

PLANS AND DOCUMENTS  
referred to in the PDA  
DEVELOPMENT APPROVAL

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# Traffic Engineering Report

Proposed Residential Aged Care

At Seventeen Mile Rocks Road, Oxley

on behalf of McNab



## About TTM

For 30 years, we've been at the centre of the Australian development and infrastructure industry. Our unique combination of acoustics, data, traffic and waste services is fundamental to the success of any architectural or development project.

We have over 50 staff, with an unrivalled depth of experience. Our industry knowledge, technical expertise and commercial insight allow us to deliver an exceptional and reliable service.

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## Revision Record

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# 1 Introduction

## 1.1 Background

TTM Consulting has been engaged by McNab to prepare a traffic engineering report investigating a proposed Residential Aged Care Development. It is understood that a Development Application will be lodged with Economic Development Queensland (EDQ).

The greater site is known as the Oxley Priority Development Area. A Masterplan consisting of mixed use developments (including residential dwelling lots, aged care, childcare) was approved by EDQ in December 2020 (EDQ Approval no: DEV2020/1099).

This masterplan allows for the staging and development of the Oxley Priority Development Area into three separate precincts:

- Precinct 1 – Environmental Protection
- Precinct 2 – Drainage Reserve/Public Recreation Park
- Precinct 3 – Neighbourhood/Lifestyle and Care

The above precinct is to be split into two separate greater stages, each developing separate portions of the site. The Masterplan package for the greater site has provided an indicative internal road network and staging for these precincts, a copy of this plan is included as **Appendix B**. This report relates to Stage 1C, which is the Residential Aged Care Development.

## 1.2 Scope

This report investigates the transport aspects associated with the proposed development. The scope of the transport aspects investigated includes:

- Reviewing the prevailing traffic and transport conditions surrounding the site.
- Identifying the parking supply required to cater to development demands.
- Assessing the parking layout to provide efficient and safe internal circulation and manoeuvring.
- Assessing the access configuration to provide efficient and safe manoeuvring between the site and the public road network for cars, service vehicles, cyclists and pedestrians.
- Identifying the service vehicle needs for the site.
- Assessing the internal service vehicle layouts to provide efficiency and safety for on-site service vehicle operation.
- Reviewing access to a suitable level of public and active transport provisions.

- Identification of likely traffic volumes and traffic distribution from the development.
- Identification of likely traffic impacts of development on the surrounding road network.

To assess the proposed transport arrangements, the development plans have been assessed against the following guidelines and planning documents:

- BCC's Planning Scheme 2014, specifically:
  - Transport, Access, Parking and Servicing Code 'TAPS' Code
  - Transport, Access, Parking and Servicing Planning Scheme Policy 'TAPS PSP'
  - Local Government Infrastructure Plan
- EDQ's Development Scheme for 'Oxley Priority Development Area'
- Australian Standards for Parking Facilities, specifically:
  - Part 1: Off-street car parking (AS2890.1:2004)
  - Part 2: Off-street commercial vehicle facilities (AS2890.2:2019)
  - Part 3: Bicycle parking (AS2890.3:2015)
  - Part 6: Off-street parking for people with disabilities (AS2890.6:2009)
- Austroads 'Guide to Traffic Management'.

### 1.3 Site Location

The site is located to the north of Seventeen Mile Rocks Road, as shown in Figure 1.1. The site, and its surroundings, are shown in Figure 1.1. The property is described as Lot 102 as part of the Masterplan. The site will have road frontage to a new 16.0m wide road along the eastern boundary.

The wider site is currently occupied by C & K Yuingi Community Childcare Centre, which is located on Lot 501 in the north-eastern portion of the site. The remainder of the site contains the former secondary college that ceased operating in 2000 and has since been temporarily used as government offices which have also ceased to operate on the site.

Two vehicular accesses exist for the wider site, including:

- Primary access located at the eastern end of the Seventeen Mile Rocks Road service road. This access is effectively unused at present as it provides access to on-site car parking areas associated with the former secondary college; and
- Secondary access located on Cliveden Avenue. This access is used by staff and visitors associated with the existing childcare centre.

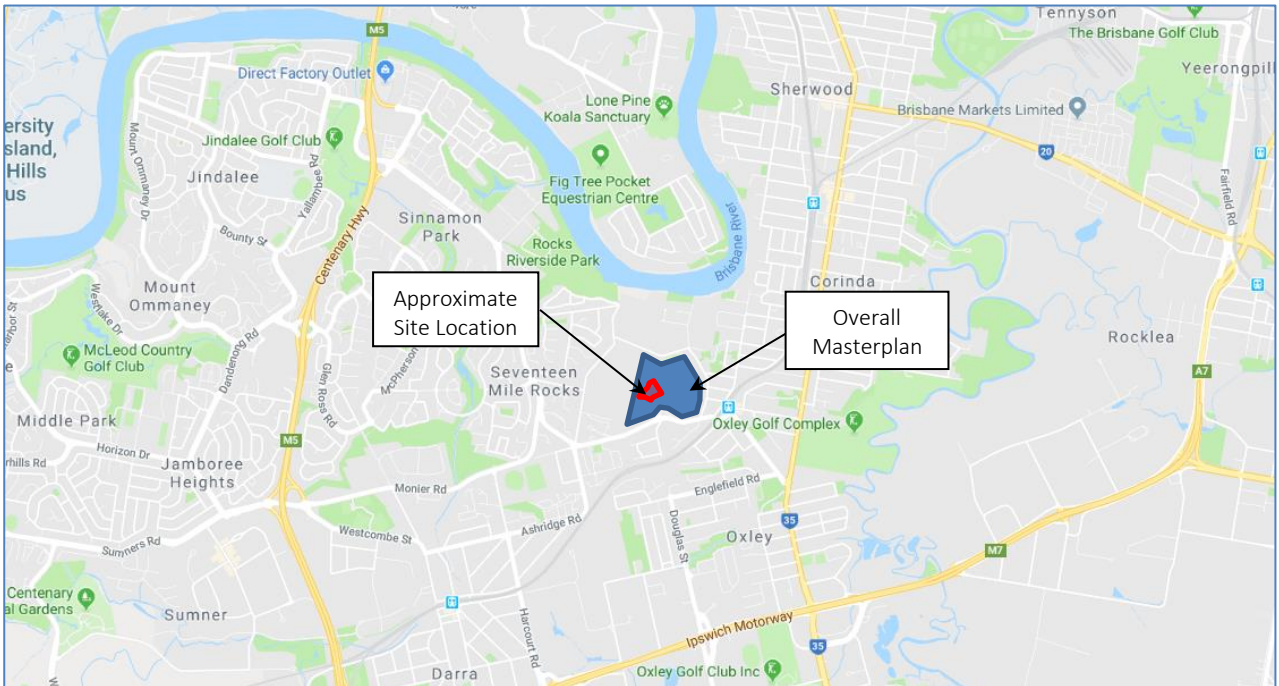


Figure 1.1: Site location (Source: Google Maps)



Figure 1.2: Site Area (Source: Queensland Globe)

## 1.4 Development Profile

This application relates to Stage 1C of the Masterplan site, which has been approved as a ‘future retirement living precinct’ as part of the Masterplan.

The development scheme proposes to construct a 6-storey residential aged care facility with a total capacity of 150 beds. The proposed development are summarised in Table 1.1.

Table 1.1: Proposed Development

Proposed Development	GFA/Qty
<b>Residential Aged Care Facility:</b>	
– Total bed capacity	150 beds
– Total GFA	8,270m <sup>2</sup>
– Total car parks	53 spaces

The proposed development scheme is consistent with the original Masterplan approval for stage 1C. Also, the total number of proposed beds (which is 150 beds) is consistent with the original approval for stage 1C.

## 1.5 Access

The proposed development allows the facility to be accessed via a connection to the proposed new road at the southeast of the site. The new road along the site frontage is to be constructed as part of the Stage 1 development. Access to the site will be provided via a 6.6m wide priority controlled crossover (modified Type B2), allowing all movements onto the new road.

Further details regarding the access arrangement are provided in Section 4.

Pedestrian access to the site will be provided via a pedestrian footpath which is provided adjacent to the driveway. The development provides a dedicated pedestrian footpath connecting the building main entrance with the new road. The internal footpath will be connected with the planned external footpath network.

Further details in relation to the proposed vehicular and pedestrian/cyclist access provisions are included in sections 5 and 7 respectively.

## 1.6 Parking

The development proposal includes 53 parking spaces inclusive of 2 spaces designated for persons with a disability, which are located on the ground floor.

Further details on the parking arrangements can be found in Section 3.

## 2 Existing Transport Infrastructure

### 2.1 The Road Network

All existing roads in the immediate vicinity of the site are administered by BCC. The hierarchy and characteristics of higher order roads in the immediate vicinity of the site are shown below in Table 2.1. All other roads in the local area are classified as ‘Neighbourhood Roads’.

Table 2.1: Local Road Hierarchy

Road	Speed Limit	Lanes	Classification
Seventeen Mile Rocks Road	60kph	2 (undivided, plus parking)	Suburban Road
Oxley Station Road	60kph	2 (undivided, plus parking)	District Road
Cook Street	60kph	2 (undivided, plus parking)	District Road

All road intersections in the local area are priority-controlled (either roundabout or T-junction) except for the intersection of Seventeen Mile Rocks Road / Duporth Road / Ormond Road which is signal-controlled. All intersections typically have no restrictions to turn movements except for the Seventeen Mile Rocks Road / Ardoyne Road intersection where right turns out of Ardoyne Road are prohibited from 7-9 am and 4-7 pm Monday to Friday.

### 2.2 Road Planning and Staging

Within the Masterplan approval, an internal road layout has been provided in order to shape the connections for the site onto the existing network. Access to the Stage 1C development is dependent on the construction of these new roads, given its location towards the centre of the priority development area.

Given the nature of the development, primary access to the site is achieved via an extension of the existing service road currently leading to Seventeen Mile Rocks Road. The extension will be classed as a new public Neighbourhood Road and has subsequently been provided as 16m width with a 7.5m carriageway and 4.25m wide verges in accordance with BCC Drawing BSD-1021. Additionally, a new east/west road internal to the site will form a T-intersection with this extension and will provide a further connection to the internal development stages.

Stage 1A has been designed to provide the primary internal road connections for the site, with the construction of the two roads which provide access to the Stage 1C development. An excerpt of the internal road layout and Stage 1 plan has been provided in Figure 2.1.

