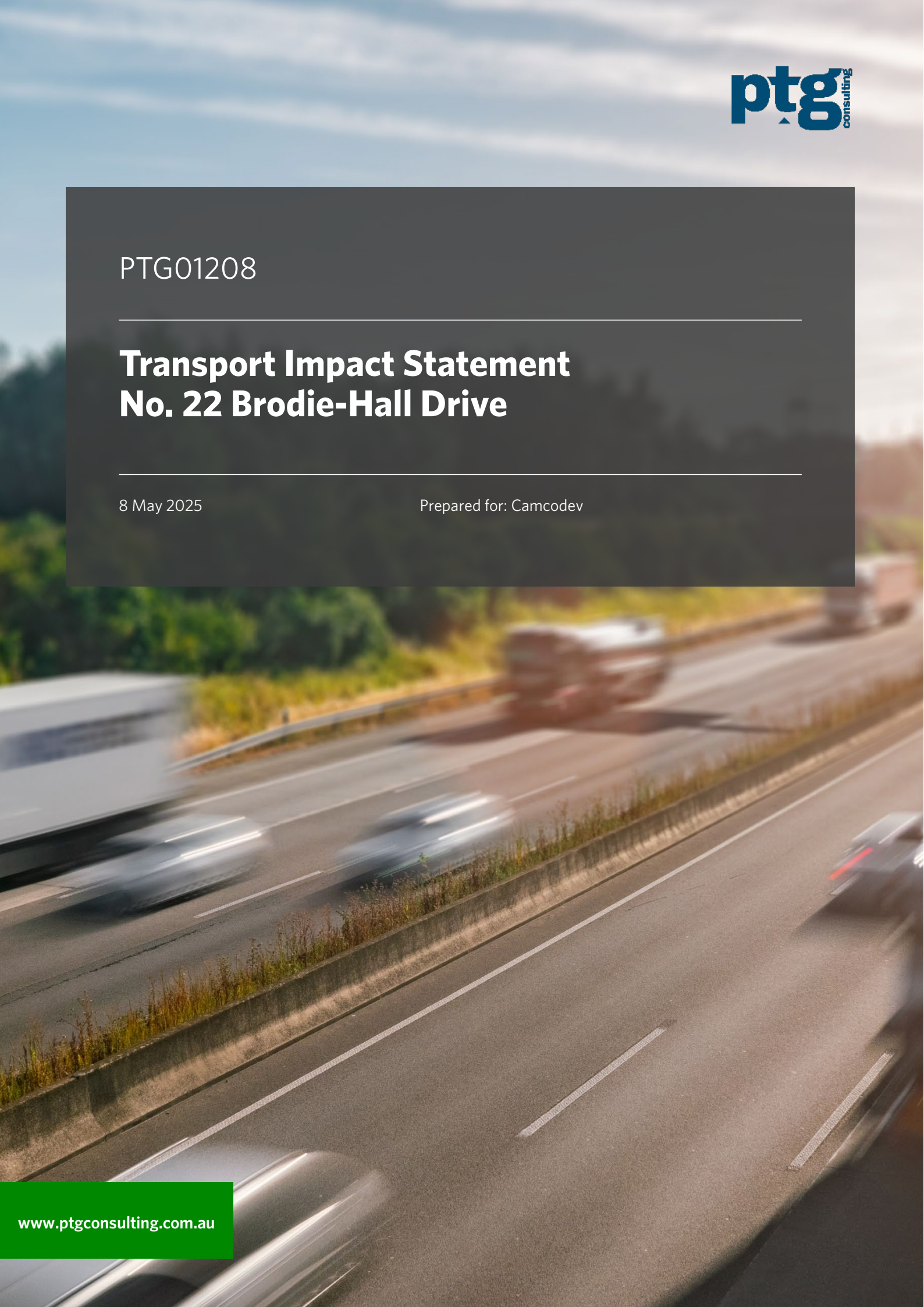

PTG01208

Transport Impact Statement
No. 22 Brodie-Hall Drive

8 May 2025

Prepared for: Camcodev

www.ptgconsulting.com.au

CONTENTS

REPORT DETAILS

Unique Document Identification

Document Title	Transport Impact Statement – 22 Brodie-Hall Drive, Bentley
Project Number	PTG.01208
Document ID	Rev B
Client	Camcodev

PTG Consulting Office Details

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Revision Details

Revision No.	Date	Comments	Prepared By	Approved By
Rev A	2 December 2024	For Issue	[redacted]	[redacted]
Rev B	8 May 2025	Minor Updates	[redacted]	[redacted]

1 INTRODUCTION

1.1 Background

PTG Consulting (PTG) has been commissioned by **Camcodev** to prepare a Transport Impact Statement (TIS) for the proposed childcare centre development located at No. 22 Brodie Hall Drive, Bentley Technology Park, Bentley, WA, 6102.

This report has been prepared in accordance with the *Western Australian Planning Commission (WAPC) Transport Assessment Guidelines for Developments: Volume 4– Individual Developments (2016)* and the TIS Checklist is included at **Appendix A**.

Specifically, this report aims to assess the operations of the proposed development internally and its connections to the adjacent road network, with a focus on traffic volumes, access and accessibility.

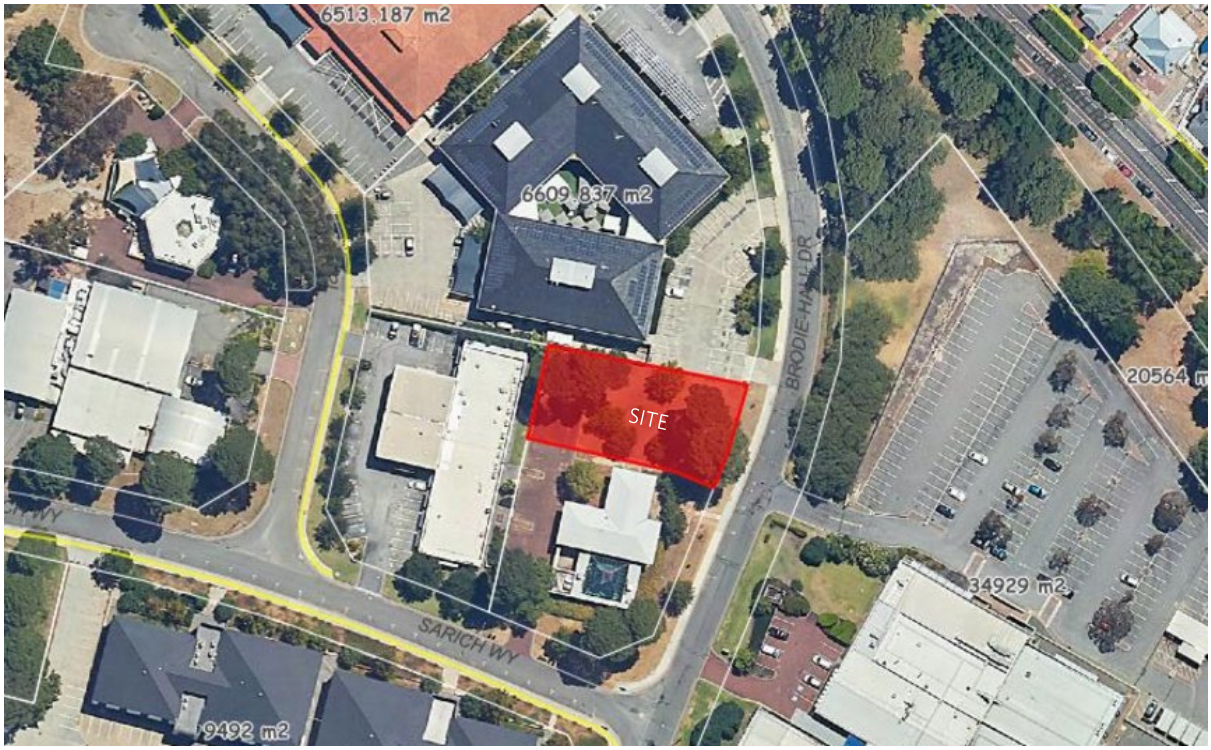
This report also outlines the requirements and opportunities associated with traffic and transport within the development, referencing relevant Council and WAPC policies and guidelines as well as best-practice planning within Western Australia.

2 PROPOSED DEVELOPMENT

2.1 Site Location

The site is located at No. 22 Brodie Hall Drive, Bentley as shown in **Figure 1**. The Site is predominately vacant, with a portion at the rear being used for car parking.

