

# PROPOSED PRIMARY SCHOOL

341-369 YORK STREET, SALE

## TRAFFIC IMPACT ASSESSMENT REPORT

### ADVERTISED PLAN

This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright

## PROPOSED PRIMARY SCHOOL 341-369 YORK STREET, SALE

Client: Y2 Architecture

Report Reference: 22146TREP01D02

File Path: Y:\2022\22146T - Sisters of Sion, Sale\08 Reports\22146TREP01D02.docx

Friday, August 04, 2023

### Document Control

Version:	Prepared By:	Position:	Date:	Reviewed By:	Position:	Date:
D01	Zachary Seymour	Undergraduate Engineer	23/03/2023	Jarrod Wicks	Director	02/05/2023
F01	Jarrod Wicks	Director	24/05/2023	Jarrod Wicks	Director	24/05/2023
F02	Jarrod Wicks	Director	31/07/2023			

© Sustainable Transport Surveys Pty Ltd All Rights Reserved. Copyright in the whole and every part of this document belongs to Sustainable Transport Surveys Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or in or on any media to any person without the prior written consent of Sustainable Transport Surveys Pty Ltd.

This document is produced by Sustainable Transport Surveys for the benefits and use by the client in accordance with the terms of engagement. Sustainable Transport Surveys does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by any third party on the content of this document

#### MELBOURNE

Level 3, 51 Queen St Melbourne VIC 3000

T: +61 3 9020 4225

#### SYDNEY

Suite 303/61 Marlborough St Surry Hills NSW 2010

T: +61 2 9068 7995

#### HOBART

Level 4, 116 Bathurst St Hobart TAS 7000

T: +61 400 535 634

#### CANBERRA

Level 3, 33-35 Ainslie PI Canberra ACT 2601

T: +61 2 9068 7995

#### ADELAIDE

Level 21, 25 Grenfell St Adelaide SA 5000

T: +61 8 8484 2331

[www.salt3.com.au](http://www.salt3.com.au)



# CONTENTS

<b>1</b>	<b>INTRODUCTION</b>	<b>2</b>
<b>2</b>	<b>EXISTING CONDITIONS</b>	<b>2</b>
21	LOCATION AND LAND USE	2
22	ROAD NETWORK	3
2.21	RAYMOND STREET	3
2.22	CODRINGTON STREET	4
2.23	RAGLAN STREET	4
2.24	YORK STREET	5
23	SUSTAINABLE TRANSPORT	6
24	CAR PARKING AVAILABILITY	6
25	TRAFFIC VOLUMES	8
<b>3</b>	<b>PROPOSAL</b>	<b>8</b>
31	DOSCEL OFFICES	9
<b>4</b>	<b>CAR PARKING</b>	<b>9</b>
41	STATUTORY REQUIREMENTS	9
	STUDENT	9
42	DROP-OFF & PICK-UP PARKING	9
43	DOSCEL PARKING	11
44	ACCESSIBLE CAR PARKING	11
<b>5</b>	<b>DESIGN MATTERS</b>	<b>12</b>
51	CAR PARKING ACCESS & LAYOUT	12
52	PEDESTRIAN ACCESS	15
<b>6</b>	<b>BICYCLE PARKING</b>	<b>15</b>
6.1	STATUTORY REQUIREMENTS	15
6.2	BICYCLE FACILITY DESIGN	15
<b>7</b>	<b>LOADING AND WASTE COLLECTION</b>	<b>16</b>
<b>8</b>	<b>TRAFFIC IMPACTS</b>	<b>17</b>
8.1	TRAFFIC GENERATION	17
8.2	TRAFFIC DISTRIBUTION	17
8.3	TRAFFIC IMPACT	17
<b>9</b>	<b>CONCLUSIONS</b>	<b>18</b>
	VEHICLE SWEEP PATH DIAGRAMS	19

## LIST OF FIGURES

Figure 1	Aerial view of the subject site (source: Nearmap).....	2
Figure 2	Subject site location (source: Melway Online).....	3
Figure 3	Raymond Street facing north.....	4
Figure 4	Raymond Street facing south.....	4
Figure 5	Codrington Street facing east.....	4
Figure 6	Codrington Street facing west.....	4
Figure 7	Raglan Street facing east.....	5
Figure 8	Raglan Street facing west.....	5
Figure 9	York Street facing north.....	5
Figure 10	York Street facing south.....	5
Figure 11	Sale Public Transport Network (source: www.ptv.vic.gov.au).....	6
Figure 12	Parking Survey Areas.....	7
Figure 13	Parking survey results – Thursday 19 May 2022.....	7
Figure 14	Pick Up/Drop Off Expected Arrangements.....	10
Figure 15	Metropolitan Primary School Interview Survey Average Mode Split.....	11
Figure 16	Regional Primary School Interview Average Mode Split.....	11
Figure 17	Cora Expo 7510-J junior bicycle rack.....	16
Figure 18	Cora SRS10 scooter rack.....	16

## LIST OF TABLES

Table 1	Existing Traffic Volumes on Raymond Street (August 2016).....	8
Table 2	School staff and student numbers.....	8
Table 3	DOSCEL staff and visitor numbers.....	9
Table 4	Statutory Car Parking Requirement.....	9
Table 5	Design Standards for Car Parking (Clause 52.06-9).....	12
Table 6	Statutory Bicycle Parking Requirements.....	15



# 1 INTRODUCTION

SALT has been engaged by Y2 Architecture to provide design advice and undertake an assessment of the traffic and parking impacts associated with a proposed primary school development at 341-369 York Street, Sale.

In the course of preparing this report, the following tasks have been undertaken:

- The subject site has been inspected;
- Car parking utilisation data has been collected for surrounding streets;
- Design plans prepared by Y2 Architecture have been reviewed;
- Design advice has been provided to the project architects; and
- The parking and traffic implication of the proposal have been assessed.

The following sets out SALT's findings.

## 2 EXISTING CONDITIONS

### 2.1 LOCATION AND LAND USE

The subject site is an irregularly shaped parcel of land located on the western side of York Street in Sale. It was historically a Catholic College for high school students, with school records indicating a long-term enrolment of 390 students with 55 staff members as of 2013. The site has been unoccupied since 2020.

The surrounding land uses are primarily residential in nature.

An aerial view of the site is provided in **Figure 1**. A map of the surrounding streets is provided in **Figure 2**.



Figure 1 Aerial view of the subject site (source: Nearmap)