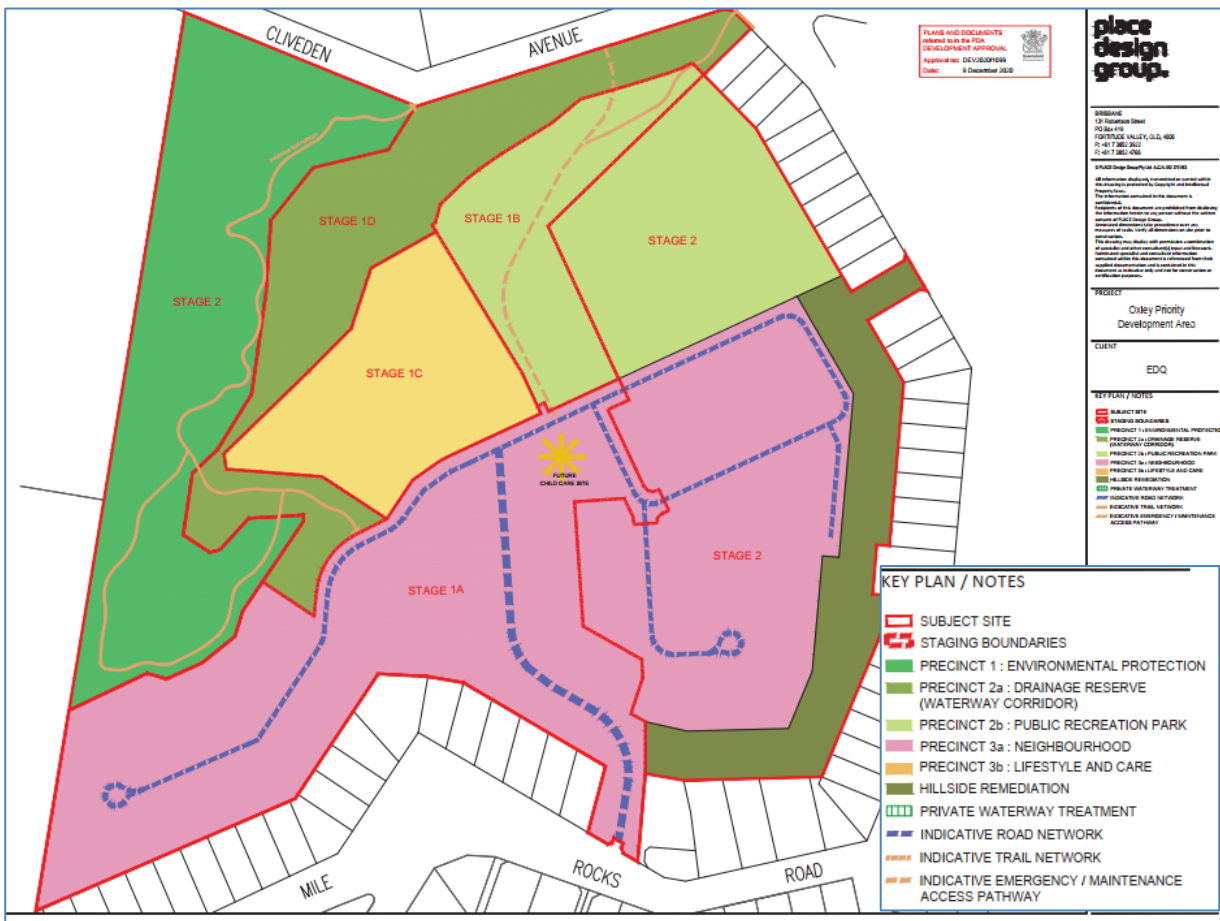


Figure 2.1: Proposed Road Layout

The proposed configuration of an upgrade to the roundabout intersection at Seventeen Mile Rocks Road / Kingsgate Street has been prepared by TTM as part of the Masterplan package as warranted within further stages of the development. These drawings have been attached as **Appendix D**. Further discussion on this and its warrant as a result of traffic impacts from the proposed Stage 1C development can be found in Section 7.

## 2.3 Public Transport and Pedestrian Facilities

### Train

Oxley train station, on the Ipswich line, is located approximately 250m east of the site. Services typically operate every 12 to 15 minutes between 5 am and 12:30 am (approx.).

### Buses

The nearest on-street bus stop to the site is located on Seventeen Mile Rocks Road, approximately 80m east of the Service Road / Kingsgate Street roundabout intersection. It services bus routes 106, 467 and 468 which provide a connection to Oxley train station, Indooroopilly Interchange and Brisbane City with services typically operating every 30 minutes, and 15 minutes during peak times.

### Cyclists

Dedicated on-road cycle lanes are located on Seventeen Mile Rocks Road on approach to, and west of, the roundabout intersection with the Service Road / Kingsgate Street. The stage 1C connection to this cycle network will be formed via the connection of the new internal roads to the site.



Figure 2.2: Cycle facilities

### Pedestrians

Formal pedestrian footpaths are located on both sides of Seventeen Mile Rocks Road and the western side of Blackheath Street. The nearest formal pedestrian crossing of Seventeen Mile Rocks Road is located at the roundabout intersection with Service Road / Kingsgate Street.

Pedestrian connection in the interim to Stage 1C will be formed again by the internal road network during Stage 1. Further crossblock connection to the north will be provided via walking routes through the future Stage 2 projects as part of the Masterplan.

## 3 Car Parking Arrangements

### 3.1 Council Parking Supply Requirement

EDQ's Development Scheme for 'Oxley Priority Development Area' refers to BCC's 'TAPS PSP' for parking requirements. BCC's 'TAPS PSP' parking supply requirement for this type of development are identified in Table 3.1.

Table 3.1: Parking Supply Requirement

Land Use	Council Requirement	Extent	Requirement (min)	Provision
Residential Care Facility	1 space per 6 beds	150 beds	25 spaces	53 spaces

The proposed parking supply is in excess of the minimum requirements of the TAPS PSP, therefore, the parking supply is deemed compliant. The development parking supply also includes 2 PWD parking spaces within the car parking areas which are consistent with the BCC's requirement of 1 space per 50 car parking spaces.

### 3.2 Car Park Layout

EDQ's Development Scheme for 'Oxley Priority Development Area' refers to BCC's 'TAPS PSP' for the car parking design requirements.

Table 3.2 identifies the characteristics of the proposed parking area with respect to the BCC's 'TAPS PSP' requirements. The last column identifies the compliance of each design aspect. Where compliance with the Council is not achieved, further information is provided below.

Table 3.2: Parking Design Requirements

Design Aspect	Minimum Council Standard	Proposed Provision	Compliance
Parking space length: – Standard bay	5.4m	5.4m	Compliant
Parking space width: – Staff – Visitor	2.4m 2.6m	2.5m 2.6-2.7m	Compliant Compliant
Aisle Width: – Parking aisle – Circulation aisle	6.2m 6.5m	6.6m (min) 6.5m	Compliant Compliant
Parking envelope clearance – space adjacent to wall	Space 0.3m clear of wall	Space 0.3m clear of wall	Compliant
Maximum Gradient: – PWD parking – Parking bay – Parking aisle	1:40 (2.5%) 1:15 (6.7%) 1:20 (5.0%)	Flat Flat Flat	Compliant Compliant Compliant

Design Aspect	Minimum Council Standard	Proposed Provision	Compliance
Height Clearance <ul style="list-style-type: none"> <li>– General Min.</li> <li>– Over PWD bay</li> <li>– Absolute Min.</li> </ul>	2.3m 2.5m 2.1m	Clear overhead Clear overhead Clear overhead	Compliant Compliant Compliant
Parking Aisle Extension	2m beyond last bay or 8.0m aisle width	8.0m aisle width	Compliant

The parking area is compliant with the requirements of the TAPS PSP, therefore, the car parking area is deemed compliant.

## 4 Site Access Arrangements

Stage 1C development approval allows for one entry/exit facility as a driveway crossover, accessed via the new 6.6m driveway crossover. This primary crossover will facilitate access to both the 53 parking spaces and internal servicing provisions for the proposed development.

The overall development site is currently vacant. Therefore, the proposed location of the driveway has been assessed based on the approved master plan i.e. the driveway has been assessed based on approved road intersection, location of the driveway for adjoining lots etc. as per the masterplan.

The proposed access driveway requirements are specified in Table 4.1.

Table 4.1: Typical Driveway Requirements

Design Aspect	Council Requirement	Proposed Provision	Compliance
Distance from a minor intersection	10m (min)	More than 10m	Compliant
Distance from another driveway	3m (min)	More than 3m	Compliant
Sight Distance - 50kph	Desirable – 90m Minimum - 70m	88m	Compliant
Design Type	Modified B2	Modified B2	Performance Solution
Width/ Entry and Exit Widths	7m (based on LRV design vehicle)	6.6m	Performance Solution
Minimum Queuing Provisions	3 vehicles	6 vehicles (38m)	Compliant

The proposed access arrangements generally comply with BCC requirements, however, the following issues are resolved with alternative solutions or further information.

### Design Type

In order to ensure that the driveway splay does not protrude beyond the property boundary, a modified splay is provided on the exit side of the crossover. This arrangement is considered acceptable in this instance given the form of the adjacent road network. TTM drawing 21BRT0016-01 included in Appendix C confirms the layout of the driveway is adequate to accommodate the swept paths requirements of the largest design vehicle (LRV) stipulated by BCC.

### Driveway Width

The TAPS PSP driveway requirements (7.0m Type B2) is dictated by the provisions for service vehicle access. It is recognised, however, that car park traffic will generate the dominant traffic movement at the driveway. The proposed plans show a 6.6m driveway, which is consistent with the TAPS PSP requirements for car park traffic movements (minimum 6.0m required). Regarding access for service vehicles, swept path analysis has been conducted to show that this slightly reduced width will still allow appropriate access for the necessary design service vehicles.

As detailed in TTM Drawing 21BRT0016-01 included in **Appendix C**, the proposed 6.6m driveway is sufficient to accommodate service vehicle demands including:

- Occasional access (forward-in/forward-out) movements for an LRV
- Regular access (forward in/forward-out) movements for vehicles up to the size of a LRV

**Sight Distance:**

Given the nature of the site and the layout of the internal road, the sight distance available to the crossover is an important element in the design. Using the existing masterplan design of the internal road network and the design speeds, TTM has made an estimate on the available sight distance for a vehicle exiting the site in terms of seeing southbound along the new internal road. Also, based on the proposed plans the sight distance towards the north is expected to be more than 70m.

An image of this is depicted in Figure 4.1.



Figure 4.1: Sight Lines

EDQ’s Development Scheme for ‘Oxley Priority Development Area’ refers to BCC’s ‘TAPS PSP’ for the access design requirements. Given the design speed for the road is to be posted as 40km/hr, the speed environment itself would be allocated as 50kph as per the TAPS PSP. Given the traffic generation of the site, the absolute minimum sight distance requirements would be 70m for ‘distance for driveways with design

two-way peak traffic generations less than 100 per hour, measured from a point 5m out from the through carriageway’.

Based on the proposed layout and horizontal & vertical alignment of the road, it is considered that the location of the driveway will meet the minimum sight distance requirement which is 70m.

#### 4.1 Porte-cochere Access

A porte-cochere is proposed at the main pedestrian entry to the building. Vehicles will access the porte-cochere in a one-way manner (west to east) through the proposed separate ingress and egress driveways to the internal circulation road. Swept path analysis as shown in TTM Drawing 21BRT0016\_02A included in **Appendix C** confirms that the width of the Porte-cochere is adequate to accommodate the swept requirements of a B99 passing a standing B99 and a non-standard vehicle.