Figure 1 - Site Location

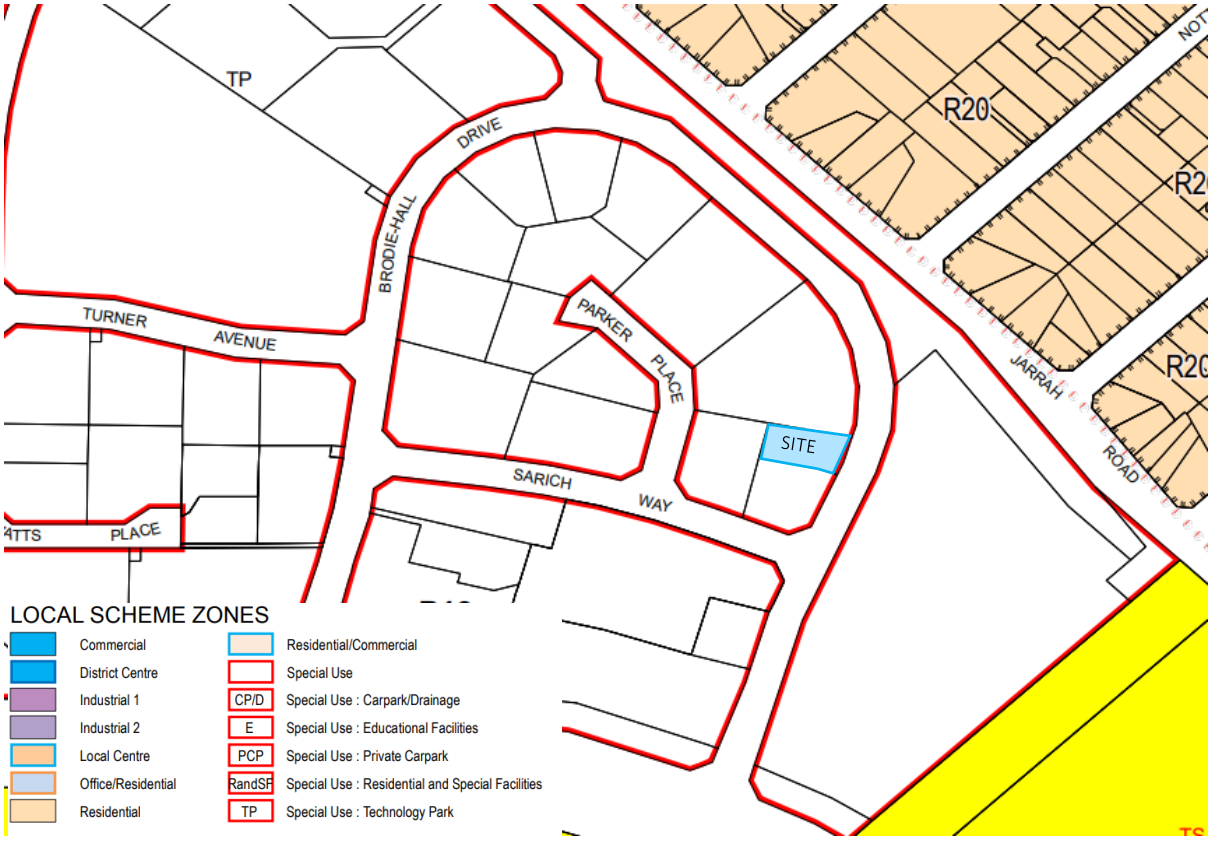


Source: Intramaps (2024)

2.2 Context with Surrounds

Pursuant to the provision of the *Town of Victoria Park Local Planning Scheme No. 1* (LPS1), the Site is zoned '*Special Use*' and is wholly surrounded by other special uses. **Figure 2** shows the Site zoning.

Figure 2 Site Zoning



Source: Town of Victoria Park LPS 1

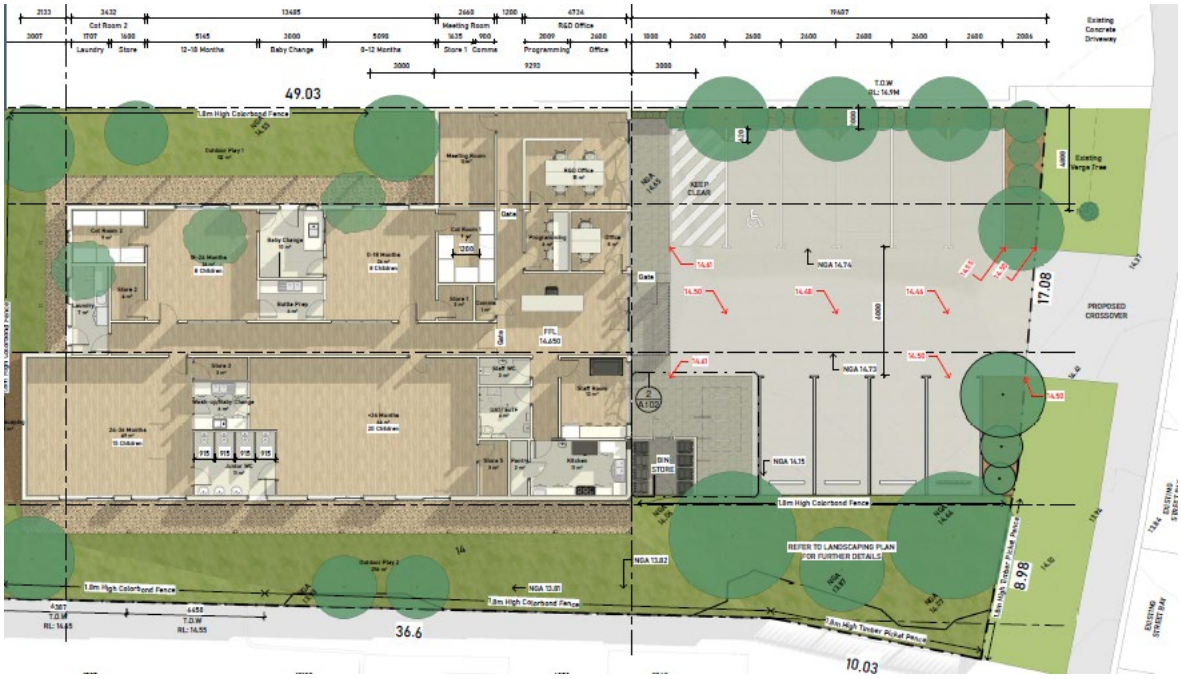
2.3 Development Land Use

The proposal is for a Child Care Centre, comprising of the following site-specific design components:

- Up to 51 children;
- Up to 9 staff members; and
- 9 car parking bays (including 1 ACROD bay).

The layout of the proposed childcare centre at the Site is shown below in **Figure 3.**

Figure 3 – Proposed Layout



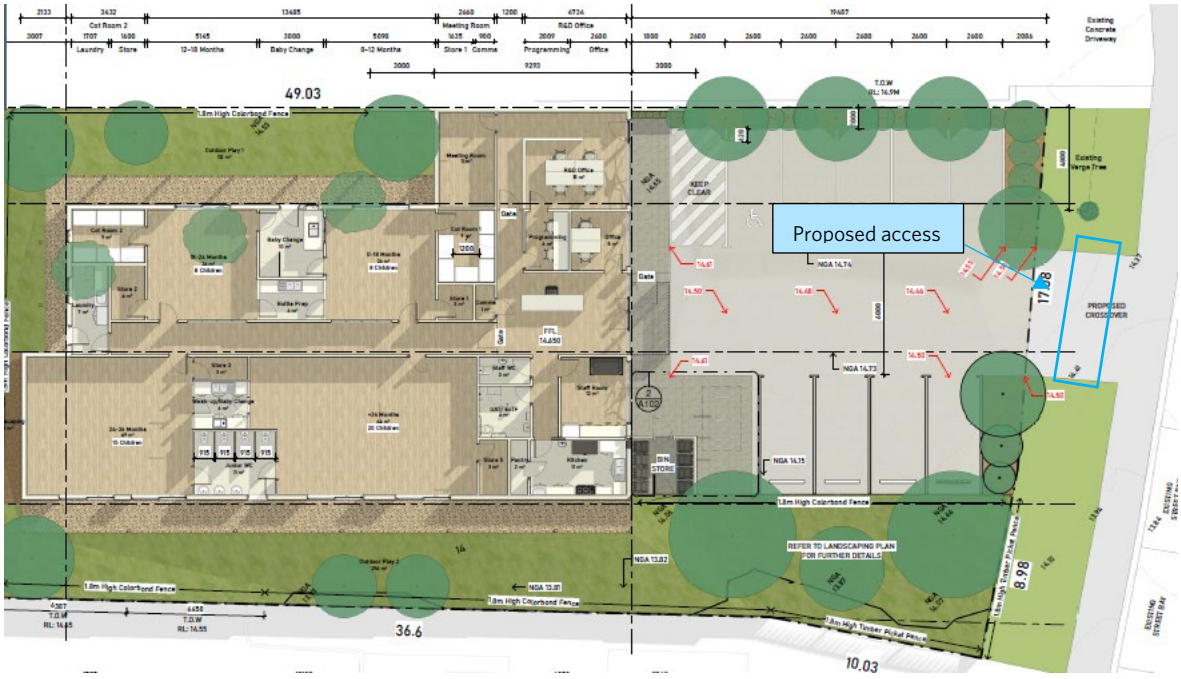
Source: Bloom Architecture (2024)

3 VEHICULAR ACCESS AND PARKING

3.1 Access Arrangements

A new two-way vehicular access is proposed via Brodie-Hall Drive to the east of the Site. The access arrangements are shown in **Figure 4**. From a safety perspective and to ensure pedestrian priority, the crossover design could use a coloured tint that differentiates from the colour of the footpath to provide adequate lineation.

Figure 4 – Access Arrangements



Source: Bloom Architecture (2024)

3.2 Public, Private, Disabled Parking Set Down/Pick Up

Upon review of the *Town of Victoria Local Planning Policy No. 23 – Bicycle Parking, Car Parking and Access for Non-Residential Development,* no car parking requirements are set in place for childcare centres.

It is anticipated that the Site will accommodate a maximum of 51 children and 9 staff members.

A total of 9 car parking bays are provided on Site, 4 of those bays will be allocated for staff only, whilst the other 5 bays will be available for parents to use during pick-up/drop-off times. Part time staff will also be able to use some of these 6 bays outside of the peak pick-up/drop off times.