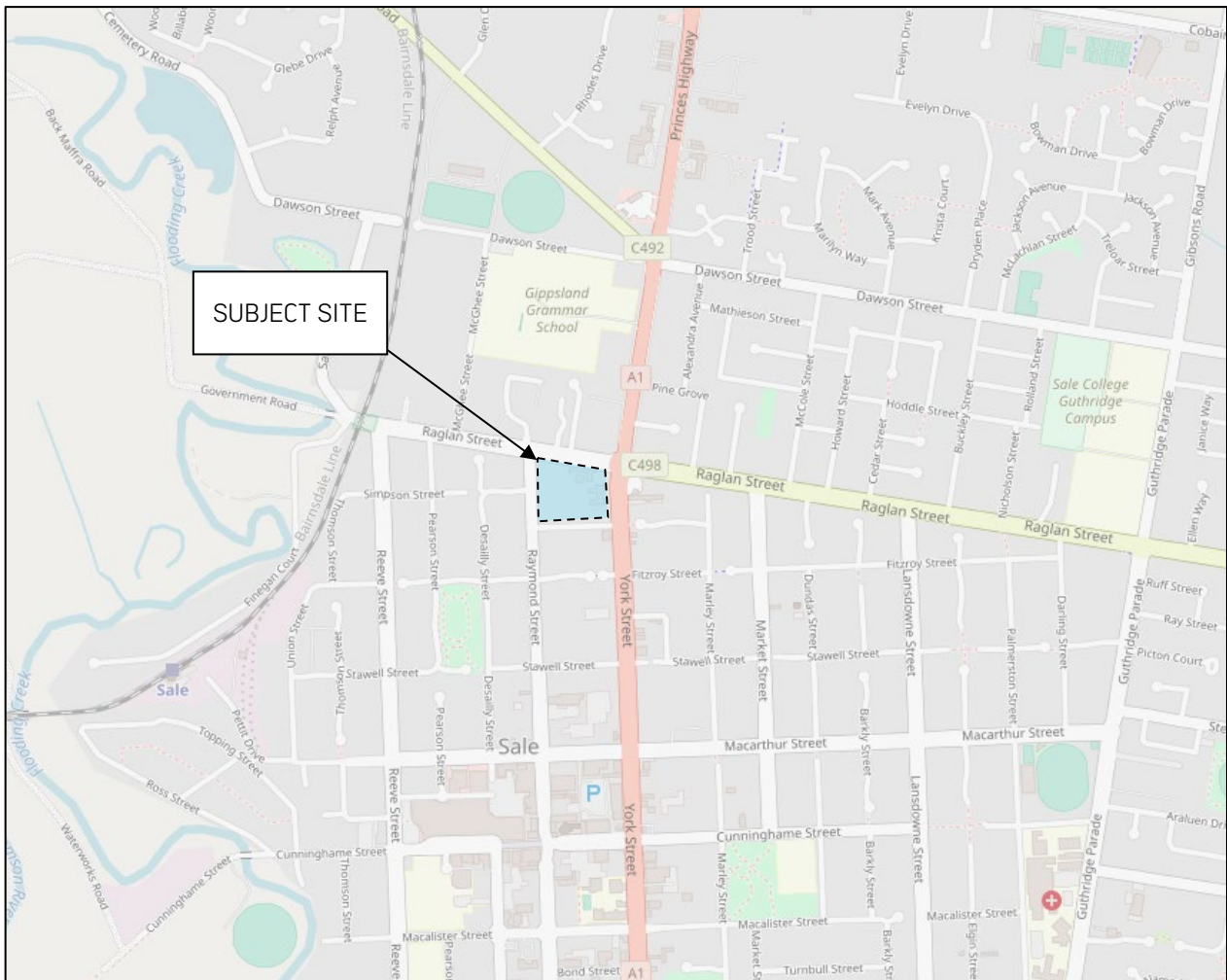


Figure 2 Subject site location (source: Melway Online)

## 2.2 ROAD NETWORK

### 2.2.1 RAYMOND STREET

Raymond Street borders the western edge of the site and is a Transport Zone – Category 3 and connector street under the care and management of Wellington Shire Council.

It has an undivided carriageway with a width of approximately 11.2m, providing one lane of traffic in each direction plus parallel parking on both sides. A right-turn lane is provided at the intersection with Raglan Street.

In the vicinity of the site a posted speed limit of 40km/h applies.

Views of Raymond Street are provided in **Figure 3** and **Figure 4**.





Figure 3 Raymond Street facing north



Figure 4 Raymond Street facing south

## 2.2.2 CODRINGTON STREET

Codrington Street borders the southern edge of the site and is an undivided carriageway providing one lane of traffic in each direction. It is under the care and management of Wellington Shire Council. It has a width of approximately 8.8m. It is classified as a Local Access A – Road in the Wellington Road Register.

Parallel parking is available on both sides of the carriageway. A section of 90-degree parking is located at the eastern end near York Street.

A posted speed limit of 40km/h applies.

Views of Codrington Street are provided in **Figure 5** and **Figure 6**.



Figure 5 Codrington Street facing east



Figure 6 Codrington Street facing west

## 2.2.3 RAGLAN STREET

Raglan Street borders the northern edge of the site and is a Transport Zone – Category 3 and Link Road under the care and management of the Department of Transport and Planning.

It has a divided carriageway providing two lanes of traffic in each direction separated by a central median strip.

On-street parking is available on either side of Raglan Street, however, a bus zone occupies a significant portion of the available space along the southern edge of Raglan Street precluding the use as public parking between 8:00am and 4:00pm Monday to Fridays.

In the vicinity of the site a sign posted speed limit of 70km/h applies. A variable speed limit sign is in operation during school hours that reduces the speed limit to 40km/h.

Views of Raglan Street are provided in **Figure 7** and **Figure 8**.



Figure 7 Raglan Street facing east



Figure 8 Raglan Street facing west

## 2.2.4 YORK STREET

York Street borders the eastern edge of the site and is a Transport Zone – Category 2 and Local Access A Road under the care and management of the Department of Transport and Planning.

It has a divided carriageway providing two lanes of traffic in each direction separated by a central median strip. A right-turn lane is provided at the intersection with Codrington Street.

Unrestricted parking is available at the frontage of the site along York Street.

In the vicinity of the site a sign posted speed limit of 70km/h applies. A variable speed limit sign is in operation during school hours that reduces the speed limit to 40km/h.

Views of York Street are provided in **Figure 9** and **Figure 10**.



Figure 9 York Street facing north



Figure 10 York Street facing south



## 2.3 SUSTAINABLE TRANSPORT

The site has good access to sustainable transport modes, with bus routes 2, 5 and 6 operating along the sites borders (Figure 11). The nearest bus stop borders the site along Raglan Street approximately 200m from the sites existing main entrance. Furthermore, footpaths are provided along Raglan and York Street including a shared path along Raymond Street.

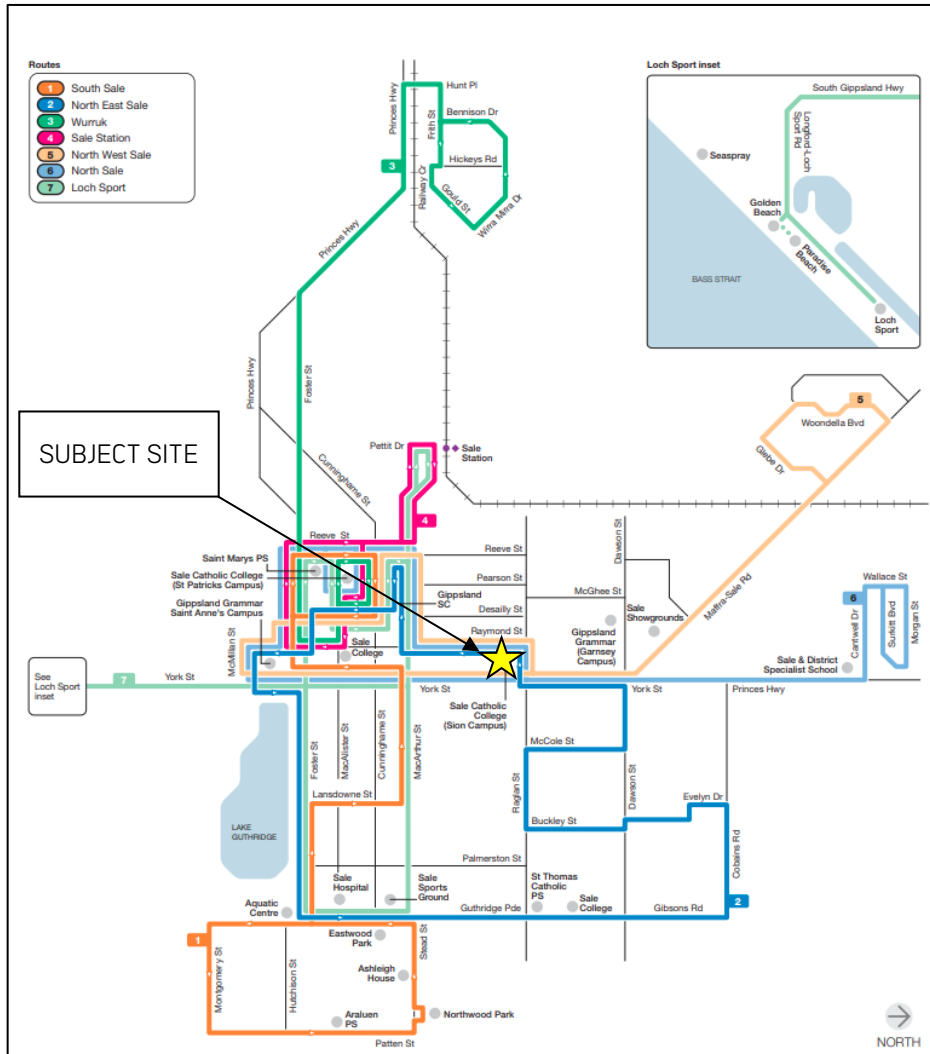


Figure 11 Sale Public Transport Network (source: [www.ptv.vic.gov.au](http://www.ptv.vic.gov.au))

## 2.4 CAR PARKING AVAILABILITY

In order to ascertain the existing parking demands adjacent to the subject site, a parking occupancy survey was commissioned on a typical weekday, Thursday 19 May 2022 between 7:30am and 5:30pm. Note this was after the school that historically occupied the site had ceased operation. The areas surveyed are depicted in Figure 12.