As shown in Figure 4.2, Queensland Ambulance Service (QAS) drawing number STD-V-01 confirms that a maximum height clearance of 3.5m is required over the ambulance bay and the maximum ambulance height is 2.83m. Additionally, the Queensland Ambulance Service fleet operates with various vehicles sizes (both height and length).

It is understood that a maximum height clearance of 3.6m will be provided over the porte-cochere (measured from the floor to the lowest appurtenance on the ceiling such as fire sprinklers, services, lighting fixtures or signs).

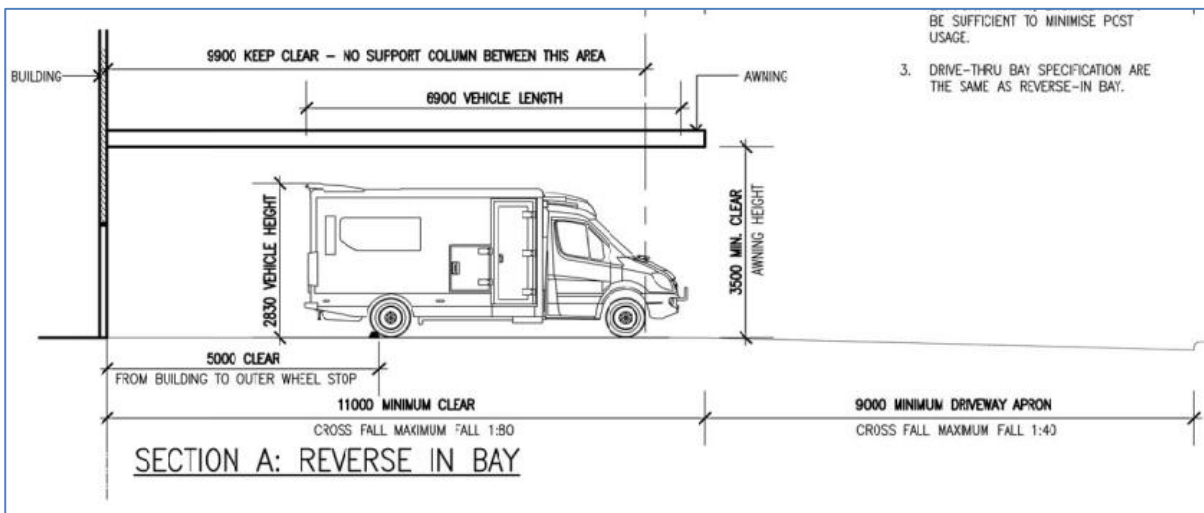


Figure 4.2: QAS ambulance loading bay requirement (Source: Excerpt of QAS standard drawing STD-V01)

On this basis, the design of the porte-cochere is limited to ambulances requiring an overall height clearance of 3.3m or less. Also, the width of the porte-cochere can only accommodate ambulances up to 6.3m in length. Larger ambulances can utilise the car parking area located at the rear of the site if required.

TTM considers the design of the porte-cochere ‘fit for purpose’.

## 5 Service Vehicle Arrangements

EDQ's Development Scheme for 'Oxley Priority Development Area' refers to BCC's 'TAPS PSP' for the servicing area requirements.

To assess the required number of service bays for the development, TTM has referred to the BCC requirements for service vehicles. Other service vehicle provisions are generally in accordance with AS2890.2.

### 5.1 Council Requirements

For the residential aged care facility, BCC requires the following:

- Regular access from a minor/major road for a LRV
- Occasional access from a minor road/major for a LRV

BCC's 'TAPS PSP' stipulates the provision of one LRV loading bay for a residential aged care facility.

### 5.2 Proposed Service Vehicle Arrangements and Their Adequacy

The development proposal includes a designated loading area to the rear of the facility, suitable to cater for vehicles up to the size of an LRV.

All internal onsite design complies with 2890.2-2002 Parking Facilities Part 2 Off-street commercial design and TAPS PSP.

#### 5.2.1 Design of Service Vehicle Area

The dimensions of the dedicated service vehicle area at ground level satisfy the requirements set out in AS2890.2 and TAPS PSP to facilitate on-site loading/unloading by vehicles up to the size of an LRV.

The development provides loading bays outside of the building envelope. Therefore, the TAPS PSP height clearance requirements over the servicing aisle (and the associated manoeuvring areas) is compliant.

Overall, the design of the dedicated service vehicle area (and any associated manoeuvring areas) at ground level is considered acceptable.

#### 5.2.2 Vehicle Manoeuvrability

Detailed swept path analysis (using Vehicle Tracking software), which demonstrates on-site manoeuvring for LRVs, RCVs, and vans is shown on Drawing No.'s 21BRT0016-01,02 & 03 included as **Appendix C**. It is noted that due to the alignment of the driveway, larger service vehicles (including LRV and RCV) will utilise the entire width of the driveway whilst circulating the site. Consequently, the driveway will be limited to one-way (inbound or outbound) whilst a larger service vehicle is circulating the driveway. Given the frequency of the larger service vehicles and on-site servicing occurring generally outside of the site peak hour, this

arrangement is considered acceptable. Furthermore, the peak traffic generation of the development site is anticipated to be 15vph (which is 1 vehicle every 4 minutes). Due to the anticipated low traffic movement, the driveway limited to a one-way movement for a short period of time will not significantly impact the car park circulation.

### 5.2.3 Refuse Collection

It is envisaged that the proposed development will employ bulk 1100L bins located within the designated refuse area on the Ground Floor. These bins would be wheeled out to the adjacent loading bay for collection, which will allow for a rear-loading RCV to park and easily load to the rear of the refuse area. This RCV would then be able to manoeuvre out in a forward manner, designated for service vehicle movements. It is further understood that the refuse collection will be undertaken via an 8.8m MRV or 10.3m sized refuse collection vehicle via a private contractor.

## 6 Active Transport

### 6.1 Public Transport

Public transport provisions within the vicinity are deemed to be at an acceptable level for the development. This includes the following provisions:

- Less than 1km walking distance to numerous local bus stops servicing bus routes around the Oxley area.
- Approximately 500m walking distance from the Oxley Train Station, servicing trains on the Ipswich and Caboolture lines and providing a connection to the Brisbane CBD.

TTM consider the high availability of public transportation provisions in the vicinity of the site will satisfy the site's requirements for such facilities.

### 6.2 Pedestrian and Cyclist Facility

Pedestrian access will be facilitated via the pedestrian footpath on the development site, which will provide a connection to the proposed external pedestrian network. A review of the approved masterplan drawings shows pedestrian footpaths will be provided along one side of the local road and both sides of the neighbourhood road connecting Cliveden Avenue on North and Seventeen Mile Rocks Road to the south.

TAPS PSP does not stipulate any bicycle parking requirements for the proposed development site. Therefore, the development site does not provide any on-site bicycle parking facilities.

## 7 Traffic Impact Assessment

### 7.1 Estimated Development Traffic Generation

To assess the impact of the proposed development on the adjacent road network, it is necessary to predict the likely volume of vehicles that will be generated by the proposal.

#### 7.1.1 Weekday AM & PM Peak-Hour Periods

RTA's Guide to Traffic Generating Developments recommends, for planning purposes, adopting a peak-hour traffic generation rate of 0.1vph/unit for aged care developments in both the weekday AM and PM peak-hour periods.

A summary of the expected net change in traffic generation by the site is provided in Table 7.1.

Table 7.1: Development Traffic Generation (Net Change)

Land-Use	Size / No.	Traffic Generation Rate	AM Peak-Hour Traffic Generation (vph)	PM Peak-Hour Traffic Generation (vph)
Aged Care Facility	150 units	0.1vph/unit	15	15
<b>Total (Net Trip Generation)</b>			<b>15 (11in + 4out)</b>	<b>15 (4in + 11out)</b>

As can be seen in Table 7.1, the net increase in traffic as a result of the redevelopment of the subject site is expected to be in the order of 15vph in the weekday AM and PM peak-hour periods.

### 7.2 Warrant for Detailed Traffic Impact Assessment

Acceptable Solution A02 of the BCC's Road Hierarchy Overlay Code details that the development traffic impacts be quantified and mitigated for an 'assessable development for a material change of use' which meets any of the following triggers:

- is classified as a major development; or
- involves an access driveway to a major road; or
- involves an access driveway within 100m of a signalised intersection.

*Note: The TAPS PSP defines a 'major development' as one with a total peak hour vehicle generation rate greater than 25vph.*

The increase in traffic generation as a result of the redevelopment of the subject site is anticipated to be in the order of 15vph in the AM and PM peak hour periods. Once this net increase is distributed (both in terms of arrivals/departures and route assignment) the increases in turning movements at Seventeen Mile Rocks Rd / Kingsgate St / Service Road roundabout intersection and any subsequent impact on intersection performance should be negligible.

A maximum of 1 additional vehicle will be added to the intersection every 4 minutes from the development overall in the morning and evening peak hour.

Considering the low addition of traffic from the development at Seventeen Mile Rocks Rd / Kingsgate St / Service Road intersection, the development will not have an adverse impact on the operation of the intersection.

### 7.3 Traffic Impact

As part of the approved masterplan application, TTM completed a full traffic assessment of the Oxley Priority Development Area inclusive of all stages and projected development. This included a traffic impact assessment of the key intersections impacted by the site which were as follows:

- Seventeen Mile Rocks Road / Fort Road / Pannard Street / Monier Road roundabout
- Seventeen Mile Rocks Road / Kingsgate Street roundabout
- Seventeen Mile Rocks Road / Oxley Station Road / Cook Street roundabout
- Ardoyne Road / Howard Street 'T' junction

This traffic impact assessment allowed for 150 dwellings within the residential aged care, which is in accordance with the proposed scheme with this development application. As such, the assessment findings can be deemed appropriate for Stage 1C.

It is noted that within this masterplan assessment, the Seventeen Mile Rocks Rd / Kingsgate St / Service Road intersection has been identified to require an upgrade in order to operate at an appropriate level in the future design horizons. An excerpt from this report is as follows:

*“As such, the identified upgrade should be undertaken prior to any additional development beyond the 39 residential allotments within Stage 1A”*

Given that the Stage 1C development would be in addition to the 39 residential allotments, this would warrant the upgrade to the intersection. TTM has previously prepared a preliminary concept of the required intersection upgrade, as shown in TTM drawing number 18BRT0087-01A. This included the provision of two eastbound lanes on Seventeen Mile Rocks Road on approach and departure to the intersection, which significantly increased the performance.

## 8 Summary and Conclusions

### 8.1 Development Summary

This development application relates to Stage 1C of the Masterplan site, being that of the 'future retirement living precinct'. The development scheme proposes to construct a 6-storey residential aged care facility with a total capacity of 150 beds.

The proposed development scheme is consistent with the preliminary approval as part of the Masterplan.

### 8.2 Car Parking Arrangements

The development proposal includes 53 parking spaces. The proposed Residential Care Facility is in excess of the minimum requirements of the TAPS PSP. The development parking supply also includes 2 PWD parking spaces within the car parking areas which are consistent with the BCC's requirement of 1 space per 50 car parking spaces. The car parking area is provided on the ground floor.