Due to the nature of a childcare centre, the key parent pick-up/drop-off periods typically extend over a 90–120-minute period, related to external factors such as school and work starting times. This means that parking demand is spread over a considerable period of time. With the number of bays available for drop-off/pick-up, and the short average duration of drop-off/pick-up activity (less than 8 minutes – NSW RTA), it is unlikely that all visitor bays would be occupied more than momentarily. With the peak inbound traffic flow calculated at 21 vehicles per hour, with an average stay of 8 minutes, the average occupancy of the visitor bays has been calculated to show that each bay would only be occupied less than 50% of the time during the peak hour.

It is also unlikely that the proposed childcare centre would operate as its theoretical maximum capacity at all times. The average actual attendance in similar facilities has been shown to be approximately 85% of legal capacity, rarely reaching 90%.

Additionally, a high number of on-street car parking bays are provided along Brodie-wall Drive and Sarich Way. Whilst these bays appear heavily occupied during the work day, early in the morning and late in the evening it is likely that visitors will be able to access these bays during peak pick-up/drop-off times given children are typically dropped off before the work day and picked up after work. Given the location of the proposed child care centre is not nearby to residential areas, it is likely the parents of enrolled children at the centre are likely to either work or study in the area and may park their cars at their place of business and walk their children to the centre.

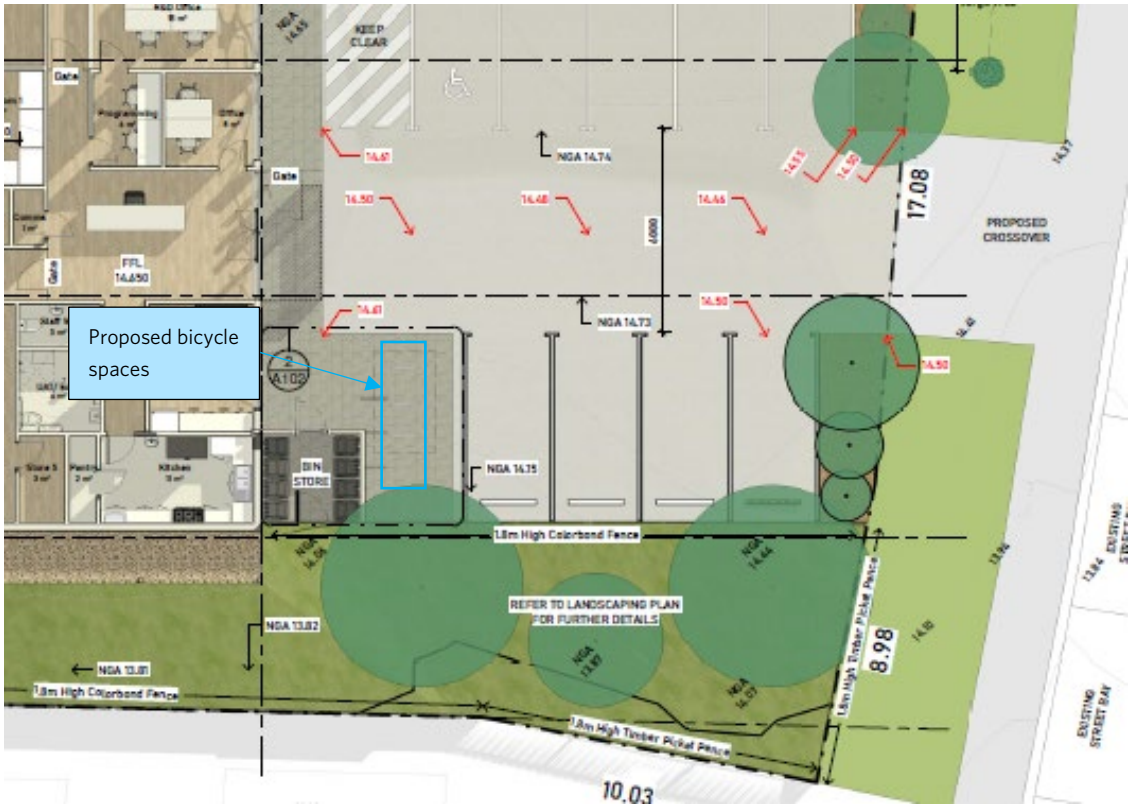
Overall, it is considered that the on-site visitor and staff parking bays proposed are sufficient and can cater for staff and potential parent pick-up/drop-off, with the parking supply sufficient for the predicted peak demand, even when the centre operates at maximum capacity.

Furthermore, should a delineated pedestrian route be required on-site for visitors during pick-up/drop-off, a line marked travel path along the southern edge of the car park aisle could be provided.

3.2.1 Bicycle Parking

Three (3) double bike racks are proposed on-site, which can accommodate 6 bicycles. The bicycle spaces have been provided near the front entrance of the proposed childcare centre, as shown in **Figure 5**. As the bin store would only be accessed periodically, longer bikes with trailers would be able to overhang the store entry during morning and afternoon drop off / pickup without issue.

Figure 5 Bicycle Parking Space Locations



Source: Bloom Architecture (2024)

Bicycle spaces should be designed to accommodate bicycles with child seats as per the dimensions specified in *AS2890.3 – Parking Facilities: Bicycle Parking*.

4 SERVICE/DELIVERY VEHICLES (NON-RESIDENTIAL)

4.1 Access Arrangements

Swept paths were conducted using a B85 vehicle, as shown in **Appendix C**. No significant issues were identified, and the vehicle was able to manoeuvre through the Site.

To accommodate the site access, up to 3 on-street parking bays will need to be closed / removed to allow access and appropriate sight lines for exiting vehicles.

4.2 On/Off-Site Loading Facilities

Deliveries are expected via vans or small delivery vehicles that can utilise either the on-site parking bays or on-street bays during off peak times.

5 SERVICE VEHICLES (RESIDENTIAL)

Not applicable as the proposal is for a Child Care development (see next section).

6 HOURS OF OPERATION (NON-RESIDENTIAL)

The proposed Child Care Centre is proposed to operate during the following days and times:

- Monday to Friday (7:00am to 6:00pm) (Monday to Friday).

7 TRAFFIC VOLUMES

7.1 Development - Daily or Peak Traffic Volumes

The traffic generation rates from the *Institute of Transport Engineers (ITE) Trip Generation Manual 11th Edition* were used to estimate the number of vehicles generated by the proposed development.

Table 2 shows the trip generation rates for the proposed development, **Table 3** shows the directional distribution and **Table 4** shows the total traffic generated by the Site.

Table 1 – Trip Generation Rates

Land Use	Source	Yield	Trip Generation Rate (2-way)		
			AM Peak	PM Peak	Daily
Child Care Centre	ITE 565	51 Children	0.79	0.81	4.09

Table 2 – Trip Distribution

Land Use	AM Peak		PM Peak		Daily	
	IN	OUT	IN	OUT	IN	OUT
Child Care Centre	53%	47%	47%	53%	50%	50%

Table 3 – Trip Generation Summary

Land Use	AM Peak		PM Peak		Daily	
	IN	OUT	IN	OUT	IN	OUT
Child Care Centre	21	19	19	22	104	104
Total	40		41		208	

The estimated peak hour of trip generation is 40 vehicles in the AM Peak Hour, 41 vehicles in the PM Peak Hour and 208 Daily trips. Based on the numbers above, this low volume of trip generation if anticipated to have only a low to moderate impact on the surrounding road network.

7.2 Type of Vehicles

Based on the land use the main type of vehicles will be private cars accessing the development and occasional service/delivery vehicles, likely to be a small van size.

8 TRAFFIC MANAGEMENT ON FRONTAGE STREETS

8.1 Existing Road Network and Traffic Management

The road network within Western Australia is defined by the Main Roads WA Road Hierarchy which describes the function, characteristic and management of each type of road. A description of each road type as per Main Roads WA Road Hierarchy criteria is summarised in **Table 5** below.

Table 4 – Road Hierarchy Description

Road Type	Description
Primary Distributors	Provide for major regional and inter-regional traffic movement and carry large volumes of generally fast-moving traffic. Some are strategic freight routes, and all are State Roads. They are managed by Main Roads Western Australia.
District Distributor A	Carry traffic between industrial, commercial and residential areas and generally connect to Primary Distributors. These are likely to be truck routes and provide only limited access to adjoining property. They are managed by local government.
District Distributor B	Perform a similar function to type A District Distributors but with reduced capacity due to flow restrictions from access to and roadside parking alongside adjoining property. These are often older roads with a traffic demand in excess of that originally intended. District Distributor A and B roads run between land-use cells and generally not through them, forming a grid which would ideally space them around 1.5 kilometres apart. They are managed by local government.
Regional Distributor	Roads that are not Primary Distributors but which link significant destinations and are designed for efficient movement of people and goods within and beyond regional areas. They are managed by local government.
Local Distributor	Roads that carry traffic within a cell and link District Distributors or Regional Distributors at the boundary, to access roads. The route of Local Distributors should discourage through traffic so that the cell formed by the grid of District Distributors only carries traffic belonging to or serving the area. These roads should accommodate buses but discourage trucks. Urban Local Distributor roads are managed by local government.
Local Distributor	Connect to other Rural Distributors and to Rural Access Roads. Not Regional Distributors, but which are designed for efficient movement of people and goods within regional areas. Rural Local Distributor roads are managed by local government.
Access Roads	Provide access to abutting properties with amenity, safety and aesthetic aspects having priority over the vehicle movement function. These roads are bicycle and pedestrian friendly. They are managed by local government.