Figure 12 Parking Survey Areas

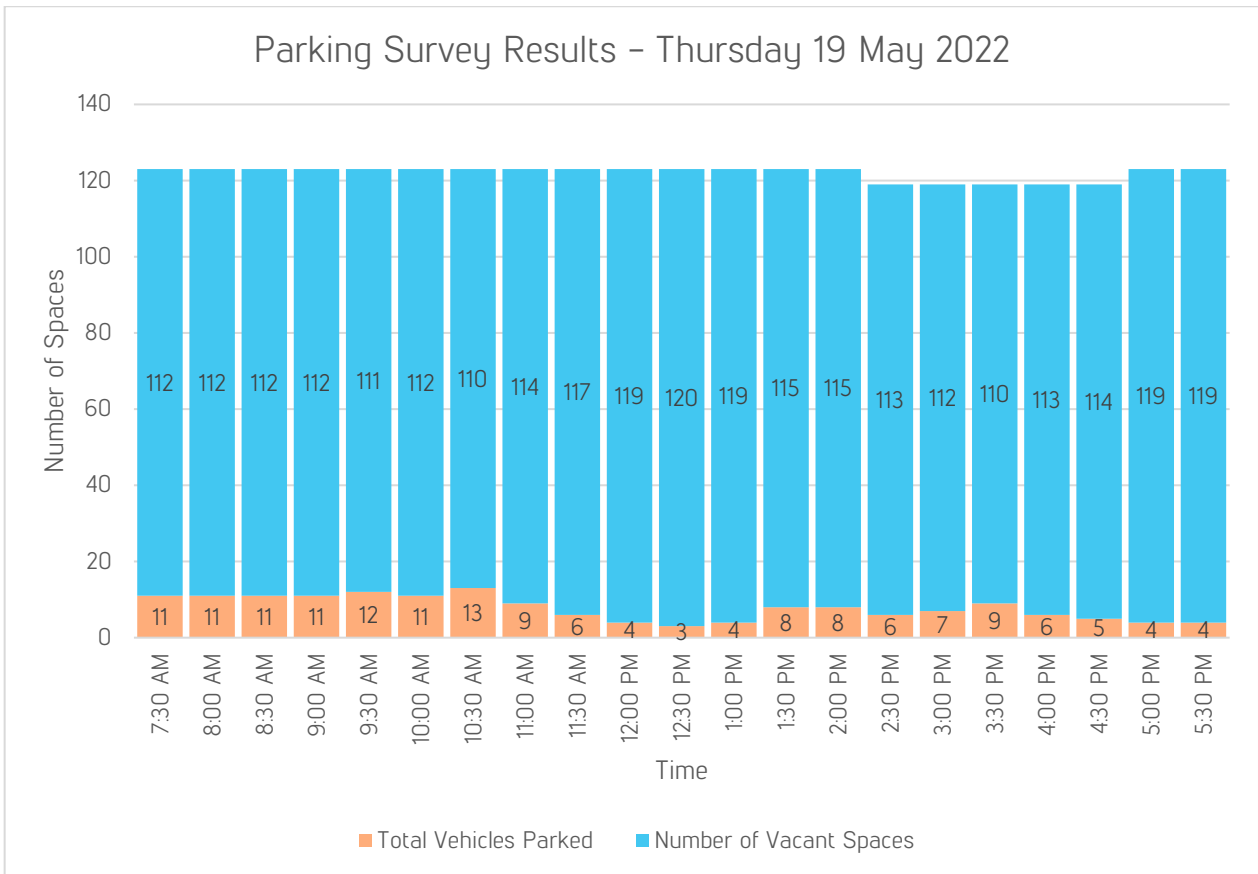


Figure 13 Parking survey results – Thursday 19 May 2022

The results of the parking survey in **Figure 13** show that the surrounding road network has significant capacity for the entire day, including during school pick-up and drop-off peak periods. The maximum parking demand occurred at 10:30am when a total of 13 of the 123 parking spaces were occupied, representing an occupancy of approximately 11%. This left 110 spaces available.

Note the analysed survey results do not include the bus zone located on the southern edge of Raglan Street nor do they include the bus zone parking on the northern side of Codrington Street between 2:30pm-4:30pm. The Codrington Street bus zone is redundant and could be removed, which would increase the availability of on-street car parking by four (4) spaces.

## 2.5 TRAFFIC VOLUMES

Traffic volume data for Raymond Street has been sourced from Wellington Shire Council – refer **Table 1**. This data was collected in August 2016, when the former high school was in operation.

**Table 1 Existing Traffic Volumes on Raymond Street (August 2016)**

Street	Average Weekday Volume	Average Peak Hour Volumes	
		AM (8:00am-9:00am)	PM (4:00pm-5:00pm)
Raymond Street (just north of Simpson Street)	3,351 vpd	282 veh/h	342 veh/h

No data was available for Codrington Street.

## 3 PROPOSAL

It is proposed to utilise the site as a primary school

Stage 1 involves various demolition, refurbishment and building works including the construction of a New Learning Neighbourhood 1 building. Two car parks will be constructed:

- Northern car park: 27 spaces with access via one crossover to Raglan Street
- Southern car park: 46 spaces with access via two crossovers to Codrington Street

The northern car park will be used for staff and visitor parking, and the southern car park for staff parking. No drop off or pick up activity is proposed to occur on-site, but parents will be able to utilise the car parks for afterhours events. Drop off and pick up parking will occur on-street as it did for the former high school.

A student bike shed is proposed, containing provision for 62 bikes and 10 scooters.

Stage 2 will see construction of a multi-purpose hall and New Learning Neighbourhood 2 building. No additional parking will be provided.

Enrolment and staff numbers are indicated in **Table 2**.

**Table 2 School staff and student numbers**

Stage	Category	Number of People
Stage 1	Student enrolment numbers:	375
	FTE Staff numbers:	40
Stage 2	Student enrolment numbers:	600
	FTE Staff numbers:	60

The staff and student numbers envisaged under Stage 2 are not anticipated to be realised until 2030 or later.



### 3.1 DOSCEL OFFICES

The school will also house the Diocese of Sale Catholic Education Limited (DOCSEL) offices, which directs and services 37 primary schools and 7 secondary schools in the Diocese of Sale. This will operate on the ground and second floors of the school administration building.

Staff and visitor numbers are indicated in **Table 3**.

It is noted that the DOSCEL will hold visitor events once or twice a year with up to 90 visitors on-site; however, at most times it will operate as an office with low visitor numbers.

SALT is advised that the DOSCEL operation is ancillary to the primary school.

**Table 3 DOSCEL staff and visitor numbers**

Use	Category	Number of People
DOSCEL	FTE DOSCEL Staff numbers:	9
	Max DOSCEL visitor numbers:	90 <sup>1</sup>

<sup>1</sup> DOSCEL visitor events will occur once or twice a year

## 4 CAR PARKING

### 4.1 STATUTORY REQUIREMENTS

Car Parking requirements applicable to new developments are specified in Clause 52.06-5 of the Wellington Shire Council Planning Scheme. Given the DOSCEL is ancillary to the primary school, the parking requirements are covered by the the primary school rate.

It is further noted that Clause 22.04 of the Planning Scheme (Car Parking Policy) provides parking rates for various uses that supersede the rates in Clause 52.06. However, there is no rate specified for a primary school and hence the Clause 52.06 rate remains applicable.

The statutory car parking requirements are presented in **Table 4**. This is based on the ultimate stage of development (Stage 2).

**Table 4 Statutory Car Parking Requirement**

Use	Size / Number	Planning Scheme Rate	No. Spaces required <sup>2</sup>	No. Spaces provided	Surplus / Shortfall
Primary School	69 Staff Members <sup>1</sup>	1 to each staff member	69	73	+ 4

<sup>1</sup> Includes school and DOSCEL staff

<sup>2</sup> Car parking requirements are rounded down pursuant to CL52.06

As observed above, the Planning Scheme car parking requirements are exceeded by the proposal.