The design of the car parking area and supply is consistent with the requirements of the TAPS PSP.

### 8.3 Porte- Cochere Access

The design of the porte-cochere is limited to ambulances requiring an overall height clearance of 3.3m or less. The layout of the porte-cochere can only accommodate ambulances up to 6.3m in length.

Larger ambulances can utilise the car parking area located at the rear of the site if required.

### 8.4 Service Vehicle Arrangements

The development proposal includes a designated loading area to the rear of the facility, suitable to cater for vehicles up to the size of an LRV.

All internal onsite design complies with 2890.2-2002 Parking Facilities Part 2 Off-street commercial design and TAPS PSP.

The design of the servicing area and supply of the loading bay is consistent with the requirements of the TAPS PSP and AS2890.1.

### 8.5 Active Transport

The current public transport infrastructure and proposed site provisions for pedestrian facilities are considered adequate for development.

### 8.6 Impact on Surrounding Road Network

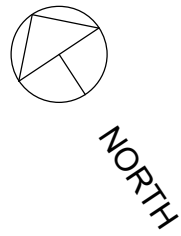
It is noted that within this masterplan assessment, the Seventeen Mile Rocks Rd / Kingsgate St / Service Road intersection has been identified to require an upgrade in order to operate at an appropriate level in the

future design horizons. The upgrade is identified prior to any additional development beyond the 39 residential allotments.

## 8.7 Conclusion

Based on the assessment contained within this report, TTM sees no traffic engineering reason why the relevant approvals should not be granted.

# Appendix A Proposed Site Plan



Fire Setback line

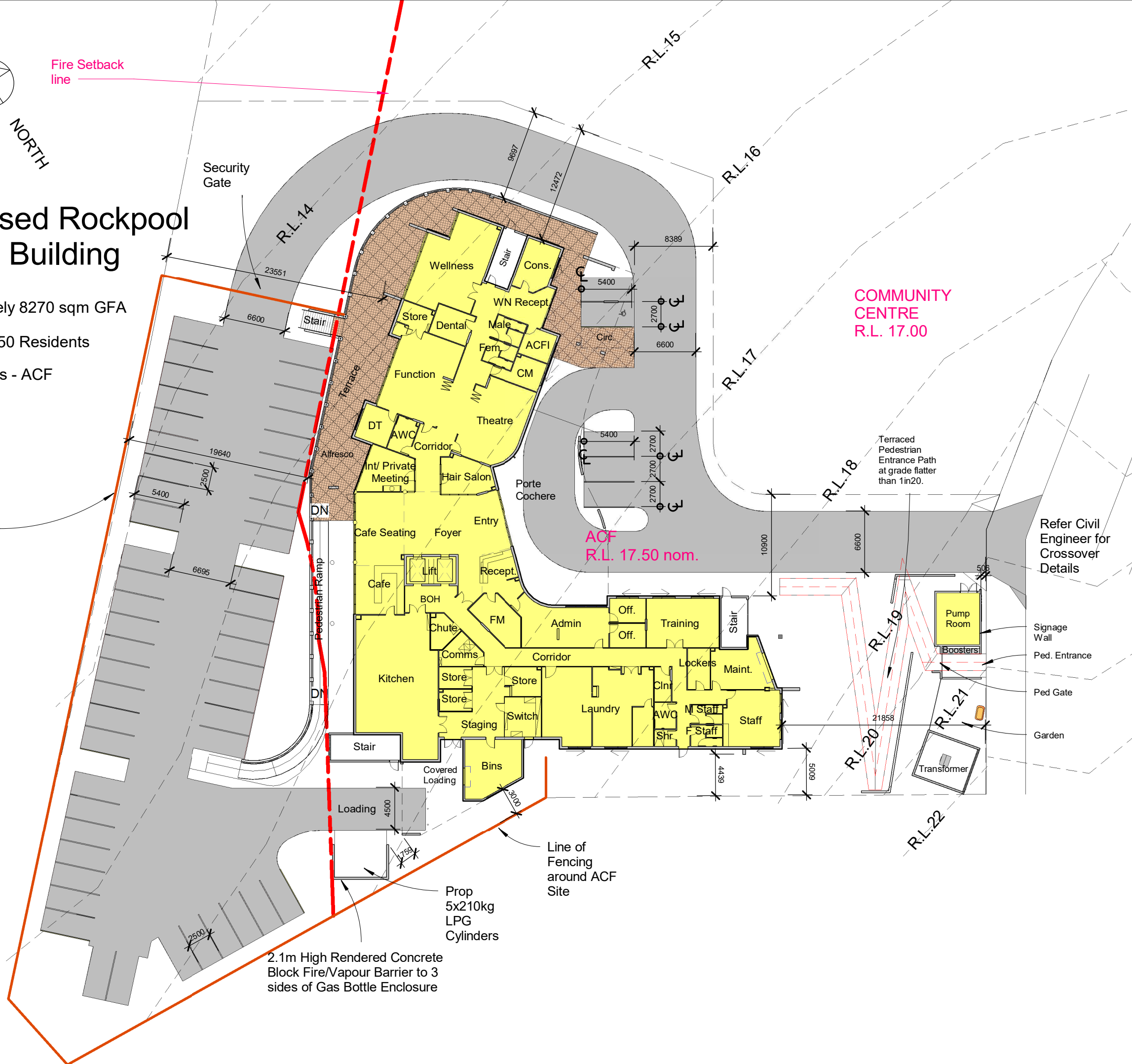
# Proposed Rockpool RACF Building

Approximately 8270 sqm GFA

6 Levels - 150 Residents

53 Car Parks - ACF

Line of Fencing around ACF Facilities



COMMUNITY CENTRE  
R.L. 17.00

ACF  
R.L. 17.50 nom.

Refer Civil Engineer for Crossover Details

Signage Wall  
Ped. Entrance  
Ped Gate  
Garden

GJG Architects

ABN 69 637 879 228

PO Box 1173  
Elanora QLD 4221

Telephone (07) 5520 1134



Project  
Oxley ACF

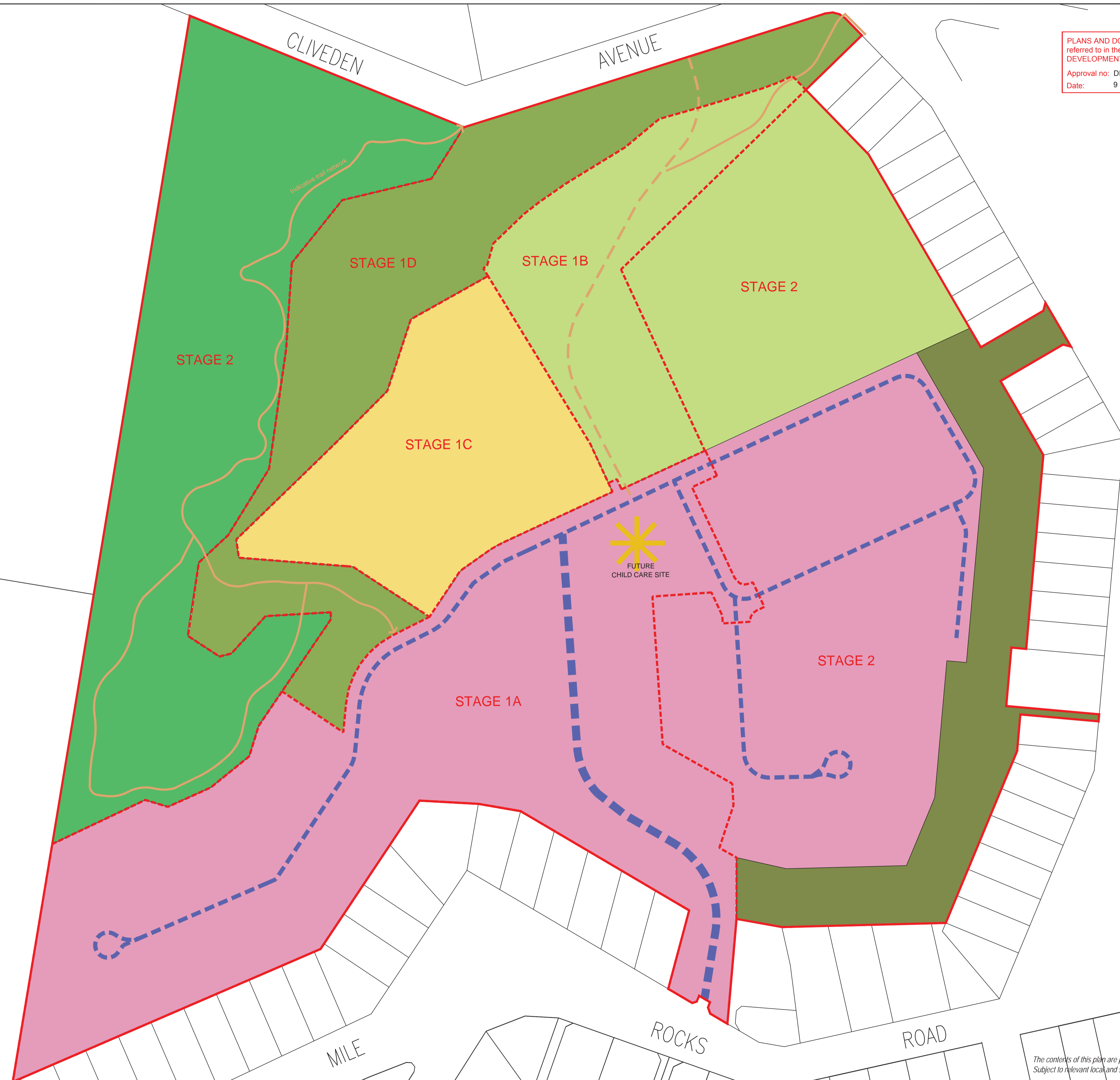
Client  
Rockpool

Issue	Date	Amendment
3	17.06.21	DA Issue
2	9.04.21	Prelim 1
1	8.03.21	Revision 6

Drawing Title	Drawing Number
Ground Floor - Overall	20-09-DA-4
Scale 1 : 400 @ A3 original	

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# Appendix B Oxley Priority Development Area Plan



PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL  
 Approval no: DEV2020/1099  
 Date: 9 December 2020



**place design group.**

BRISBANE  
 131 Robertson Street  
 PO Box 419  
 FORTITUDE VALLEY, QLD, 4006  
 P: +61 7 3852 3922  
 F: +61 7 3852 4766

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PROJECT  
**Oxley Priority Development Area**

CLIENT  
**EDQ**

- KEY PLAN / NOTES
- SUBJECT SITE
  - STAGING BOUNDARIES
  - PRECINCT 1 : ENVIRONMENTAL PROTECTION
  - PRECINCT 2a : DRAINAGE RESERVE (WATERWAY CORRIDOR)
  - PRECINCT 2b : PUBLIC RECREATION PARK
  - PRECINCT 3a : NEIGHBOURHOOD
  - PRECINCT 3b : LIFESTYLE AND CARE
  - HILLSIDE REMEDIATION
  - PRIVATE WATERWAY TREATMENT
  - INDICATIVE ROAD NETWORK
  - INDICATIVE TRAIL NETWORK
  - INDICATIVE EMERGENCY / MAINTENANCE ACCESS PATHWAY

NOT FOR CONSTRUCTION

ISSUE	CODE	ISSUE DESCRIPTION	BY	CHK	DATE

P/E - Preliminary | CA - Council Approval | T - Tender | CON - Construction

DRAWING TITLE  
**OVERALL MASTER PLAN**

DESIGN : CK  
 DOCUMENT : JB  
 PROJECT : 1018015  
 SCALE : 1:1000@A1  
 DATE : 17.08.2020



SHEET NUMBER : 1018015\_25  
 REVISION : Rev F

*The contents of this plan are preliminary and for discussion purposes only. Subject to relevant local and state planning approvals.*

# Scope & Design Objectives

This landscape concept has been prepared for Economic Development Queensland (EDQ) to support their development of the Oxley Priority Development Area (PDA) located across two lots:

- Lot 600 on SP236626 (53 Seventeen Mile Rocks Rd, Oxley, 4075)
- Lot 551 on SP142916 (113 Cliveden Ave, Oxley, 4075)

This landscape concept supports an urban design master plan (prepared separately by Place Design Group) which proposes the site's redevelopment as a boutique residential community set within a backdrop of natural bushland. It is understood the development's public areas would eventually be handed over as an asset by EDQ to Brisbane City Council (BCC) to maintain.