Figure 6 shows the road hierarchy network and **Table 6** provides a summary of the road characteristics of surrounding road network.

Figure 6 – Road Hierarchy

Source: Main Roads Road Information Mapping

Table 5 – Surrounding Network Road Hierarchy

Road Name	Road Hierarchy	Jurisdiction	No. of Lanes	No. of Footpaths	Road Pavement Width (m)	Speed Limit
Brodie-Hall Drive	Access Road	Local Government	2	1	7.5	50km/hr
Sarich Way	Access Road	Local Government	2	1	7.2	50km/hr
Hayman Road	Distributor A	Local Government	4	1	14	60km/h

8.2 Daily/Peak Traffic Volumes

No traffic volumes were available along Bordie-Hall Drive, however the traffic volumes were obtained from the Main Roads WA Traffic map for roads within the vicinity of the Site and are shown below in **Table 7**.

Table 6 Existing Traffic Volumes

Location	Year	Weekday Traffic Volumes (two-way)		
		Daily	AM Peak Hour	PM Peak Hour
Hayman Road (East of Kent Street)	2023	8,542	734	783
Kent Street (South of Jarrah Road)	2023	9,755	731	861

8.3 Future Road Network

No changes to the future road network within close proximity to the Site are proposed in the short term.

9 PUBLIC TRANSPORT ACCESS

9.1 Existing Public Transport Services

Bus services 33, 34, 101 and 284 run along Jarrah Road and Hayman Road and travel to the Perth Bus Port, Curtin Central Bus Station, Elizabeth Quay Bus Station and Belmont Forum.

9.2 Nearest Bus Stops

the nearest bus stops to the Site currently are located approximately 200m away along Jarrah Road as shown in **Figure 7**. These stops are conveniently located close to the Site and will allow staff to commute to work without the need to drive their private vehicle.

Figure 7 – Existing Bus Routes and Stops

Source: Transperth (2024)

9.3 Future Public Transport Facilities

PTG contacted the Public Transport Authority (PTA) and were not advised of any changes to the public transport services of facilities within the short term.

10 PEDESTRIAN AND CYCLE ACCESS FACILITIES

10.1 Existing Pedestrian/Cycle Network

A footpath is provided along Brodie-Hall Drive.

Sealed shoulders stretch along Hayman Road, Kent Street and Jarrah Road, as shown in **Figure 8.** Whilst "Local Bike Friendly Routes" run along Nottingham Street and Northampton Street.

The Site is surrounded by good pedestrian and cycle network facilities.

Figure 8 – Existing Pedestrian/Cycle Networks

Source: Department of Transport (2016)

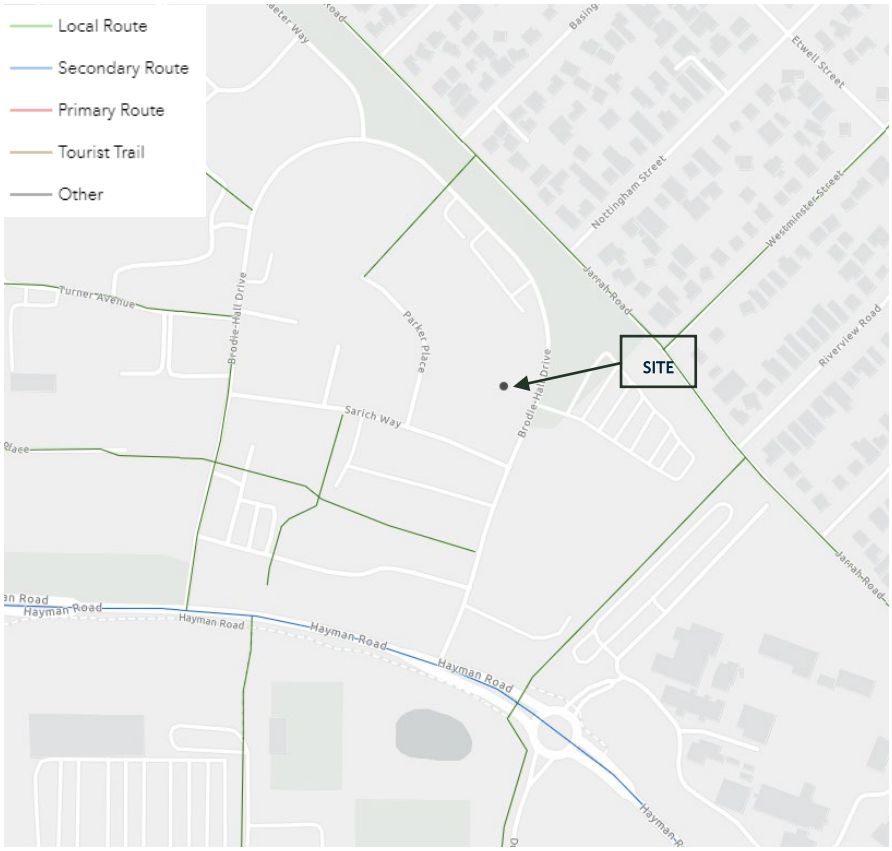
Figure 9 identifies a RidewithGPS sourced heat map of the primary cycle routes within the Sites locality. As can be seen, the section of Brodie Hall Drive adjacent to the site, is shown to be on a popular cycle route and likely to be used by staff and parents alike.

Figure 9 Cycling Heat Map

10.2 Future Pedestrian/Cycle Network Facilities

Figure 10 presents the ultimate pedestrian and cycle paths as observed in the Long-Term Cycle Network (LCTN) Map. LTCN classified Jarrah Road, Whatts-Place and a portion of Brodie Hall Drive as Local Routes, while Hayman Road is classified as a Secondary Route.

Figure 10 - Long-Term Cycle Network Map



11 SITE SPECIFIC ISSUES

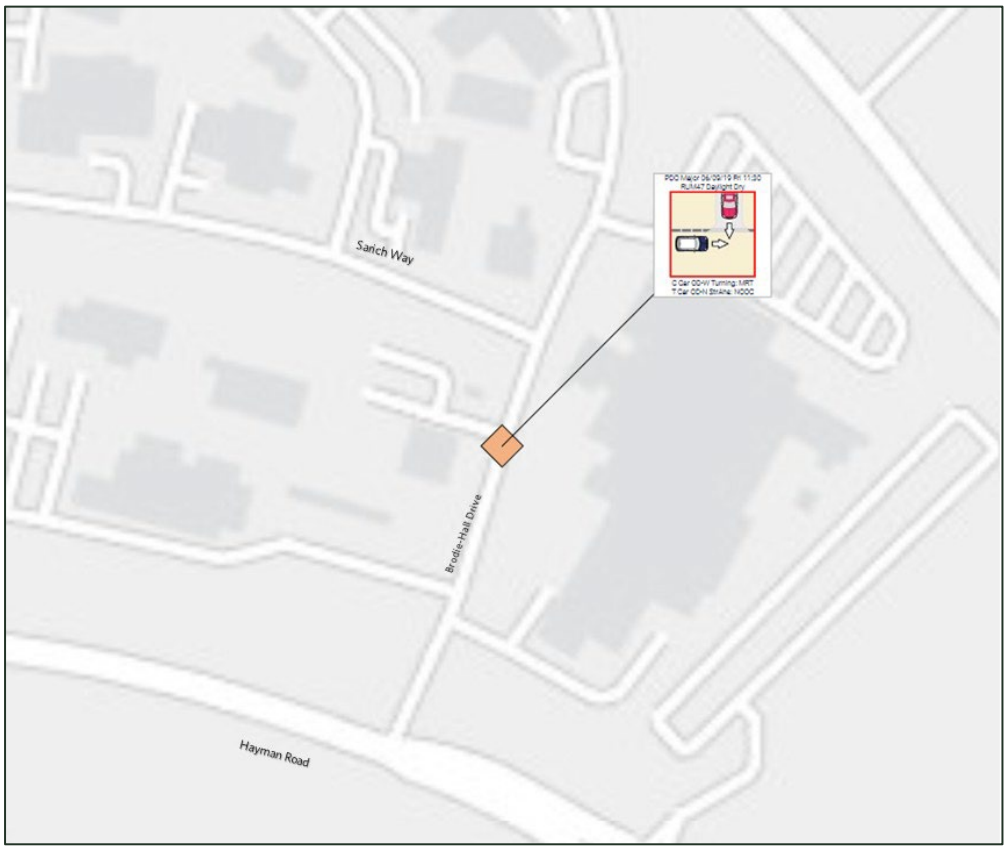
N/A

12 SAFETY ISSUES

A review of the existing crash data from *Main Roads WA Traffic Map* for the period between 1 January 2019 to 31 December 2023 was conducted for Brodie-Hall Drive. As shown, there is only 1 recorded crash at the along Brodie-Hall Drive.

The crash location is illustrated in **Figure 10** and the crash details summarised in **Table 8**.

Figure 10 11 – Crash Location



Source: Main Roads WA Traffic Map

Table 7 – Baldivis Road/ Daintree Street Intersection

Crash Nature	Fatal	Hospital	Medical	PDO Major	PDO Minor	Total Crashes
Right Angle	-	-	-	1	-	1
	0	0	0	1	0	1

Overall, the number of crashes that occurred within the surrounding area appears to be low for the last five years.

