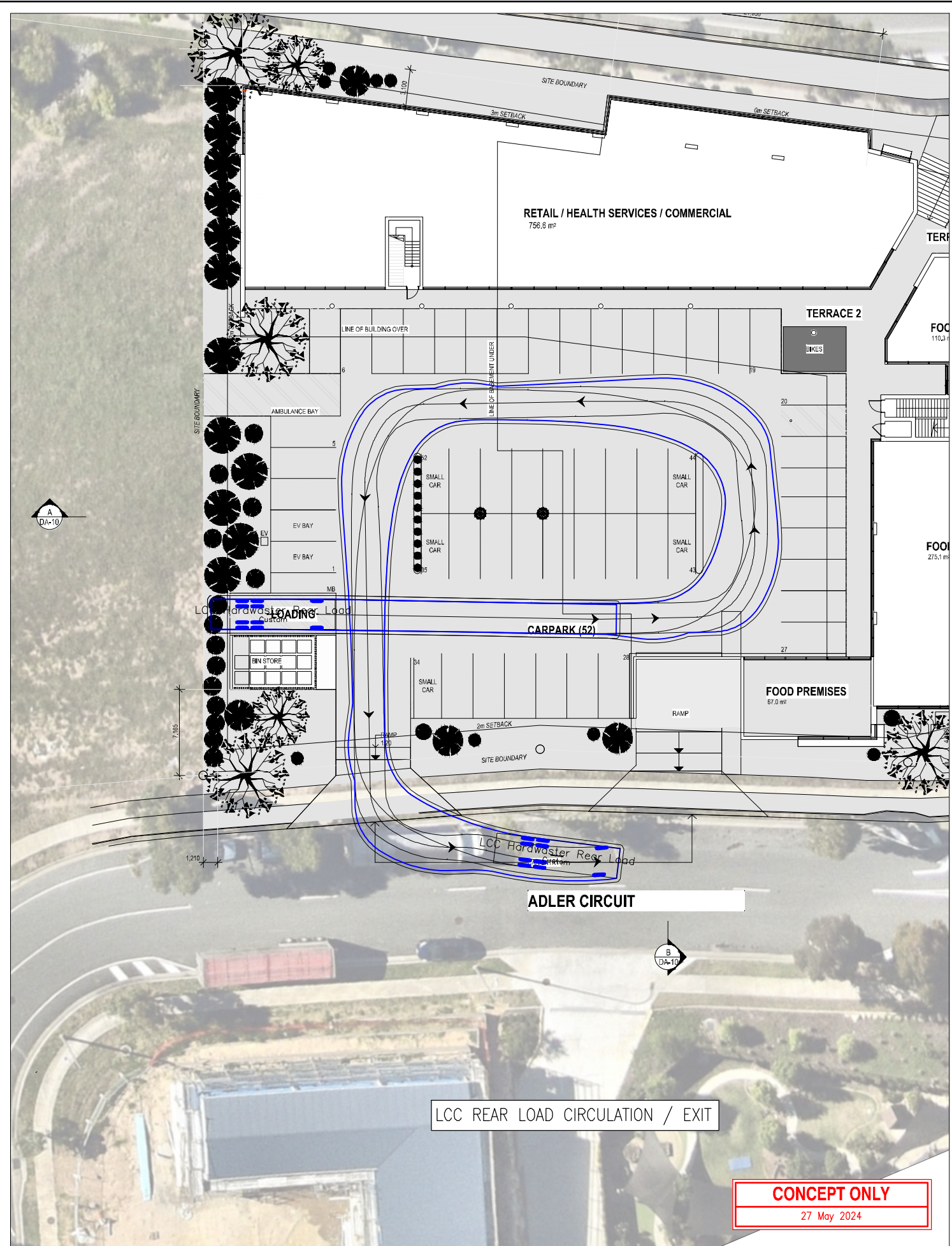
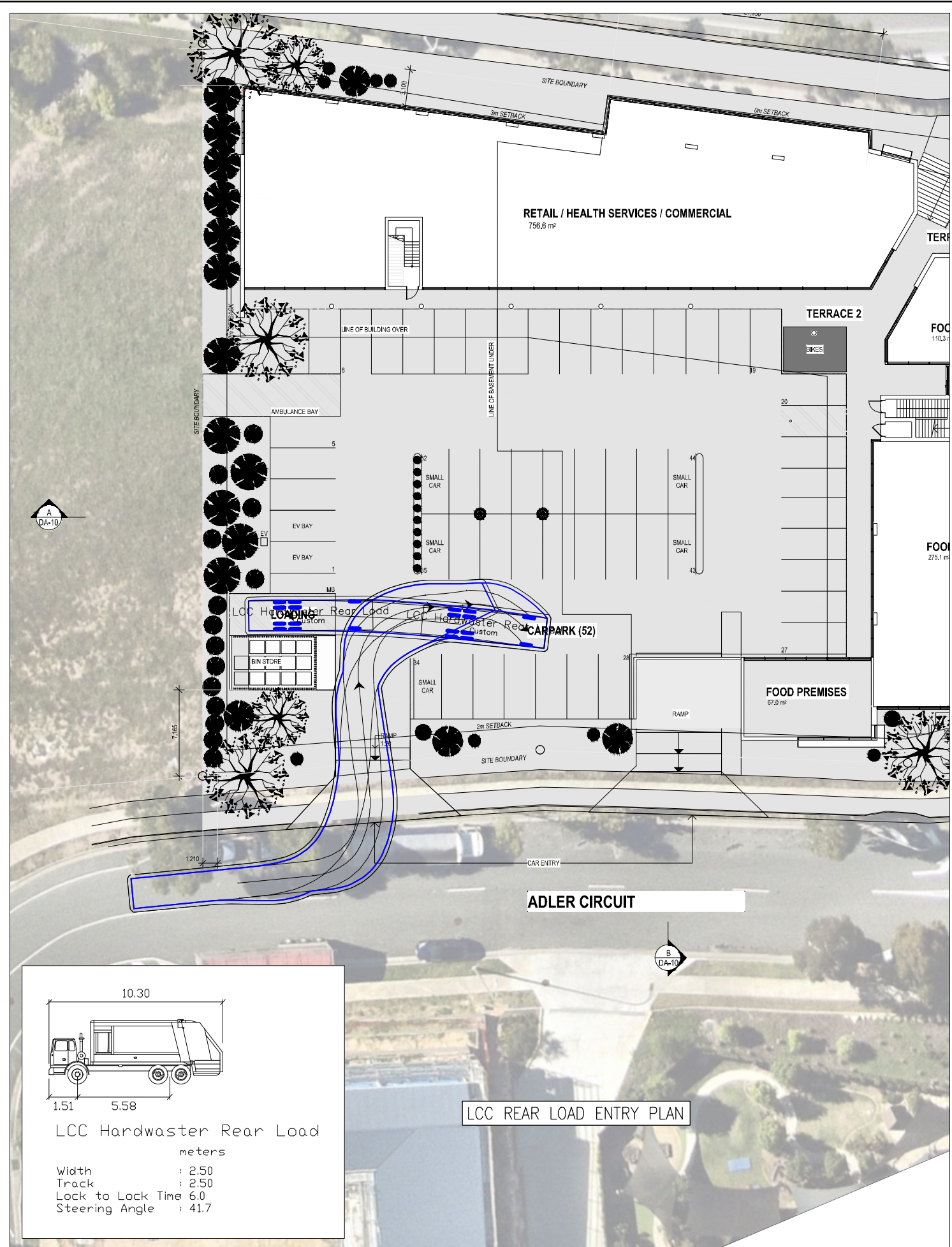
DRAWING FLOOR PLAN - GROUND

PROJECT NO. **2789-427** DRAWING NO. **DA-03** ISSUE **E**



APPENDIX C – SWEPT PATH ASSESSMENT





CONCEPT ONLY
27 May 2024