The landscape scope includes the local recreation park & stormwater management area, pocket park, drainage reserve (waterway corridor), conservation area, streetscape (public road dedication), and open space areas to the site entry, easements, hillside interfaces and fencing. Works will be split into two stages – Refer Dwg. 06 for staging. The retirement living facility, childcare centre and general allotment treatments are excluded from the landscape scope.


The landscape concept responds to criteria set out in EDQ's Oxley PDA Development Scheme, particularly relating to the design of welcoming and character-rich streets and shared recreation areas with safe and legible movement options for users. Other key design issues include environmental protection, hillside stability, flood resilience, bushfire risk mitigation and community safety.

# Landscape Concept Plan

- 01** Entry landscape with feature planting and repurposed entry heritage elements.
- 02** Internal streets lined with trees in planting areas. 1.5m wide concrete paths to streets.
- 03** Local recreation park with turf kick about space, shared path and shade trees.
- 04** Hillside interface areas stabilised by revegetation with native grasses and trees.
- 05** 80m road frontage to Drainage Reserve (Waterway Corridor) provides access to conservation area trail, strong public surveillance into area and road side parking for maintenance vehicles and public use. Turf area to trail entry with 1:4 fall away from road. 1.5m wide concrete path through turf narrows to deco recreational trail through revegetated areas of Reserve.
- 06** Stormwater management basins with 3m wide compacted gravel/cement or reinforced turf maintenance access between basins.
- 07** Drainage Reserve (Waterway Corridor)
- 08** Recreational trail (bush track/deco).
- 09** DDA compliant 4m wide shared concrete path / emergency and maintenance vehicle access.
- 10** 1.5m wide path connecting to footpath on Blackheath Road
- 11** Conservation Area
- 12** Pocket Park

 Existing trees to be retained in Stage 1

 Proposed new street trees

 Proposed new trees to rear of lots 1, 10, 14-22 for soil stabilisation. A minimum of 20 trees will be planted. Maintenance by lot owners. Refer Section D / Dwg. 05.

*Refer Dwg's 07-09 for landscape character descriptions and images for the different areas within the site.*

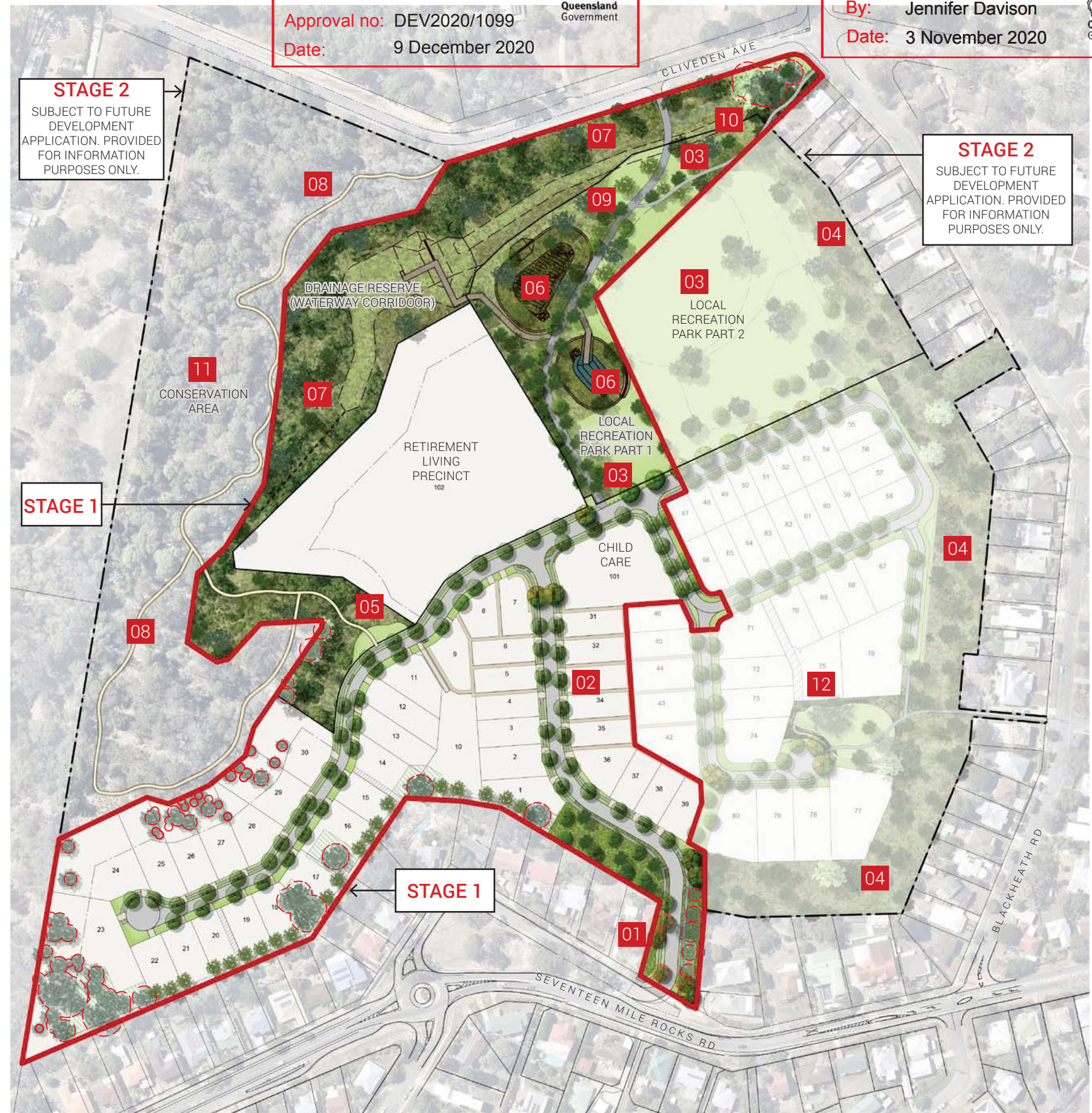
**PLANS AND DOCUMENTS**  
referred to in the PDA  
**DEVELOPMENT APPROVAL**

Approval no: DEV2020/1099  
Date: 9 December 2020



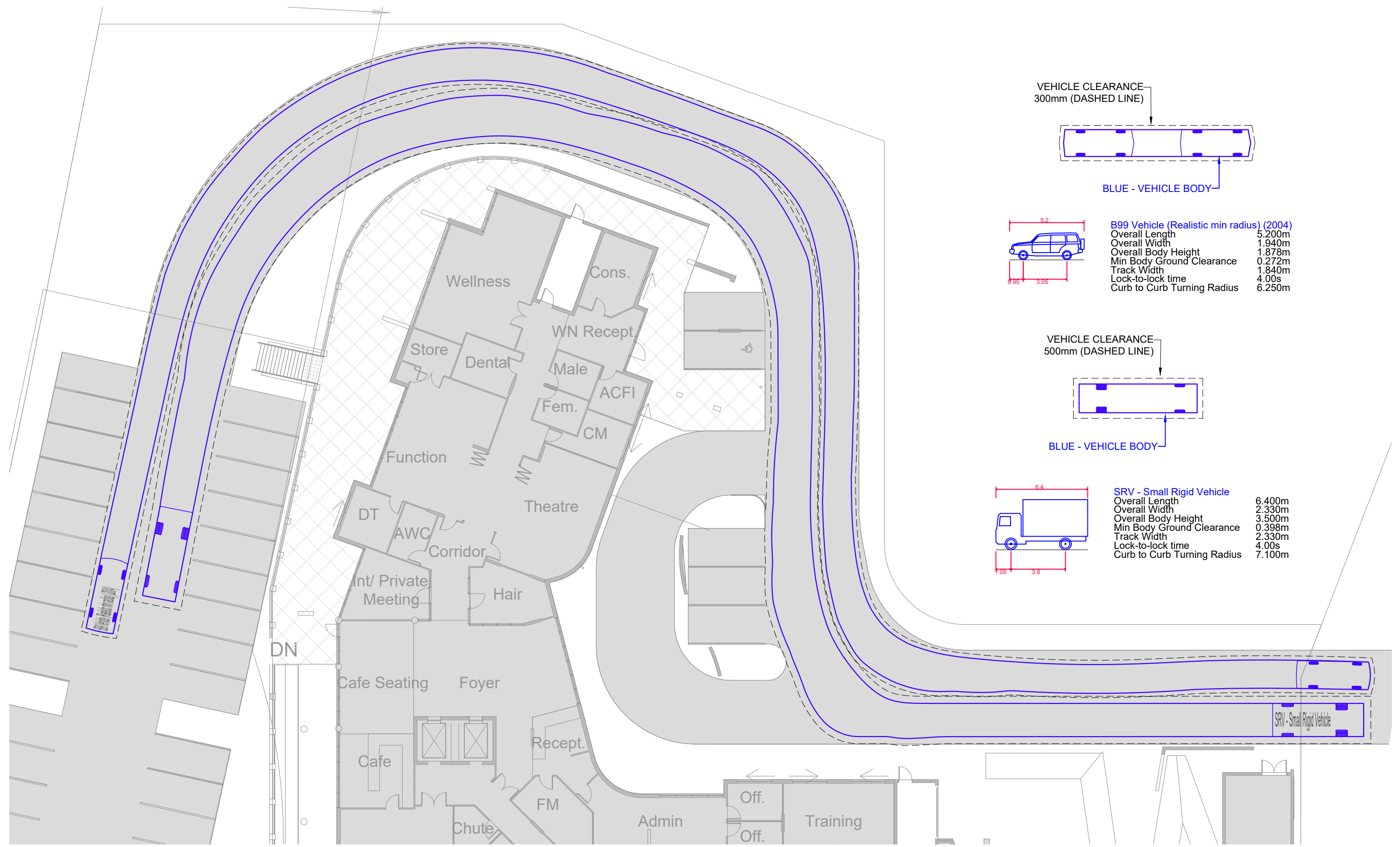
**AMENDED IN RED**

By: Jennifer Davison  
Date: 3 November 2020



## Appendix C Service Vehicle Swept Paths

I:\synergy\projects\21brt\21brt0016 seventeen mile rocks road, oxley - rockpool oxley (residential aged care)\3 - plans\itm\stage 1 - da\21\_04\_15\21brt0016.dwg