13 SUMMARY AND CONCLUSIONS

This report has been prepared in accordance with the Western Australian Planning Commission (WAPC) Transport Assessment Guidelines for Developments: Volume 4 – Individual Developments (2016); the checklist is included at **Appendix A**.

The following conclusions can be drawn from this TIS:

- The proposed development at the site is for a Child Care Centre comprising of 51 children and up to 9 staff members;
- 9 car parking bays are proposed on-site;
- The estimated peak hour trip generation is 40 trips in the AM Peak Hour, 41 trips in the PM Peak Hour and 208 Daily trips. Based on the numbers above, this low volume of trip generation is anticipated to have only a low to moderate impact on the surrounding road network.
- The site is well accessible by public transport service, with a bus stop 200m away from the site and is serviced by different 4 bus routes.
- The site benefits from the surrounding existing pedestrian and cycling networks.
- Due to the nature of the development, it is envisaged that it would have a negligible impact on road safety in the area.

Appendix A

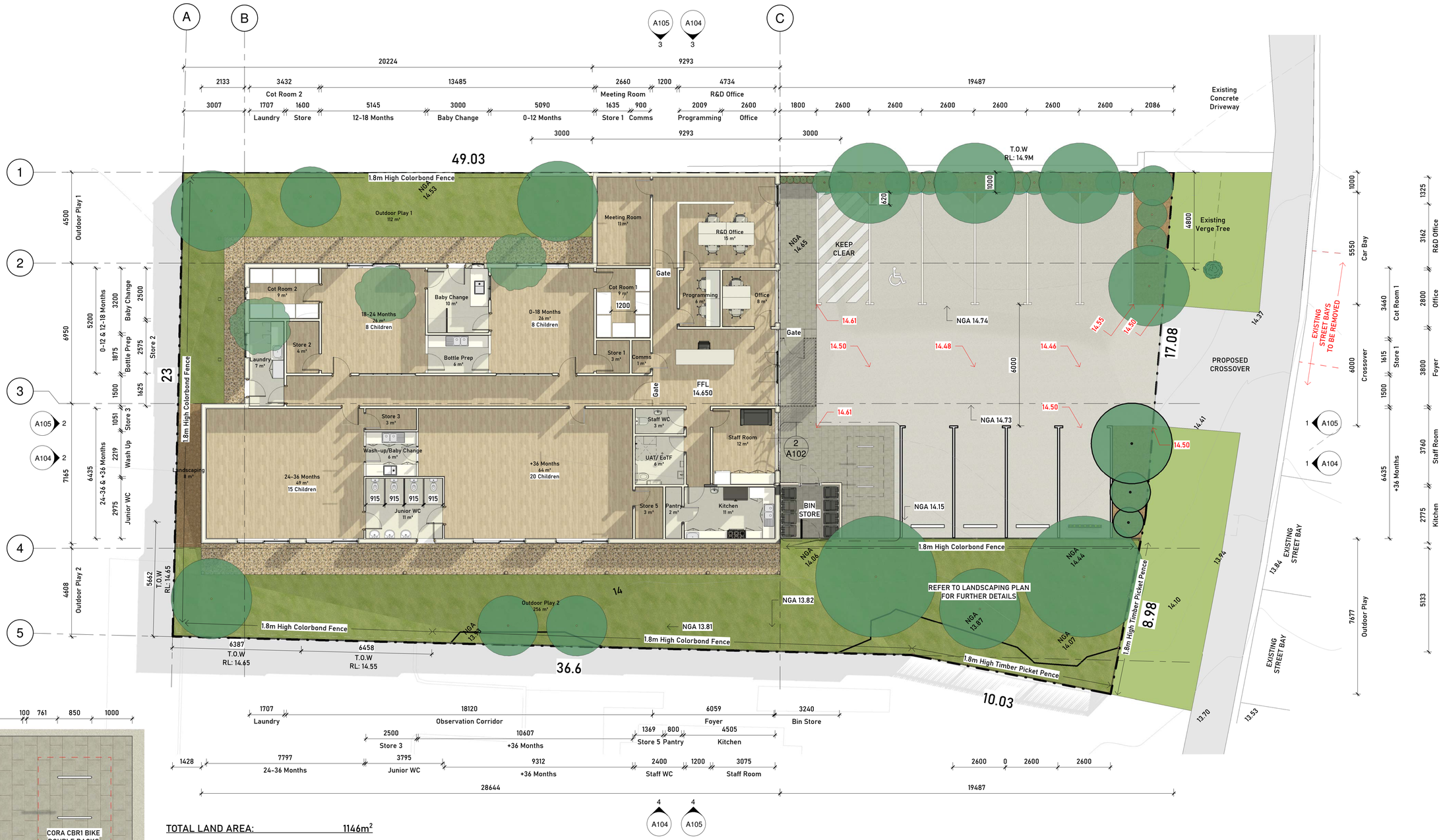
WAPC CHECKLIST FOR INDIVIDUAL DEVELOPMENT - TRANSPORT IMPACT STATEMENT

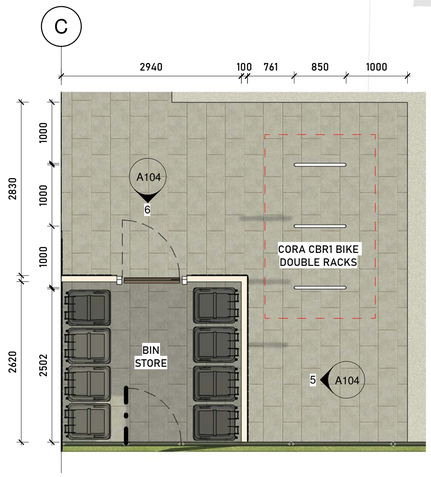
APPENDIX A – WAPC CHECKLIST

Item	Status	Comments/Proposal
Proposed Development	**Section 2**	
site location	Section 2.1	
existing land uses	Section 2.2	
proposed land uses	Section 2.3	
context with surrounds	Section 2.4	
Vehicular access and parking	**Section 3**	
access arrangements	Section 3.1	
parking provisions	Section 3.2	
Service vehicles (non-residential)	**Section 4**	
access arrangements	Section 4.1	
on/off-site loading facilities	Section 4.2	
Hours of Operation	**Section 5**	
Traffic volumes and vehicle types	**Section 6**	
daily or peak traffic volumes	Section 6.1	
type of vehicles (eg cars, trucks)	Section 6.2	
Traffic management on frontage streets	**Section 7**	
existing road networks and traffic management	Section 7.1	
existing intersection	Section 7.2	
Public transport access	**Section 8**	
existing public transport services	Section 8.1	
nearest bus stops/train stations	Section 8.2	
pedestrian/cycle links to bus stops/ train station	Section 8.3	
Pedestrian and Cycle access/facilities	**Section 9**	
existing pedestrian and cycle networks	Section 9.1	
proposed pedestrian and cycle facilities within the development	Section 9.2	
proposals to improve pedestrian/ cycle access	Section 9.3	
Site specific issues	**Section 10**	
Summary	**Section 11**	

Appendix B

SITE PLANS





2 Bin Store Plan
1 : 50

TOTAL LAND AREA: 1146m²

PROPOSED BUILDING AREA: 430m²

PROPOSED LANDSCAPED AREA: 46m²

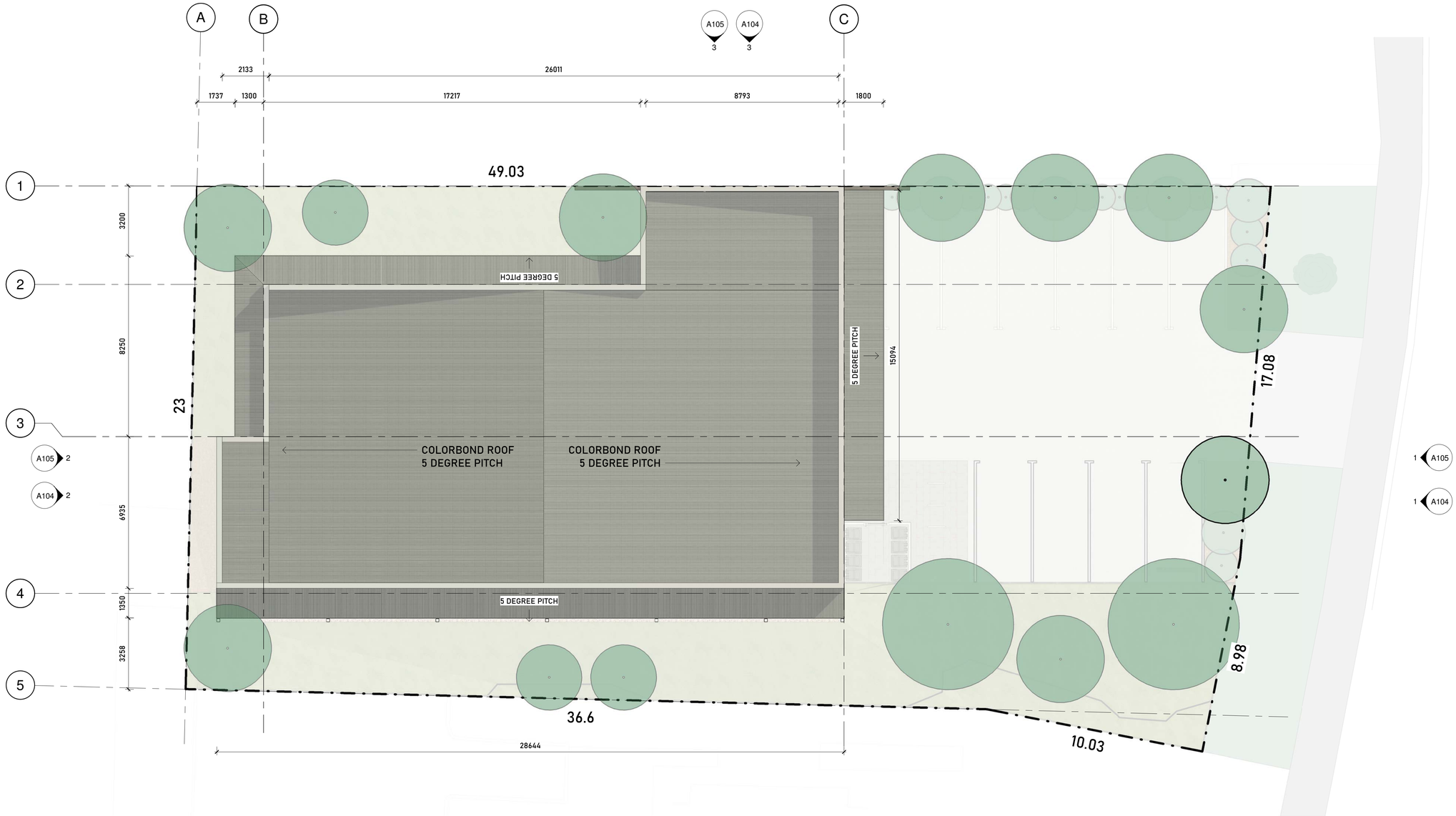
TOTAL OUTDOOR PLAY AREA: 368m² OPEN SPACE RATIO: 36.12%