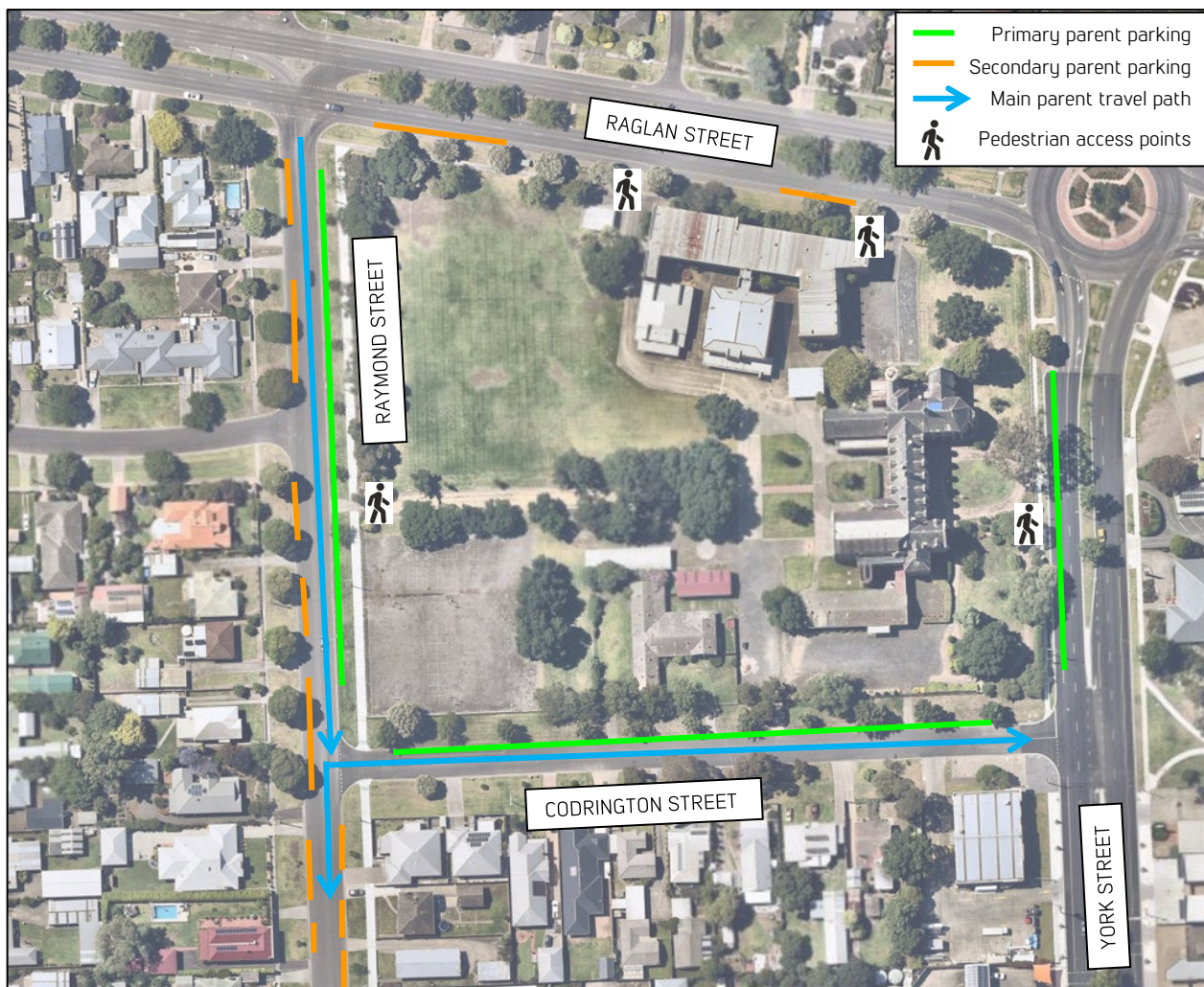
It is noted that parking for students and DOSCEL events is to be accommodated on-street in this instance. Whilst this is not covered by the Planning Scheme requirements, as it is typical for drop-off/pick-up parking to be provided on-street, an assessment is nonetheless provided as follows.

### 4.2 STUDENT DROP-OFF & PICK-UP PARKING

Student drop-off and pick-up parking will be facilitated on-street. **Figure 14** illustrates where parking will be principally accommodated. The blue arrows indicate the preferred direction of travel i.e. travelling from Raglan Street onto Raymond Street and either continuing south after drop off/pick up or turning onto Codrington Street. This is to ensure the majority of children do not have to cross the road to access school grounds.



Parking will not be encouraged on the southern side of Codrington Street so as to ensure smooth traffic flow and allow for simultaneous passing of vehicles if required.



**Figure 14 Pick Up/Drop Off Expected Arrangements**

The above arrangements are consistent with those used by the Catholic College that occupied the site until 2020. The long-term enrolment numbers associated with this school were 390 based on 2013 school records. Under Stage 1, the student numbers will be similar (375) and hence parking demands are also likely to be similar or a slightly higher owing to the fact that more high school students travel to school independently than primary school students. Under Stage 2 (anticipated in 2030) the increase in long term student enrolment of 210 (expected 600 LTE at the proposed primary school) will result in an increased demand for on-street pick up/drop off parking. The red areas outlined in **Figure 12** are capable of providing approximately 107 spaces (excluding parallel parking on the southern side of Codrington Street which should be discouraged).

A study commissioned by the Roads and Maritime Services (RMS) and undertaken by GTA consultants in 2014 determined a range of traffic related generation rates with regards to schools. A total of 22 schools were surveyed rendering an average, minimum and maximum peak parking demand per student. The generation rates as they relate to primary schools are as follows; 0.10, 0.03 and 0.21 parking spaces per student for the average, minimum and maximum respectively. The majority of schools surveyed were in in metropolitan/suburban Sydney and as such the rates are not directly transferrable to regional schools. However, referring to the percentage of visitors to a school that utilise a “car as passenger” in **Figure 15** and **Figure 16** which is representative of primary school students whose parents drop them at school, a more accurate rate can be adopted.

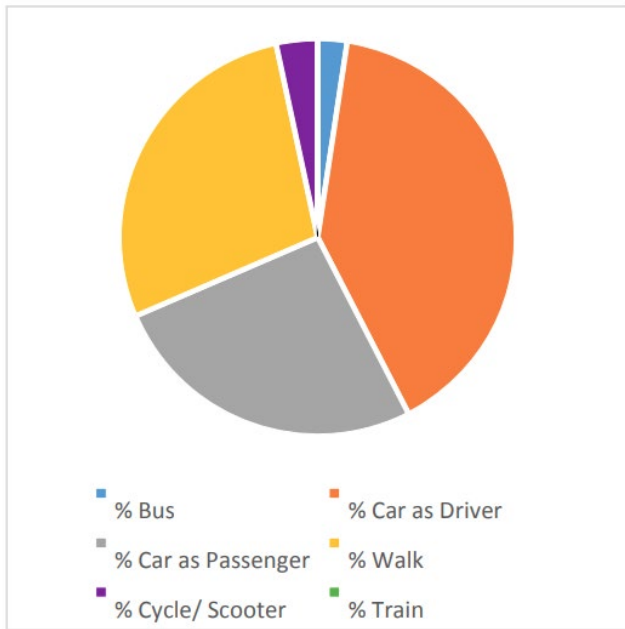


Figure 15 Metropolitan Primary School Interview Survey Average Mode Split

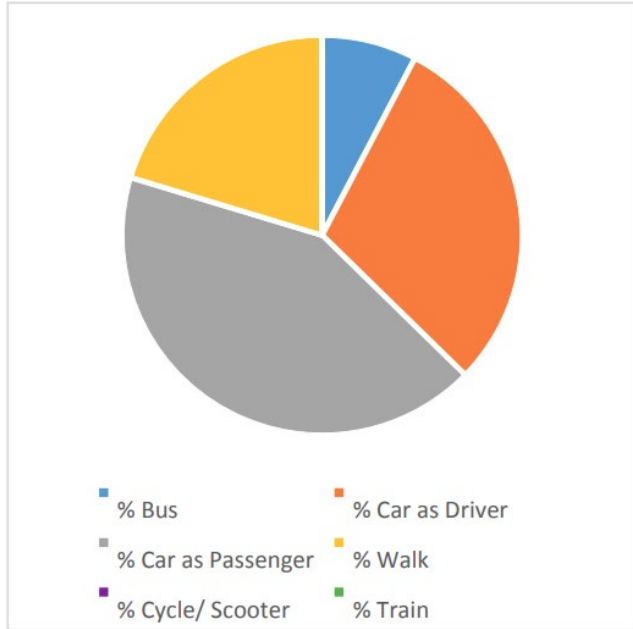


Figure 16 Regional Primary School Interview Average Mode Split

Source: Roads and Maritime Services Trip Generation Surveys Schools Analysis Report (2014)

Comparing the relative size of the grey shaded areas approximately 25% and 33% for metropolitan and regional respectively and applying a proportional increase to the average parking demand per student, an average parking demand of approximately 79 spaces ( $33\%/25\% \times 0.1 \times 600$ ) results.