REV.	DATE	AMENDMENT DESCRIPTION	DRAWN	CHECKED	APPROVED
A	15-04-21	ORIGINAL ISSUE	SM	AS	AS

SCALE 0 2.5 5 7.5 10 12.5m  
SCALE 1:250 AT ORIGINAL SIZE

NORTH

CLIENT  
**McNab DEVELOPMENTS PTY LTD**

**ttm**

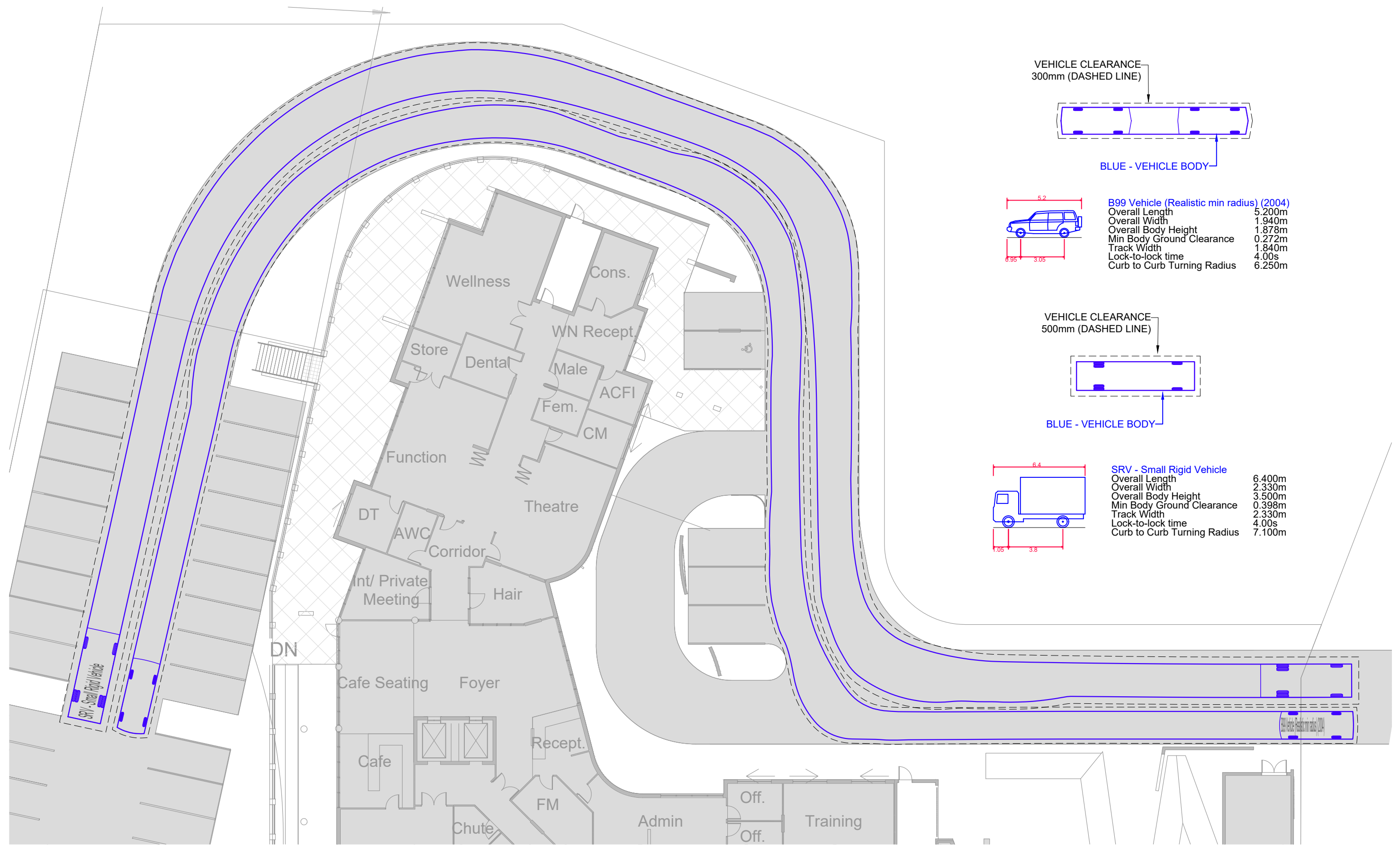
**TTM CONSULTING PTY LTD**  
 ABN 65 010 868 621  
 LEVEL 8, 369 Ann Street, BRISBANE, QLD, 4000  
 P.O. BOX 12015, BRISBANE, QLD, 4003  
 T: (07) 3327 9500 F: (07) 3327 9501  
 E: ttmbris@ttmgroup.com.au W: www.ttmgroup.com.au

PROJECT  
**SEVENTEEN MILE ROCKS ROAD, OXLEY - ROCKPOOL OXLEY**

DRAWING TITLE  
**SWEPT PATH ANALYSIS  
B99 EGRESS & SRV ACCESS  
DESIGN VEHICLES - SRV & B99**

PROJECT NUMBER <b>21BRT0016</b>	ORIGINAL SIZE <b>A3</b>
DRAWING NUMBER <b>21BRT0016-01</b>	REVISION <b>A</b>
DATE <b>15 Apr 2021</b>	SHEET <b>1 OF 4</b>

I:\synergy\projects\21brt\21brt0016 seventeen mile rocks road, oxley - rockpool oxley (residential aged care)\3 - plans\itm\stage 1 - da\21\_04\_15\21brt0016.dwg



REV.	DATE	AMENDMENT DESCRIPTION	DRAWN	CHECKED	APPROVED
A	15-04-21	ORIGINAL ISSUE	SM	AS	AS

SCALE 1:250 AT ORIGINAL SIZE

NORTH

CLIENT: **McNab DEVELOPMENTS PTY LTD**

**ttm**

**TTM CONSULTING PTY LTD**

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PROJECT: **SEVENTEEN MILE ROCKS ROAD, OXLEY - ROCKPOOL OXLEY**

DRAWING TITLE: **SWEPT PATH ANALYSIS  
 B99 ACCESS & SRV EGRESS  
 DESIGN VEHICLES - SRV & B99**

PROJECT NUMBER	ORIGINAL SIZE
21BRT0016	A3
DRAWING NUMBER	REVISION
21BRT0016-01	A
DATE	SHEET
15 Apr 2021	2 OF 4

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REV.	DATE	AMENDMENT DESCRIPTION	DRAWN	CHECKED	APPROVED
A	15-04-21	ORIGINAL ISSUE	SM	AS	AS

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SCALE 1:250 AT ORIGINAL SIZE

NORTH

CLIENT  
**McNab DEVELOPMENTS  
PTY LTD**



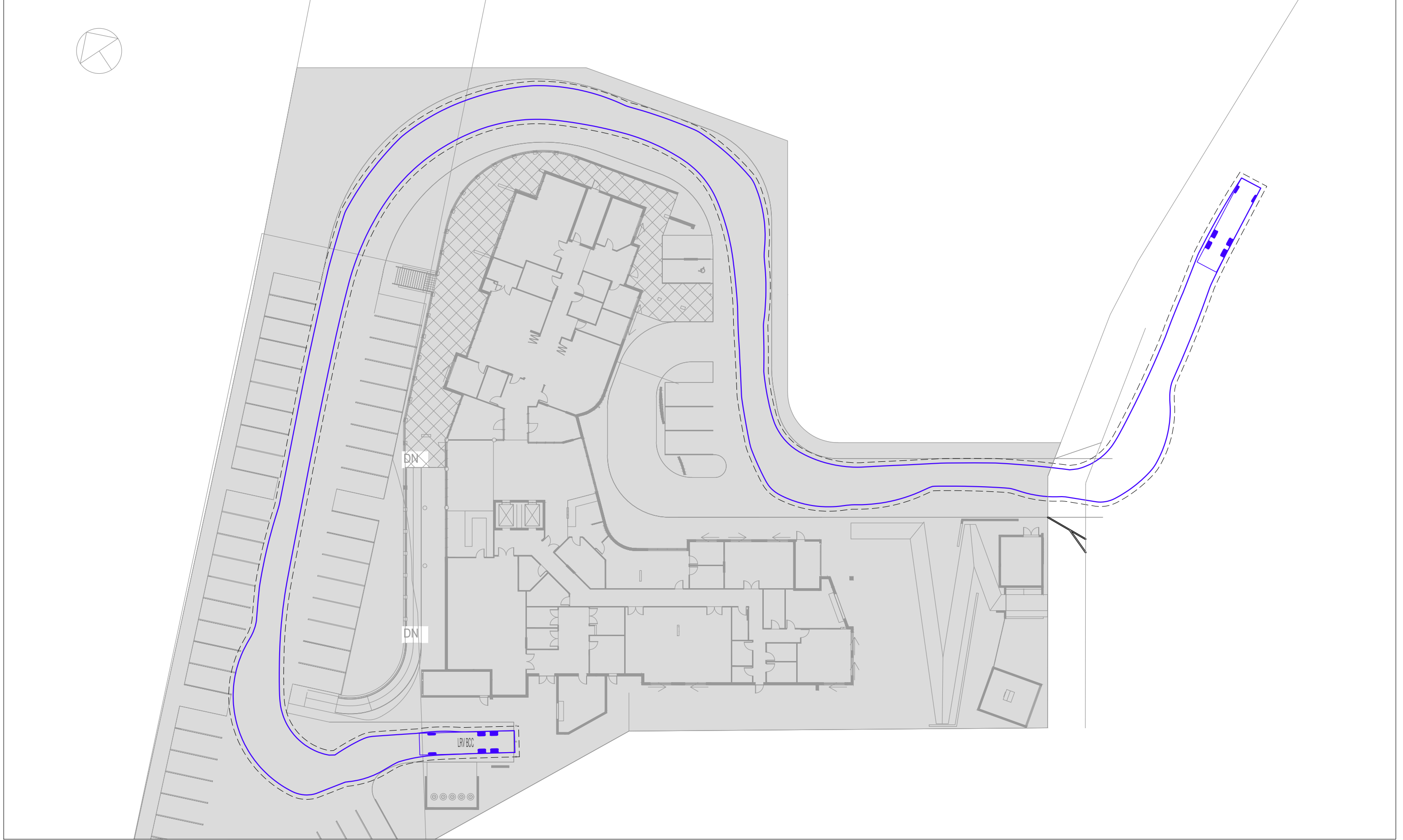
**TTM CONSULTING PTY LTD**  
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PROJECT  
**SEVENTEEN MILE ROCKS ROAD, OXLEY - ROCKPOOL OXLEY**