1 Ground Floor
1 : 100 @ A1

A102

DRAWING TYPE	DATE OF ISSUE	SCALE	REVISION	NORTH POINT	PROJECT LOCATION
Ground Floor Plan	28/04/2025	As indicated	C		22 Brodie- Hall Drive, Bentley WA 6102

BLOOM ARCHITECTURE

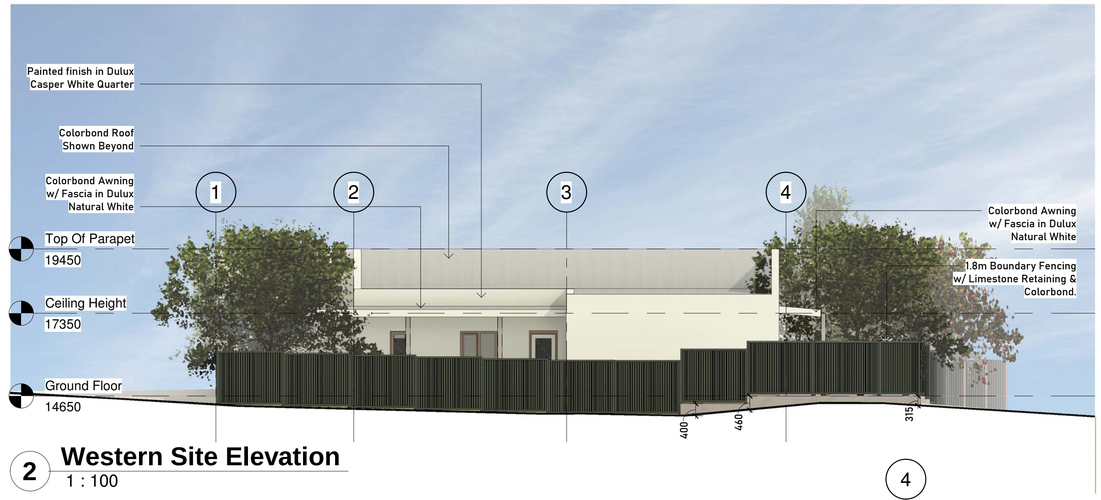


1 **Roof Plan**
1 : 100

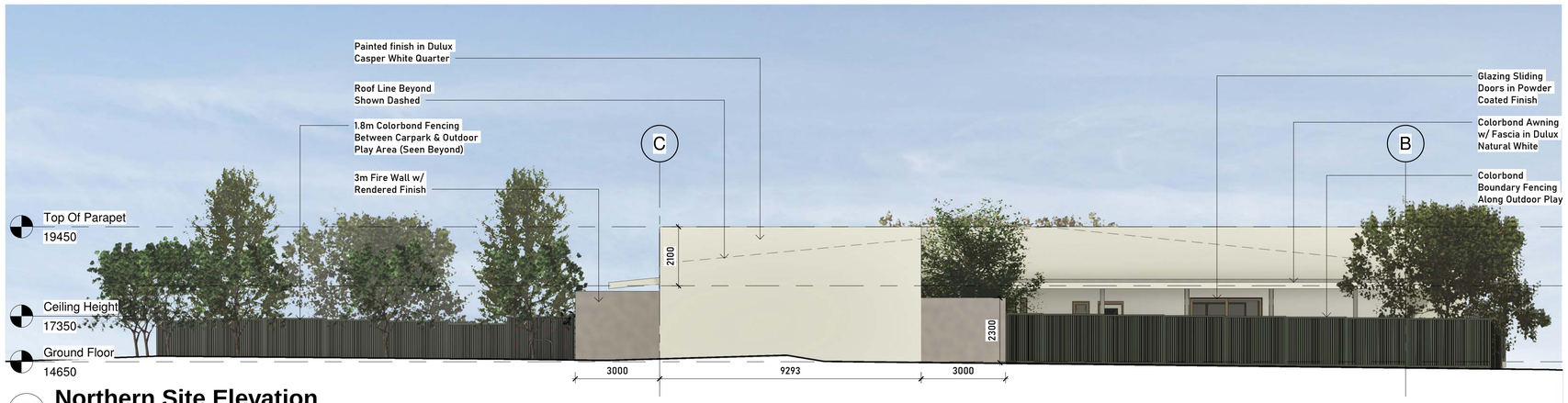
A103	DRAWING TYPE	DATE OF ISSUE	SCALE	REVISION	NORTH POINT	PROJECT LOCATION
	Roof Plan	09/04/2025	1 : 100	B		22 Brodie- Hall Drive, Bentley WA 6102

BLOOM ARCHITECTURE

1 Brodie-Hall Drive Site Elevation
1 : 100



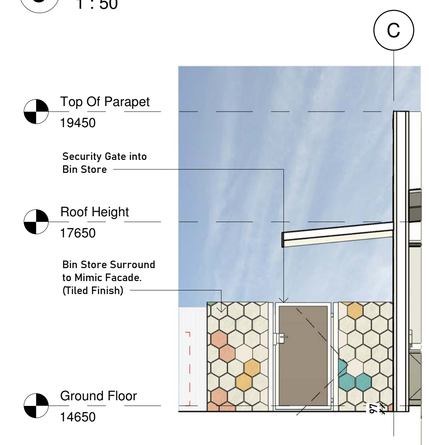
2 Western Site Elevation
1 : 100



3 Northern Site Elevation
1 : 100

4 Southern Site Elevation
1 : 100

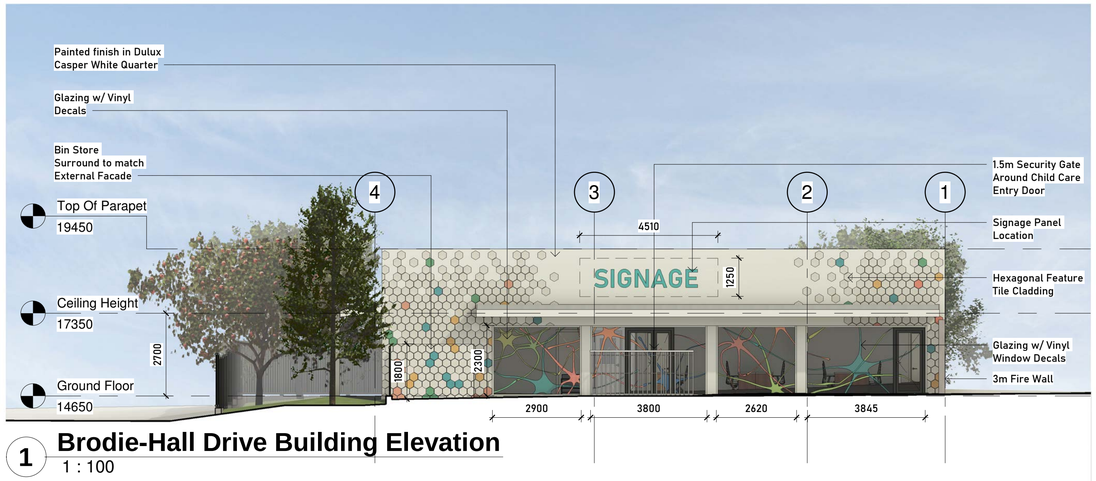
5 Bin Store Elevation (Brodie-Hall Drive)
1 : 50