As outlined in **Section 2.4** there is significant scope for on street parking utilisation both within school peak periods and for the duration of the day. At least 110 vacant spaces were observed within the selected areas (which will increase to 114 spaces once the redundant bus stop on Codrington Street is removed). The peak parking demand will typically occur for no more than 10 – 15 minutes in each of the drop off and pick up periods, with demands lowest in the morning when parents drop off children quickly rather than stopping and waiting, which occurs in the afternoon.

As such, despite the increase in long term student enrolment numbers in this proposal, on-street parking is expected to be readily accommodated by nearby available parking resources on adjacent roads.

### 4.3 DOSCEL PARKING

Up to 90 visitors associated with DOSCEL will attend site on a very infrequent basis (approximately once or twice a year). Adopting a standard 'Place of Assembly' parking rate of 0.3 spaces / patron, this equates to a demand of 27 spaces. This is likely to occur on weekends and outside school drop-off and pick-up periods and can hence be accommodated on-site. Nonetheless, the parking surveys indicate more than adequate availability of public on-street car parking to accommodate this demand should the need arise.

### 4.4 ACCESSIBLE CAR PARKING

The provision of four (4) accessible car parking spaces exceeds the requirements of the National Construction Code for two spaces to be provided.



## 5 DESIGN MATTERS

### 5.1 CAR PARKING ACCESS & LAYOUT

Both car parks are intended to operate in a one-way (clockwise) fashion. The northern car park will utilise a single two-way crossover, whilst the southern car park will use the existing crossovers with the western crossover operating as an 'entry' and the eastern crossover as an 'exit'. These crossovers will be widened to facilitate waste truck access.

The design of the car park and vehicle access arrangements complies with the requirements of Clause 52.06 of the Wellington Council Planning Scheme, AS2890.1:2004 and AS2890.6:2009 where relevant. Convenient, safe and efficient access will be provided.

As assessment against the relevant design criteria of Clause 52.06–9 is provided in **Table 5**.

**Table 5 Design Standards for Car Parking (Clause 52.06–9)**

Design Standard 1 – Accessways Accessways must	Response	
	Northern Car Park	Southern Car Park
<i>Be at least 3 metres wide</i>	Satisfied The accessway is a minimum of 3.5m wide.	Satisfied Both the western and eastern accessways are a minimum of 3.2m wide.
<i>Have an internal radius of at least 4 metres at changes of direction or intersection or be at least 4.2 metres wide</i>	Partially satisfied. The southern accessway is 3.5m wide rather than 4.2m but swept path assessment indicates satisfactory access for a B99 car – refer <b>Appendix 1</b> .	Satisfied. Painted (traversable) islands are proposed at each end of the central parking area, with an effective minimum accessway width of 4.2m on the west side.
<i>Allow vehicles parked in the last space of a dead-end accessway in public car parks to exit in a forward direction with one manoeuvre.</i>	Not Applicable. No dead-end accessway in either car park	
<i>Provide at least 2.1 metres headroom beneath overhead obstructions, calculated for a vehicle with a wheel base of 2.8 metres.</i>	Not Applicable. There are no overhead obstructions.	
<i>If the accessway serves four or more car spaces or connects to a road in a Transport Zone 2 or Transport Zone 3, the accessway must be designed so that cars can exit the site in a forward direction</i>	Satisfied All vehicles can exit the site in a forward direction – refer to vehicle swept paths in <b>Appendix 1</b> .	
<i>Provide a passing area at the entrance at least 6.1 metres wide and 7 metres long if the accessway serves ten or more car parking spaces and is either more than 50 metres long or connects to a road in a Transport Zone 2 or Transport Zone 3.</i>	Not Applicable. The site does not feature an accessway exceeding 50 metres in length, and Codrington Street is not in a Transport Zone.	Complies Raglan Street is a Transport Zone 3. Passing is facilitated by a 6.2m wide crossover and separate one-way entry and exit lanes, which together are at least 6.2m wide and greater than 7.0m long.



Where parking spaces are provided in tandem (one space behind the other) an additional 500 mm in length must be provided between each space.	Not applicable. No spaces are in tandem.													
Where two or more car parking spaces are provided for a dwelling, at least one space must be under cover.	Not applicable. No dwellings are proposed.													
Disabled car parking spaces must be designed in accordance with Australian Standard AS2890.6-2009 (disabled) and the Building Code of Australia. Disabled car parking spaces may encroach into an accessway width specified in Table 2 by 500mm.	Satisfied. Accessible (DDA) parking spaces and the associated shared areas are provided with the following dimensions: DDA space: 2.4m wide by 5.4m long Shared space: 2.4m wide by 5.4m long													
<b>Design Standard 3 – Gradients</b>	<b>Response</b>													
Accessway grades must not be steeper than 1:10 (10 per cent) within 5 metres of the frontage to ensure safety for pedestrians and vehicles. The design must have regard to the wheelbase of the vehicle being designed for; pedestrian and vehicular traffic volumes; the nature of the car park; and the slope and configuration of the vehicle crossover at the site frontage. This does not apply to accessways serving three dwellings or less	Satisfied. Site is generally flat and features no grades/ramps.													
Ramps (except within 5 metres of the frontage) must have the maximum grades as outlined in the table below and be designed for vehicles travelling in a forward direction.	Satisfied. Site is generally flat and features no grades/ramps.													
<p><b>Table 3: Ramp gradients</b></p> <table border="1"> <thead> <tr> <th>Type of car park</th> <th>Length of ramp</th> <th>Maximum grade</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Public car parks</td> <td>20 metres or less</td> <td>1:5 (20%)</td> </tr> <tr> <td>longer than 20 metres</td> <td>1:6 (16.7%)</td> </tr> <tr> <td rowspan="2">Private or residential car parks</td> <td>20 metres or less</td> <td>1:4 (25%)</td> </tr> <tr> <td>longer than 20 metres</td> <td>1:5 (20%)</td> </tr> </tbody> </table>	Type of car park	Length of ramp	Maximum grade	Public car parks	20 metres or less	1:5 (20%)	longer than 20 metres	1:6 (16.7%)	Private or residential car parks	20 metres or less	1:4 (25%)	longer than 20 metres	1:5 (20%)	
Type of car park	Length of ramp	Maximum grade												
Public car parks	20 metres or less	1:5 (20%)												
	longer than 20 metres	1:6 (16.7%)												
Private or residential car parks	20 metres or less	1:4 (25%)												
	longer than 20 metres	1:5 (20%)												
Where the difference in grade between two sections of ramp or floor is greater than 1:8 (12.5 per cent) for a summit grade change, or greater than 1:6.7 (15 per cent) for a sag grade change, the ramp must include a transition section of at least 2 metres to prevent vehicles scraping or bottoming.	Not Applicable. No ramps are proposed.													
Plans must include an assessment of grade changes of greater than 1:5.6 (18 per cent) or less than 3 metres apart for clearances, to the satisfaction of the responsible authority.	Not Applicable. No ramps are proposed.													



## 5.2 PEDESTRIAN ACCESS

Pedestrian access is proposed as follows (refer also to **Figure 14**):

Western side (Raymond Street):	Primary student access point from drop-off/pick-up parking
Southern side (Codrington Street):	Maintenance access only
Northern side (Raglan Street):	Secondary student access points (x2) & visitor access
Eastern side (York Street):	Secondary student access point & visitor access

The provision of pedestrian access points for students on three frontages allows for efficient access and use of all available on-street parking spaces surrounding the site, noting parents parking on Codrington Street will be required to walk to the east or west gates over a relatively short distance.

## 6 BICYCLE PARKING

### 6.1 STATUTORY REQUIREMENTS

Bicycle parking requirements applicable to the proposal are specified in Clause 52.34 of the Wellington Shire Planning Scheme. The relevant requirements are presented in **Table 4** for the Stage 2 (ultimate) scenario. As no breakdown for the number of students in each year has been provided an even distribution has been assumed, equating to a total of 200 students in year 5 and 6 (600 total / 6 year levels x 2 year levels).