DRAWING TITLE  
**SWEPT PATH ANALYSIS  
B99 ACCESS & SRV EGRESS  
DESIGN VEHICLES - SRV & B99**

PROJECT NUMBER 21BRT0016	ORIGINAL SIZE A3
DRAWING NUMBER 21BRT0016-01	REVISION A
DATE 15 Apr 2021	SHEET 3 OF 4

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A	15-04-21	ORIGINAL ISSUE	SM	AS	AS

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SCALE 1:250 AT ORIGINAL SIZE

NORTH

CLIENT  
**McNab DEVELOPMENTS  
PTY LTD**

**ttm**

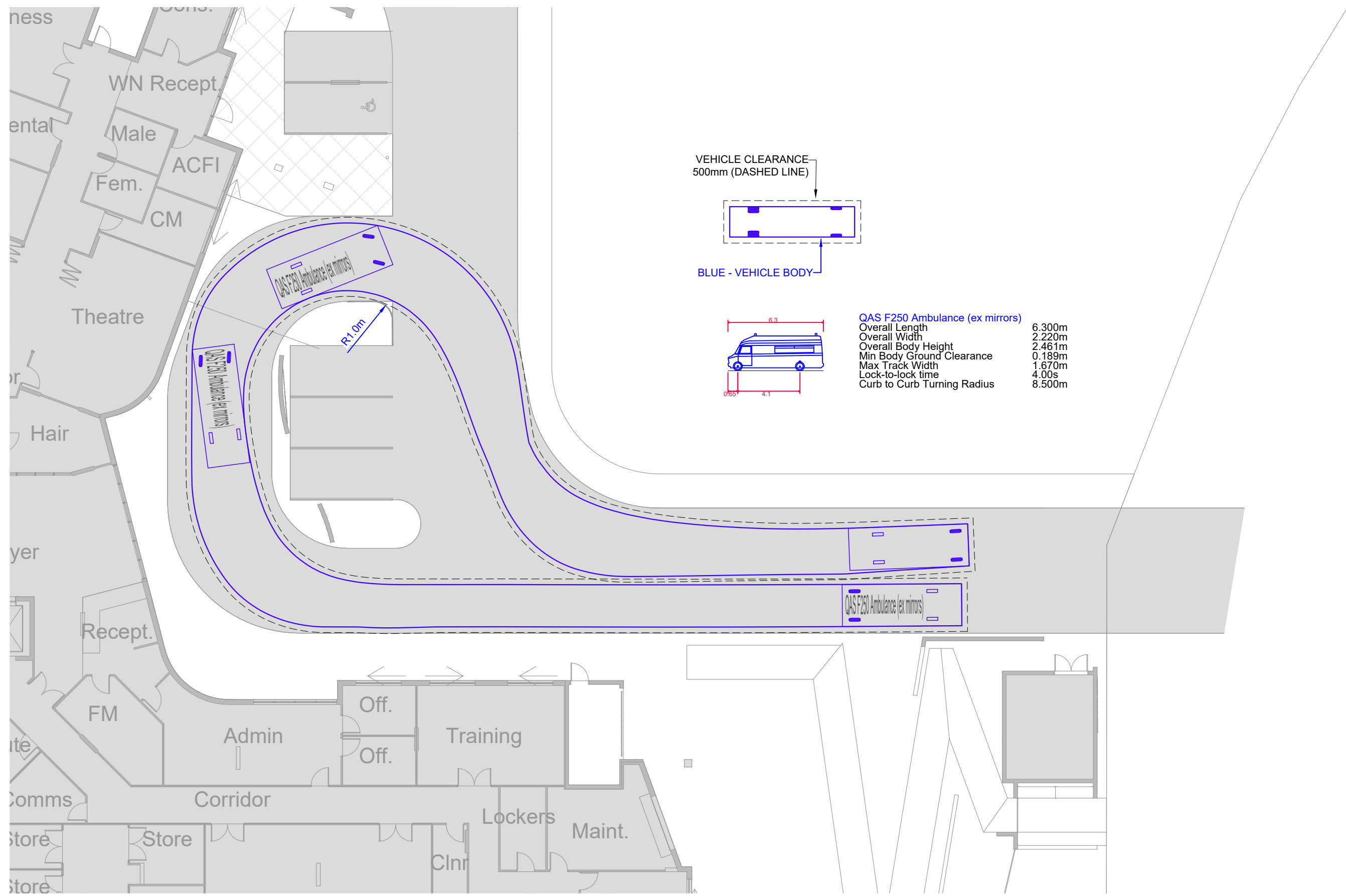
**TTM CONSULTING PTY LTD**  
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PROJECT  
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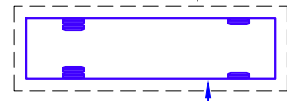
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**SWEPT PATH ANALYSIS  
B99 ACCESS & SRV EGRESS  
DESIGN VEHICLES - SRV & B99**

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DRAWING NUMBER 21BRT0016-01	REVISION A
DATE 15 Apr 2021	SHEET 4 OF 4

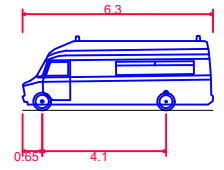
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VEHICLE CLEARANCE  
500mm (DASHED LINE)



BLUE - VEHICLE BODY



**QAS F250 Ambulance (ex mirrors)**  
 Overall Length 6.300m  
 Overall Width 2.220m  
 Overall Body Height 2.461m  
 Min Body Ground Clearance 0.189m  
 Max Track Width 1.670m  
 Lock-to-lock time 4.00s  
 Curb to Curb Turning Radius 8.500m

REV.	DATE	AMENDMENT DESCRIPTION	DRAWN	CHECKED	APPROVED
A	15-04-21	ORIGINAL ISSUE	SM	AS	AS

SCALE 1:200 AT ORIGINAL SIZE

NORTH

CLIENT  
**McNab DEVELOPMENTS PTY LTD**

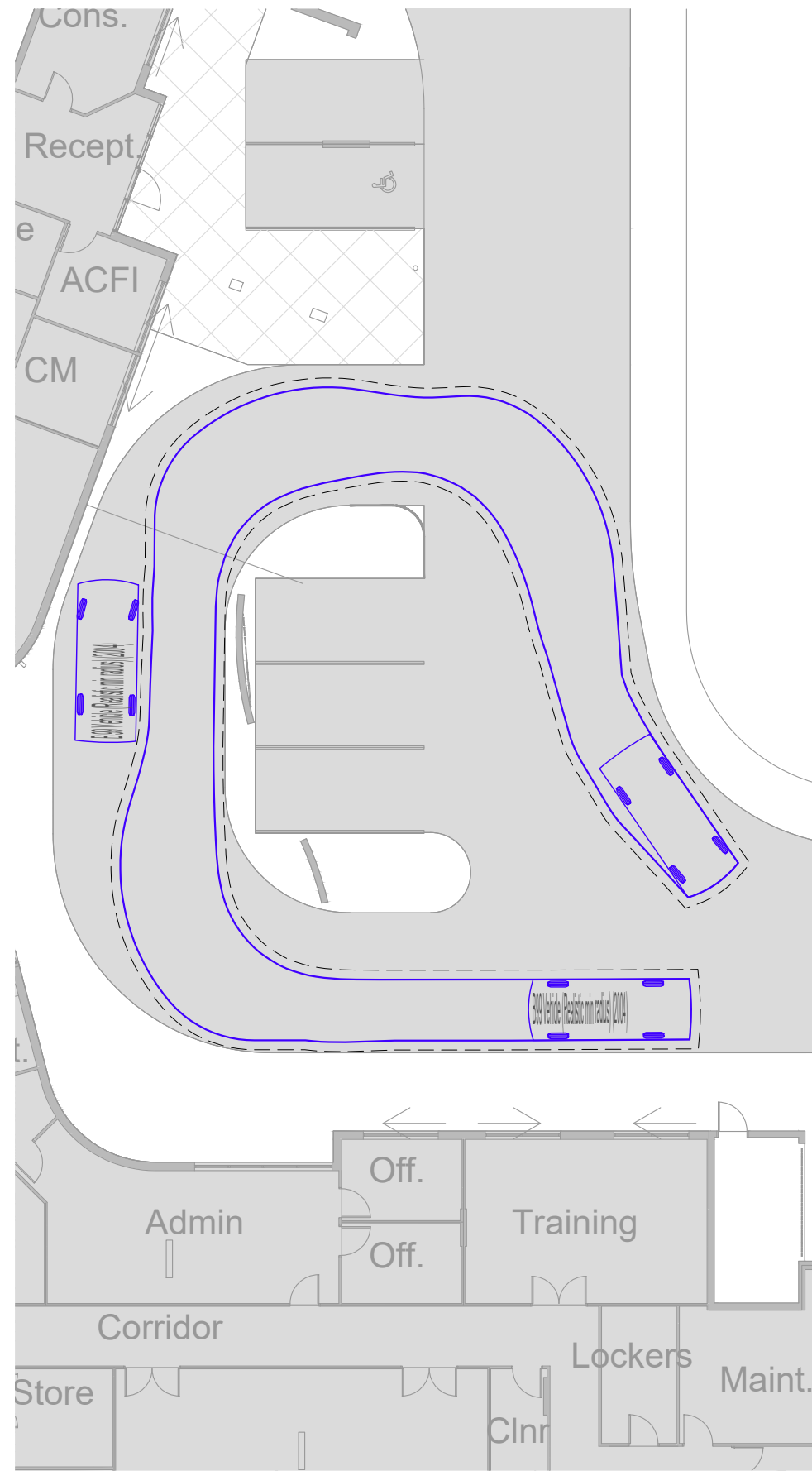
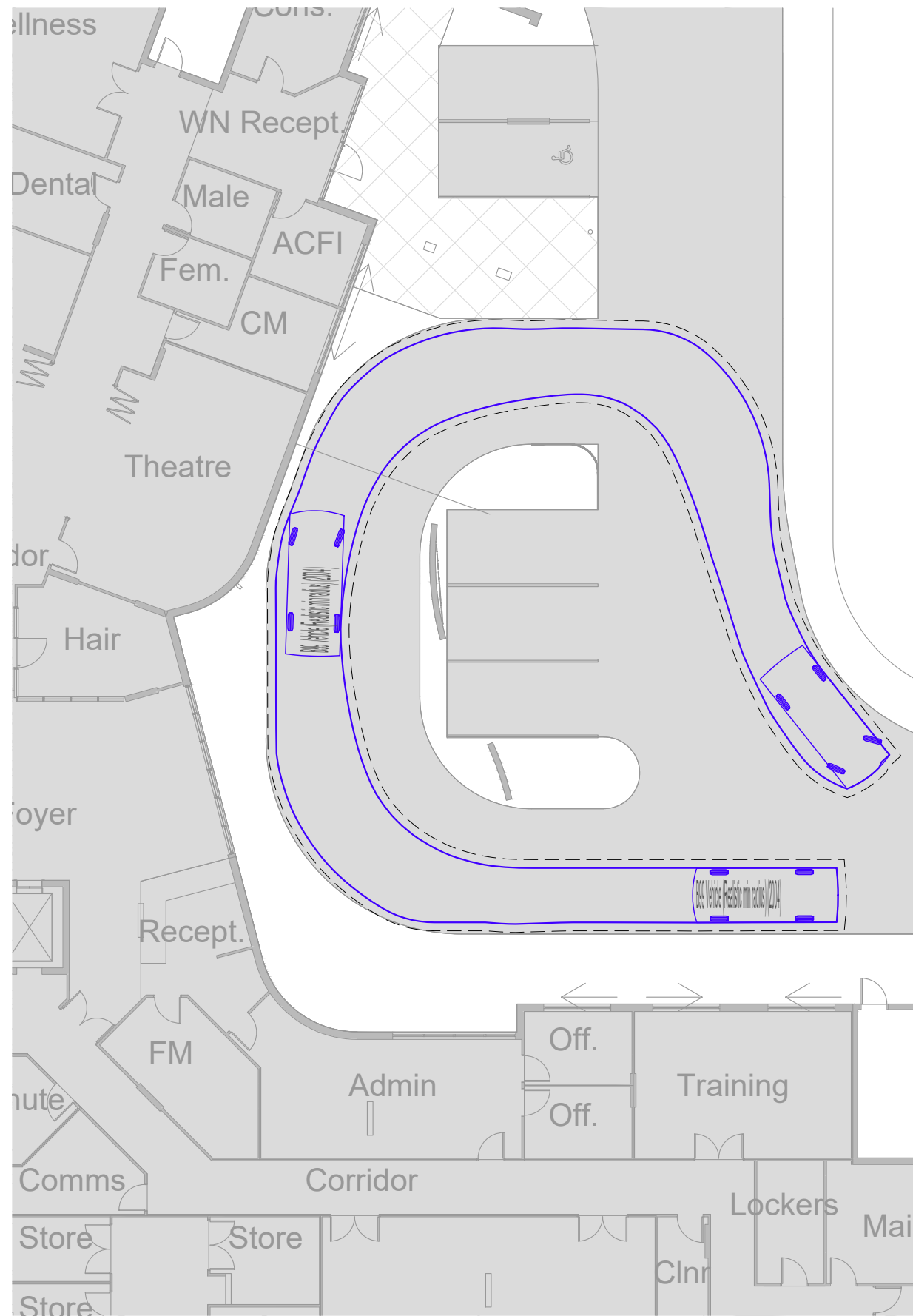
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 ABN 65 010 868 621  
 LEVEL 8, 369 Ann Street, BRISBANE, QLD, 4000  
 P.O. BOX 12015, BRISBANE, QLD, 4003  
 T: (07) 3327 9500 F: (07) 3327 9501  
 E: ttmbri@ttmgroup.com.au W: www.ttmgroup.com.au