6 Bin Store Elevation (Car Park)
1 : 50

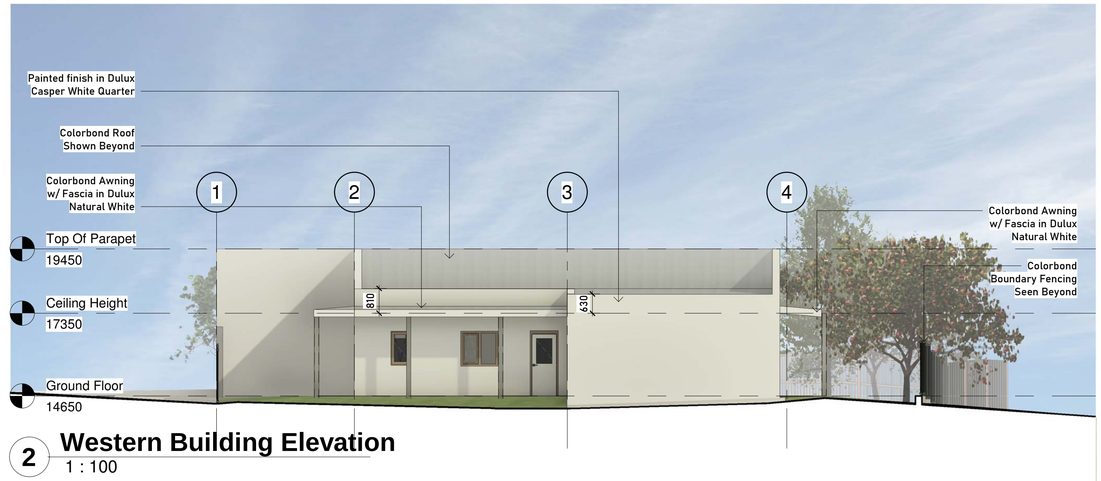
A104	DRAWING TYPE	DATE OF ISSUE	SCALE	REVISION	NORTH POINT	PROJECT LOCATION
	Site Elevations	09/04/2025	As indicated	C		22 Brodie- Hall Drive, Bentley WA 6102