**Table 6 Statutory Bicycle Parking Requirements**

Use	Size	Planning Scheme Rate	No. Spaces Required	No. Spaces Provided	Surplus / Shortfall
Primary School	60 Staff	1 staff space to each 20 employees	3 (staff)	0 (staff)	-3 (staff)
	600 Students	1 student space to each 5 pupils over Year 4	36 (students <sup>1</sup> )	62 (students)	+26 students)

<sup>1</sup> For the purpose of this calculation, it is assumed that 30% of students are over Year 4

As such, the student bicycle parking requirement is met and exceeded. The bike cage is located on-site adjacent to the main student pedestrian entrance off Raymond Street.

Staff are expected to utilise indoor areas to park their bikes and as such an indeterminate number of bicycle parking has been provided which will meet the demand as required.

### 6.2 BICYCLE FACILITY DESIGN

The student bike shed proposes the use of Cora Expo 7510-J junior bicycle racks – refer **Figure 17**. These will be provided in a mix of single and double-sided configurations, with dimensions complying with the manufacturer's specifications available at [www.cora.com.au](http://www.cora.com.au). This also ensures compliance with AS2890.3, with allowance for a bicycle depth of 1800mm and an aisle width of 1500mm.

In addition, a single Cora SRS10 scooter rack will be installed. Sufficient spatial allowance is provided to meet the manufacturer specifications. It is noted that there are no applicable Australian Standards for scooter parking.



Figure 17 Cora Expo 7510-J junior bicycle rack



Figure 18 Cora SRS10 scooter rack

## 7 LOADING AND WASTE COLLECTION

Loading activities associated with the school are likely to be infrequent and can occur within the main staff car park or on-street adjacent the site.

Waste collection will occur by front hook lift trucks, required to empty steel bins. Swept path analysis (refer **Appendix 1**) demonstrates a Hook Lift truck turning around within the car park to collect waste outside of school and office hours (i.e. when the car park is effectively empty).

The swept path shows the truck entering the southern car park from the western accessway and driving over painted islands and empty car parks to access the bin area (picking up bins from its front end). It then utilises empty car parking spaces and the parking aisle to turn around and exit the site using the eastern accessway. Both ingress and egress movements are coming from and going towards York Street replicating private waste collection vehicles using main rather than residential roads.

## 8 TRAFFIC IMPACTS

### 8.1 TRAFFIC GENERATION

The same study commissioned by the Roads and Maritime Services (RMS) was used as a source for numeric values for the following analysis. The critical assessment periods identified for use in this study are weekday morning and afternoon peak periods, with the peak periods typically occurring from (approximately) 7:30am – 9:30am and 2:30pm – 4:30pm for a school.

Whilst the study considers a 2-hour time period that encompasses the beginning and end of the school day, it is noted that the absolute peak traffic generation occurs for a small subsection of this time. Often the absolute peak traffic generation occurs in the 15 minutes before and 15 minutes after the start and end of the school day. As such, an uneven traffic generation is expected during the indicated 2-hour time periods.

Nonetheless, it was determined that for primary schools a peak person trip generation rate for the AM peak period was between 0.43–1.35 vehicle trips per student and for the PM peak period it was 0.14–1.09 vehicle trips per student with an average of 0.88 and 0.71 vehicle trips per student respectively. For the purposes of this assessment average values were adopted. As such, for 600 children (Stage 2) this equates to 528 AM vehicle peak period trips and 426 PM vehicle peak period trips. In accordance with the study the following directional split during the AM and PM peak periods has been adopted.

- During the AM peak period (0.88 vehicle trips per student)
  - 51% in (269 vehicle trips);
  - 49% out (259 vehicle trips)
- During the PM peak period (0.71 vehicle trips per student)
  - 49% in (209 vehicle trips);
  - 51% out (217 vehicle trips)

### 8.2 TRAFFIC DISTRIBUTION

It is anticipated that parents and guardians will utilise available on-street parking along, Raymond Street, York Street, Raglan Street and Codrington Street. Additionally, staff car parks are accessible via Raglan Street and Codrington Street.

Given this proposed configuration, the distribution of peak traffic demand is likely to be dispersed across the surrounding roads i.e. parents will use whatever on-street parking is available to them at the time of their arrival, and relatively evenly spread across the road network in the vicinity of the site at peak times, though with the greatest proportion using Raymond Street as that is where the majority of on-street car parking is.

### 8.3 TRAFFIC IMPACT

To determine the relative impact this proposal would likely have on the surrounding road network relevant, the traffic data supplied by Council has been reviewed – refer **Section 2.5**. In 2016, with the former school in operation, Raymond Street carried an average of 3,351 vehicles per day (two-way). This falls within the range of 3,000 – 7,000 vehicles per day for a Connector Street – Level 2, having reference to Clause 56.06 of the Wellington Shire Planning Scheme.

Considering the addition of the entire calculated peak period traffic volumes, 528 AM peak period vehicle trips and 426 PM peak period vehicle trips, to the existing volume, the daily traffic volume would equal 4,305 vpd. This figure lies below the maximum target daily volume of 7000 vpd. Whilst this is based on a count from 2016 (7 years ago), it is conservatively high given:

- It includes *both* primary school traffic and the traffic generated by the former high school; and
- It assumes all traffic will be distributed solely onto Raymond Street, when in reality some of the traffic will occur on York, Codrington and Raglan Street.

Based on this and given there are multiple avenues for parents to access the site, the additional traffic generated by the primary school is not anticipated to have a major impact on the surrounding road network, beyond typical brief increases in delays and queueing at drop-off and pick-up times that are common to virtually all schools.

It is further noted that this level of traffic is not anticipated to occur until 2030 or later, and in the interim the traffic volumes will be significantly lower.



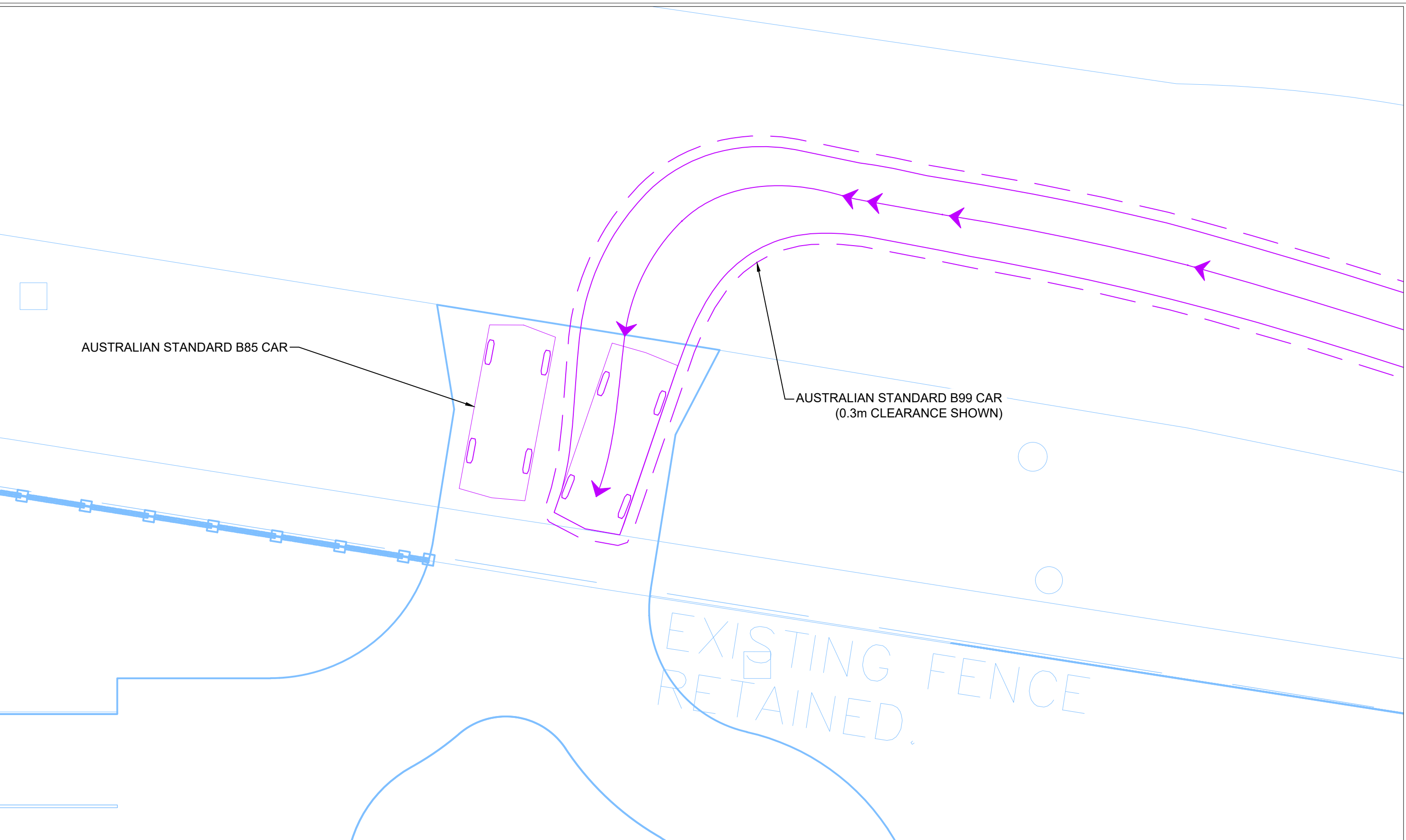
## 9 CONCLUSIONS

Based on the considerations outlined in this report; it is concluded that:

- The Planning Scheme car parking requirement is 69 spaces, which is exceeded by the proposed provision of 73 on-site parking spaces;
- The proposed car park access and layout complies with the Planning Scheme and will facilitate safe, convenient and efficient parking for staff and visitors;
- Sufficient on-street parking is available to facilitate parents and guardians dropping off and picking up children;
- The provision of student bicycle parking (62 spaces) exceeds the required provision of 36 spaces. The requirement for staff parking (3 spaces) can be accommodated within the building/s;
- Sufficient provisions are made for on-site waste vehicle access and collection arrangements;
- The additional traffic generated by the primary school will have no significant adverse impact on the safety and operation of the surrounding road network, when taking into consideration the site's former use as a high school.

Accordingly, there is no parking or traffic reason to preclude the granting of a Planning Permit.

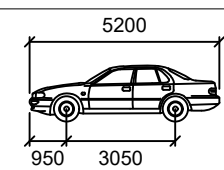
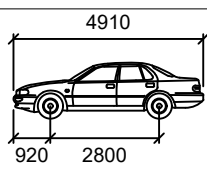
# APPENDIX 1 VEHICLE SWEEP PATH DIAGRAMS



AUSTRALIAN STANDARD B85 CAR

AUSTRALIAN STANDARD B99 CAR  
(0.3m CLEARANCE SHOWN)

EXISTING FENCE  
RETAINED.



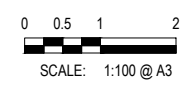
	B85		B99	
	mm		mm	
Width	: 1870		: 1940	
Track	: 1770		: 1840	
Lock to Lock Time	: 6.0		: 6.0	
Steering Angle	: 34.1		: 33.9	

**Y2 ARCHITECTURE**  
SISTERS OF SION, SALE - PRIMARY SCHOOL  
341-349 YORK STREET  
SALE  
VEHICLE SWEEP PATH

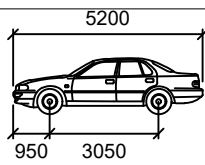
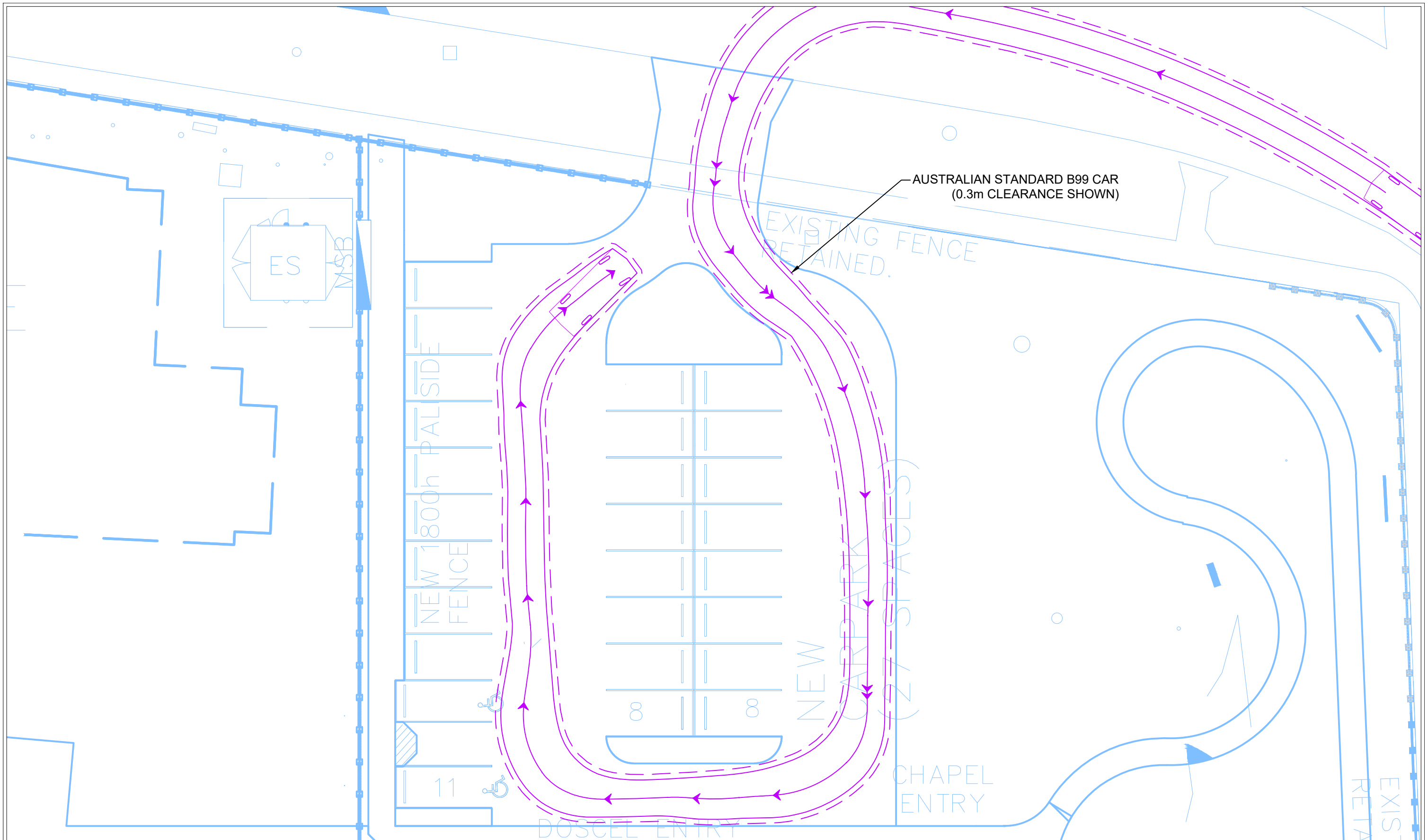


Service. Approachability. Loyalty. Transparency.

Melbourne: Level 3, 51 Queen St Melbourne VIC 3000  
Sydney: 303, 61 Marlborough Street Surry Hills NSW 2010  
Hobart: Level 4, 116 Bathurst St Hobart TAS 7000  
Canberra: Level 3, 33-35 Ainslie Pl Canberra ACT 2601  
Adelaide: Level 21, 25 Grenfell St Adelaide SA 5000



DRAWN / CHECKED	DATE	SIZE
ZS/JW	11-05-2023	A3
DRAWING NUMBER	REVISION	
SALT-22146-SK-001	1	



B99

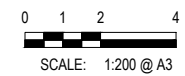
	mm
Width	: 1940
Track	: 1840
Lock to Lock Time	: 6.0
Steering Angle	: 33.9