PROJECT  
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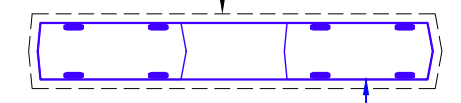
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**SWEPT PATH ANALYSIS  
AMBULANCE SITE ACCESS/EGRESS  
DESIGN VEHICLE - F250 AMBULANCE**

PROJECT NUMBER	ORIGINAL SIZE
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DRAWING NUMBER	REVISION
21BRT0016-02	A
DATE	SHEET
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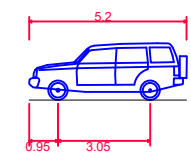
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VEHICLE CLEARANCE  
300mm (DASHED LINE)



BLUE - VEHICLE BODY



**B99 Vehicle (Realistic min radius) (2004)**  
 Overall Length 5.200m  
 Overall Width 1.940m  
 Overall Body Height 1.878m  
 Min Body Ground Clearance 0.272m  
 Track Width 1.840m  
 Lock-to-lock time 4.00s  
 Curb to Curb Turning Radius 6.250m

REV.	DATE	AMENDMENT DESCRIPTION	DRAWN	CHECKED	APPROVED
A	15-04-21	ORIGINAL ISSUE	SM	AS	AS

SCALE  
0 2 4 6 8 10m  
SCALE 1:200 AT ORIGINAL SIZE

NORTH

CLIENT  
**McNab DEVELOPMENTS PTY LTD**

**ttm**

**TTM CONSULTING PTY LTD**  
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 LEVEL 8, 369 Ann Street, BRISBANE, QLD, 4000  
 P.O. BOX 12015, BRISBANE, QLD, 4003  
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 E: ttmbris@ttmgroup.com.au W: www.ttmgroup.com.au

PROJECT  
**SEVENTEEN MILE ROCKS ROAD, OXLEY - ROCKPOOL OXLEY**

DRAWING TITLE  
**SWEPT PATH ANALYSIS  
B99 DROP OFF AREA & CIRCULATION  
DESIGN VEHICLE - B99**

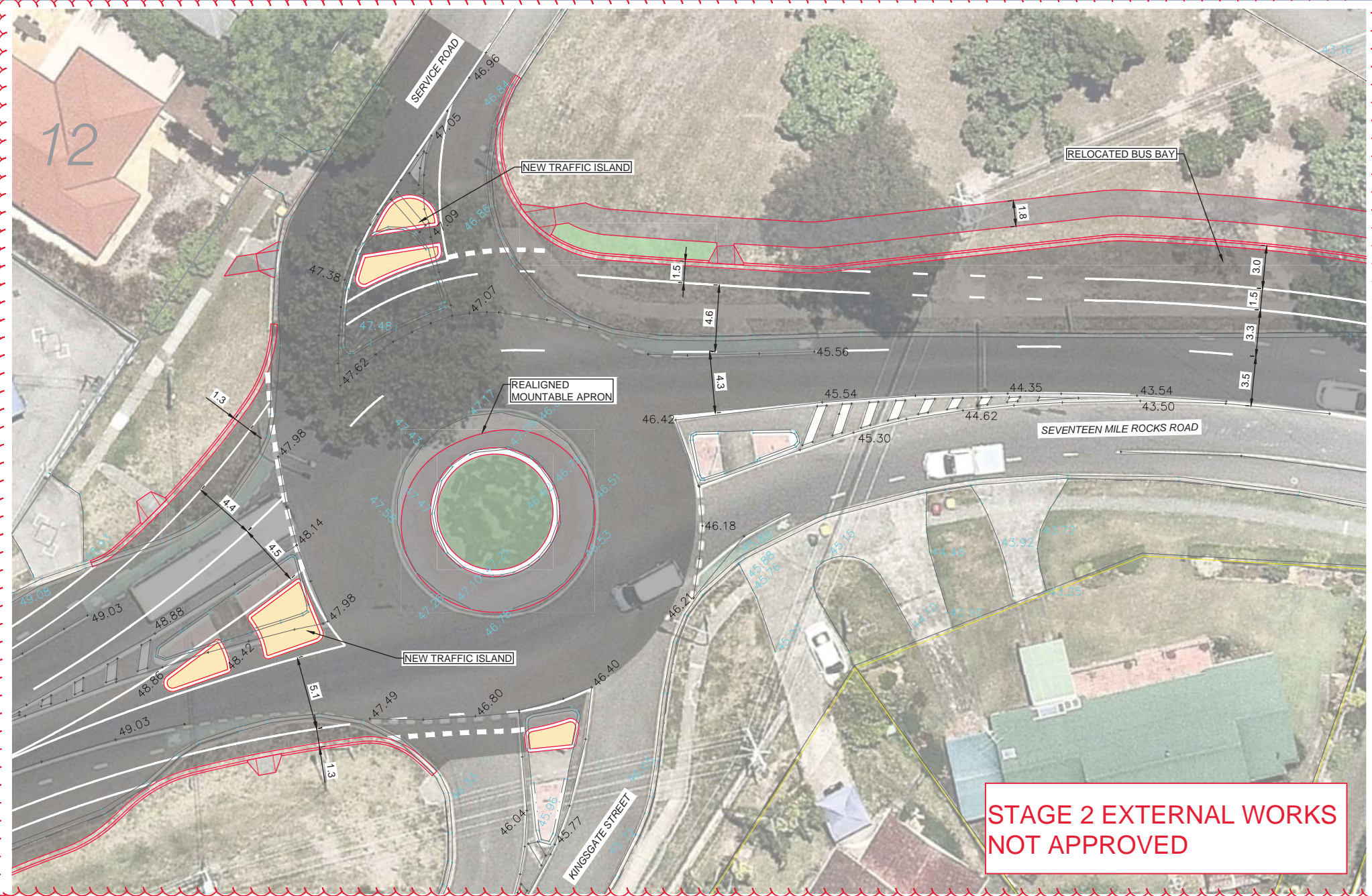
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21BRT0016	A3
DRAWING NUMBER	REVISION
21BRT0016-03	A
DATE	SHEET
15 Apr 2021	1 OF 1

Appendix D    Seventeen Mile Rocks Rd /  
Kingsgate St / Service Rd  
Intersection Upgrade Concept Plan

L:\synergy\projects\18bri\18bri0087\_oxley\_state\_college\_redevelopment\3 - plans\18bri0087\_oxley\_state\_college\_redevelopment\3 - plans\18bri0087-01d\_02c\_03b.dwg

REFER SHEET 2 FOR CONTINUATION

REFER SHEET 4 FOR CONTINUATION



STAGE 2 EXTERNAL WORKS  
NOT APPROVED

REV.	DATE	ORIGINAL ISSUE	AMENDMENT DESCRIPTION	DRAWN	CHECKED	APPROVED
C	20-08-20	FURTHER ISSUES (BASE PLAN UPDATE)		DG	DG	DG
B	06-06-20	RFI ISSUE		DG	DG	DG
A	03-06-20	ORIGINAL ISSUE		DG	DG	DG

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SCALE 1:250 AT ORIGINAL SIZE

NORTH

CLIENT  
**ECONOMIC DEVELOPMENT QUEENSLAND**

**ttm**

**TTM CONSULTING PTY LTD**  
 ABN 65 010 868 621  
 LEVEL 8, 369 Ann Street, BRISBANE, QLD, 4000  
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 E: ttmbri@ttmgroup.com.au W: www.ttmgroup.com.au

PROJECT  
**FORMER OXLEY SECONDARY COLLEGE REDEVELOPMENT**

DRAWING TITLE  
**EXTERNAL ROAD WORKS - SEVENTEEN MILE ROCKS ROAD  
WORKS POST STAGE 1A RESIDENTIAL DWELLINGS (39 LOTS)  
PRELIMINARY CONCEPT DESIGN - DETAIL PLAN**

PROJECT NUMBER	ORIGINAL SIZE
18BRT00087	A3
DRAWING NUMBER	REVISION
18BRT0087-02	C
DATE	SHEET
20 Aug 2020	3 OF 4