BLOOM ARCHITECTURE



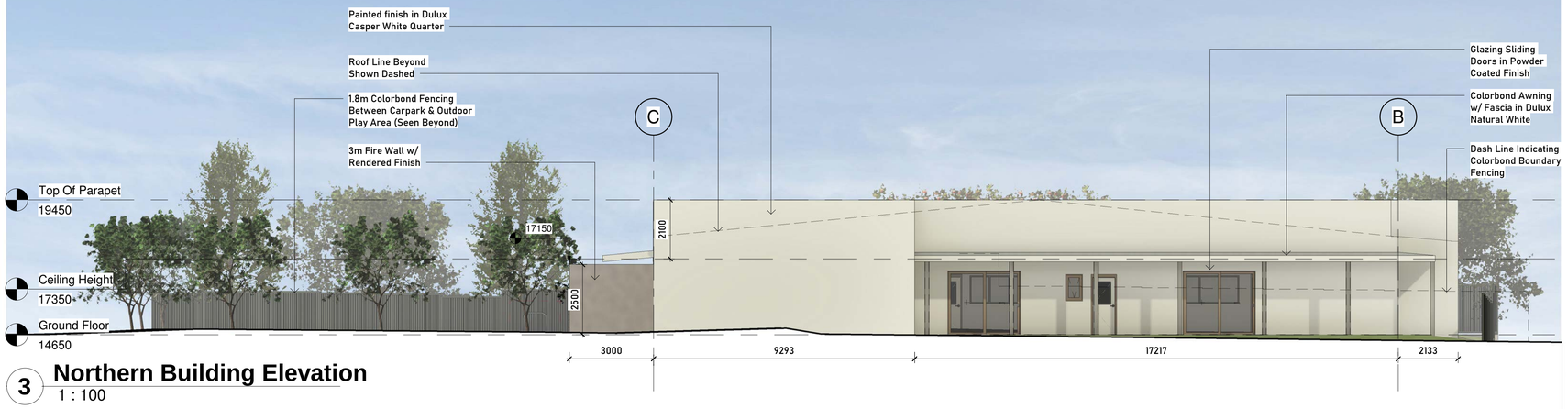
1 Brodie-Hall Drive Building Elevation

1 : 100



2 Western Building Elevation

1 : 100



3 Northern Building Elevation

1 : 100

4 Southern Building Elevation

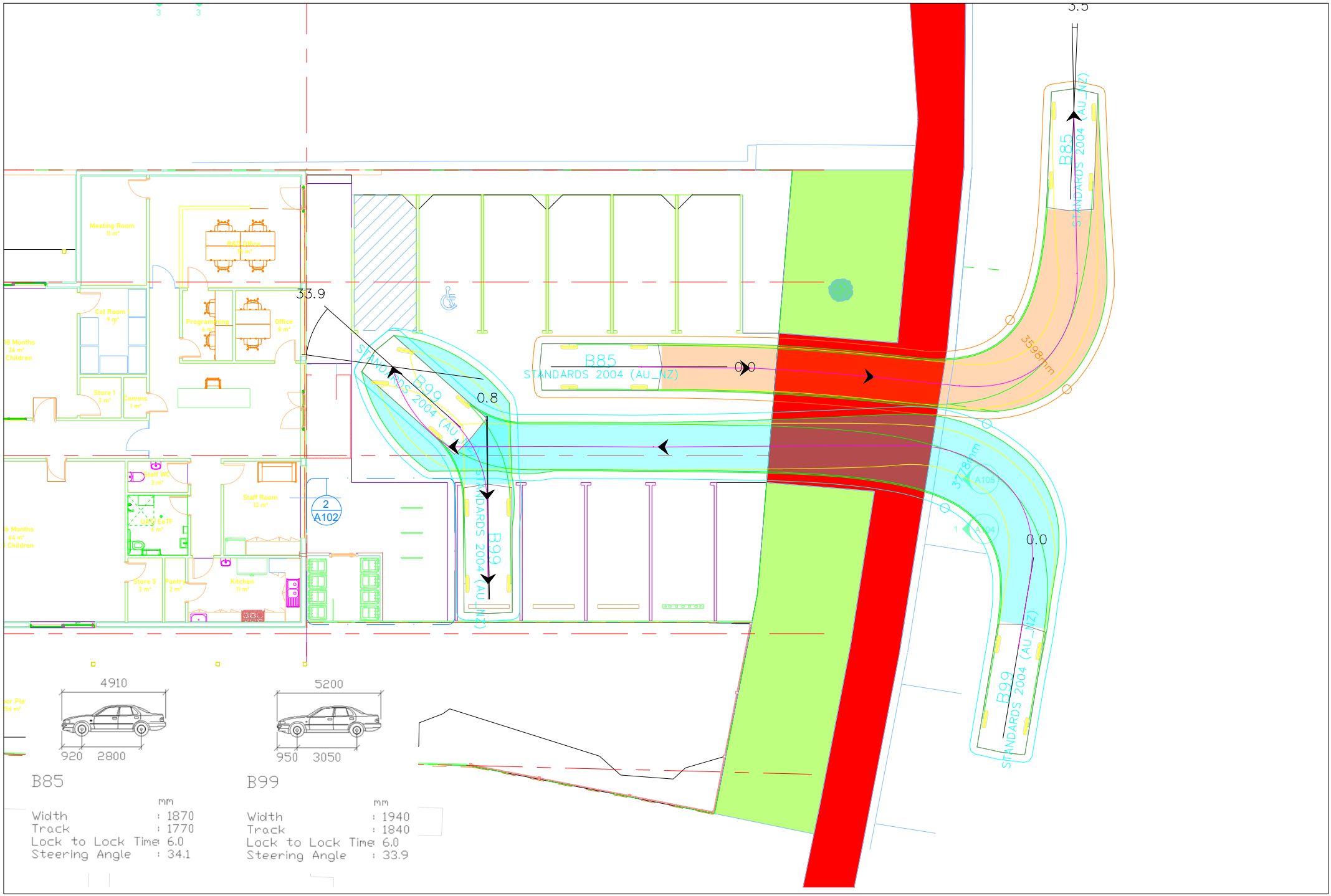
1 : 100

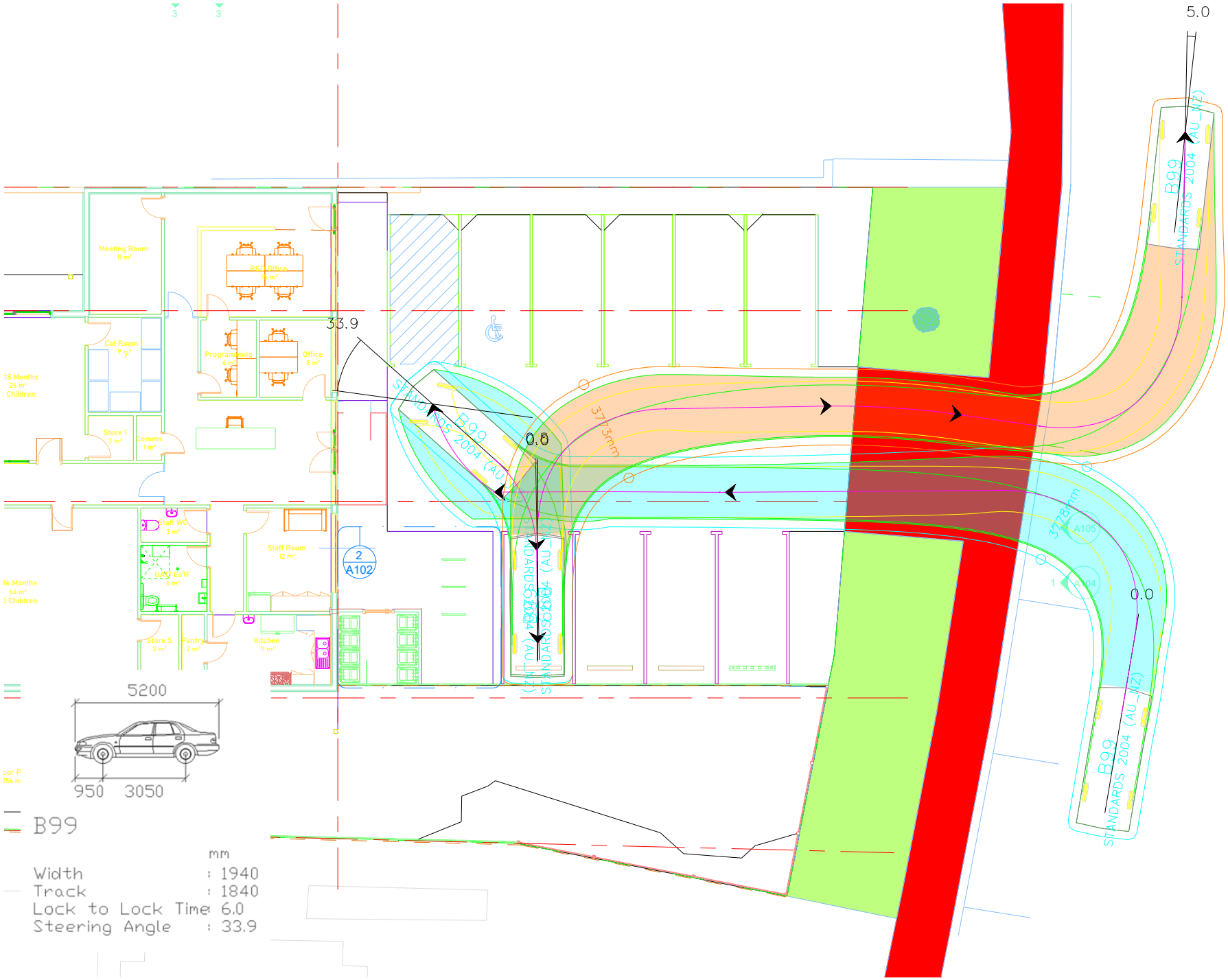
A105	DRAWING TYPE	DATE OF ISSUE	SCALE	REVISION	NORTH POINT	PROJECT LOCATION
	Building Elevations	09/04/2025	1 : 100	C		22 Brodie- Hall Drive, Bentley WA 6102

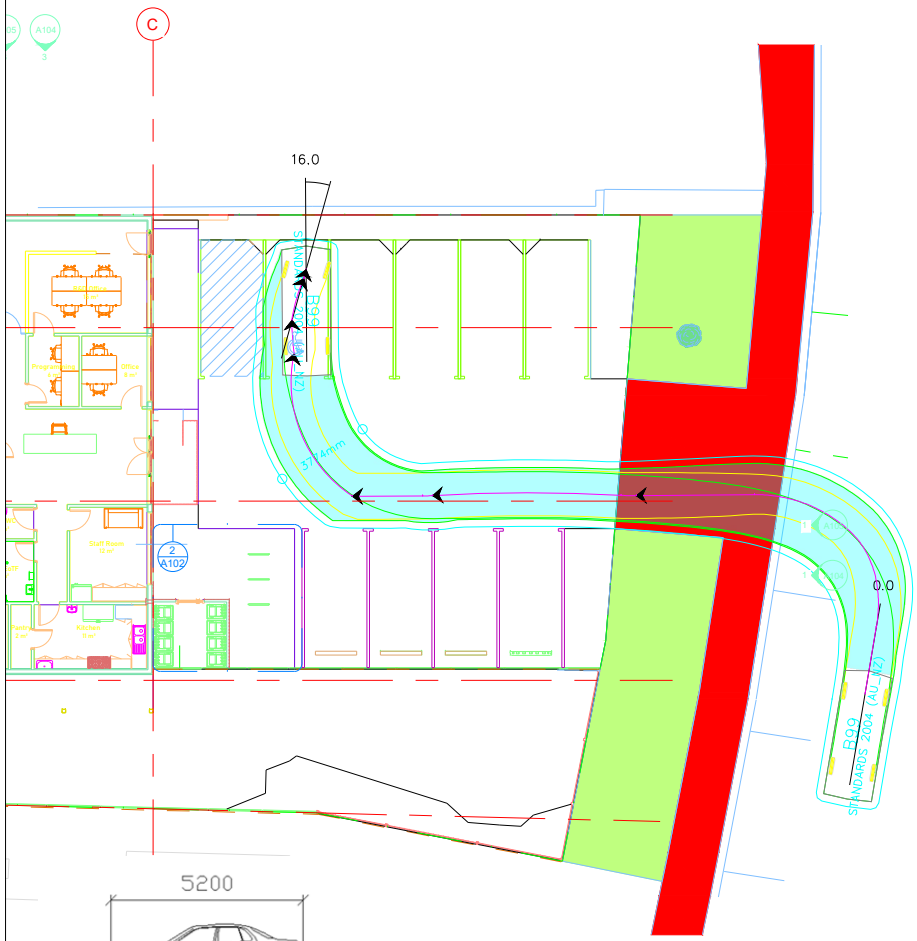
BLOOM ARCHITECTURE

Appendix C

SWEPT PATHS

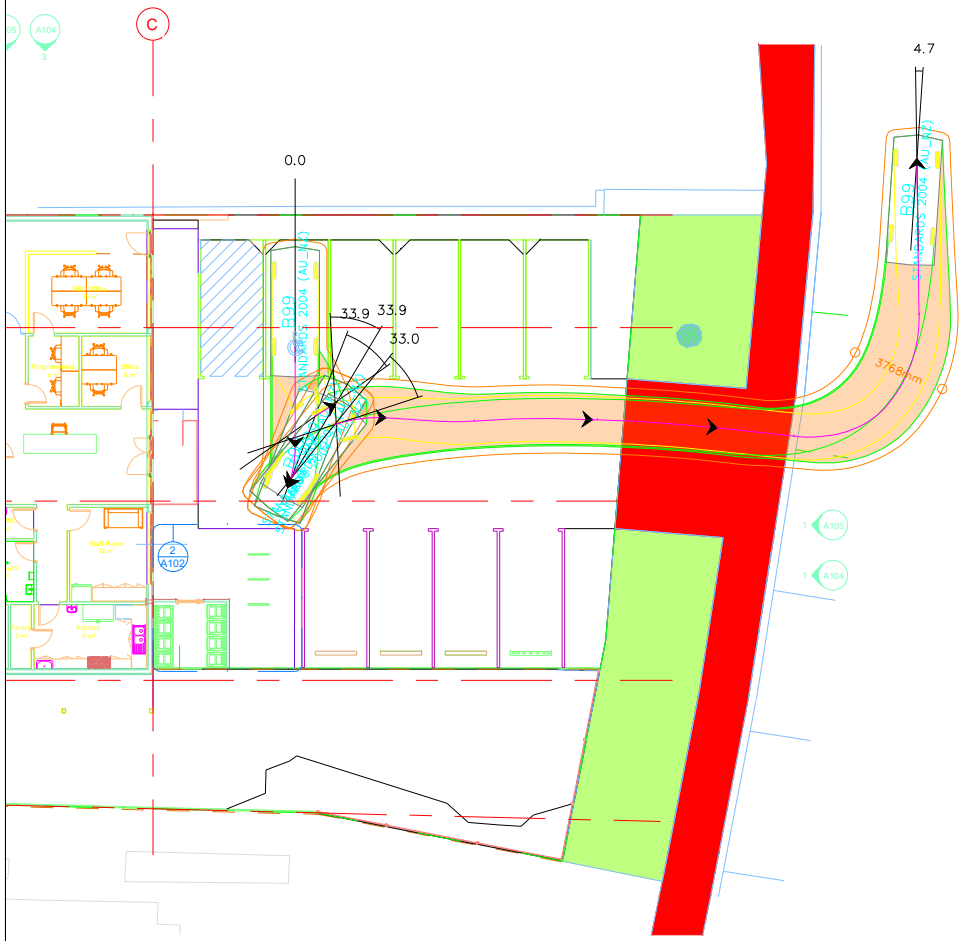

Meeting Room
11 m²
Cot Room
9 m²
Programming
6 m²
Office
8 m²
Store 1
3 m²
Comms
1 m²
Staff WC
3 m²
Staff Room
12 m²
Store 5
3 m²
Pantry
2 m²
Kitchen
11 m²
2
A102
33.9
0.8
0.0
B85
STANDARDS 2004 (AU_NZ)
B99
STANDARDS 2004 (AU_NZ)
3598mm
3728mm
A105
A104
3.5
4910
920
2800
5200
950
3050
B85
mm
Width : 1870
Track : 1770
Lock to Lock Time 6.0
Steering Angle : 34.1
B99
mm
Width : 1940
Track : 1840
Lock to Lock Time 6.0
Steering Angle : 33.9


5.0
33.9
0.6
0.0
Meeting Room
11 m²
Cot Room
9 m²
Programming
6 m²
Office
8 m²
Store 1
3 m²
Comms
1 m²
Staff WC
3 m²
Staff Room
12 m²
Store 5
3 m²
Pantry
2 m²
Kitchen
11 m²
2
A102
A105
A104
B99
STANDARDS 2004 (AU_NZ)
5200
950
3050
B99
mm
Width : 1940
Track : 1840
Lock to Lock Time 6.0
Steering Angle : 33.9



B99

	mm
Width	: 1940
Track	: 1840
Lock to Lock Time	: 6.0
Steering Angle	: 33.9



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