**Y2 ARCHITECTURE**  
 SISTERS OF SION, SALE - PRIMARY SCHOOL  
 341-349 YORK STREET  
 SALE  
 VEHICLE SWEEP PATH



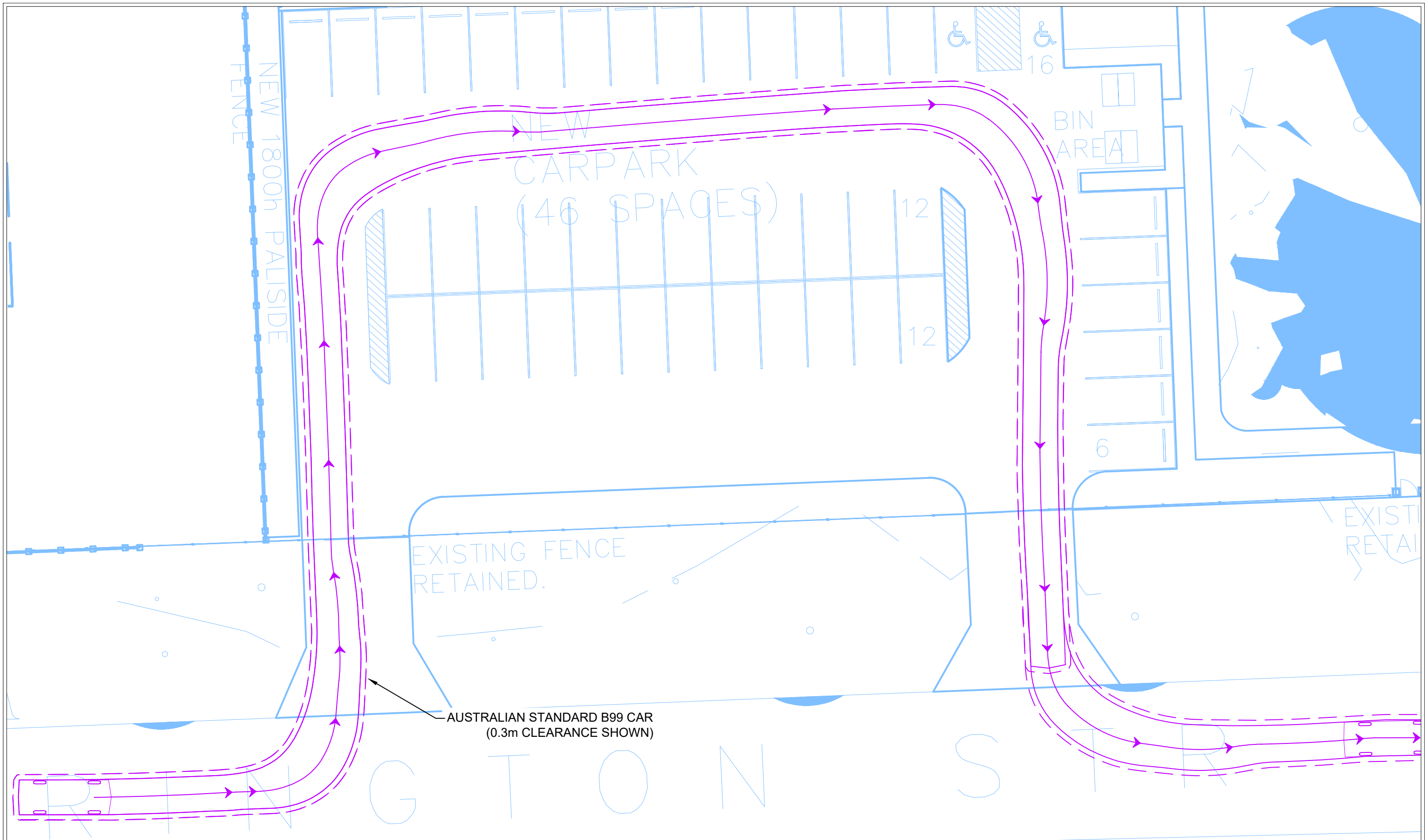
Service. Approachability. Loyalty. Transparency.

Email: salt@salt3.com.au  
 A/N: 18 439 813 274  
 Ph: 03 9020 4225  
 Melbourne: Level 3, 51 Queen St Melbourne VIC 3000  
 Sydney: 303, 61 Marlborough Street Surry Hills NSW 2010  
 Hobart: Level 4, 116 Bathurst St Hobart TAS 7000  
 Canberra: Level 3, 33-35 Ainslie Pl Canberra ACT 2601  
 Adelaide: Level 21, 25 Grenfell St Adelaide SA 5000

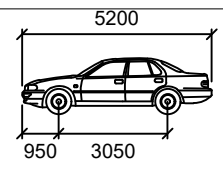


DRAWN / CHECKED	DATE	SIZE
ZS/JW	11-05-2023	A3
DRAWING NUMBER	REVISION	
SALT-22146-SK-002	1	





AUSTRALIAN STANDARD B99 CAR  
(0.3m CLEARANCE SHOWN)



**B99**

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

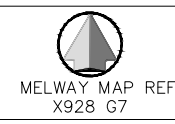
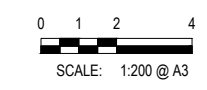
**Y2 ARCHITECTURE**  
SISTERS OF SION, SALE - PRIMARY SCHOOL  
341-349 YORK STREET  
SALE  
VEHICLE SWEEP PATH



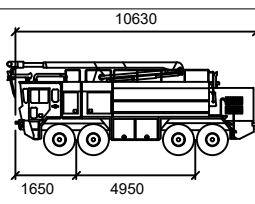
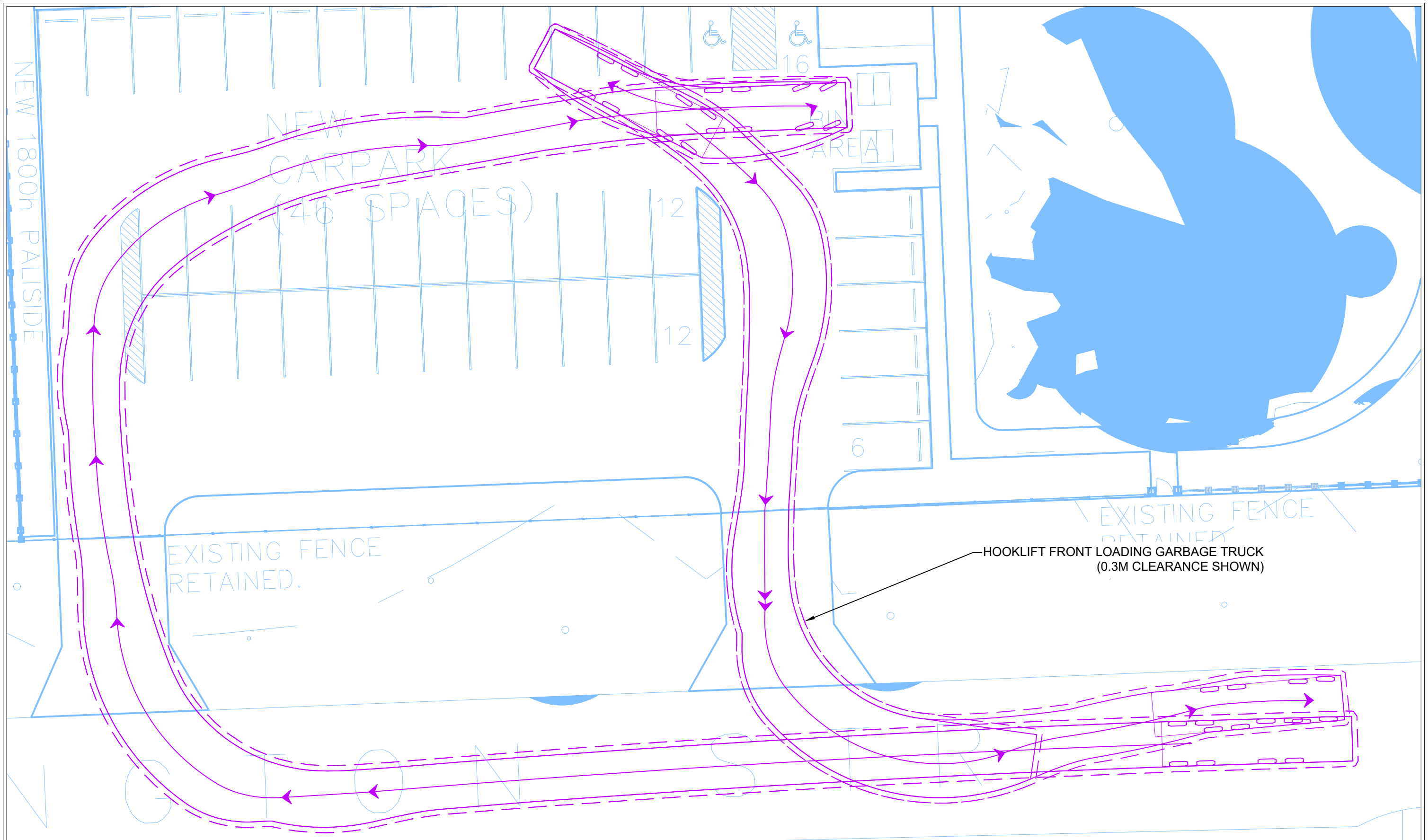
Service. Approachability. Loyalty. Transparency.

Email: salt@salt3.com.au  
ABN: 18 439 813 274  
Ph: 03 9020 4225

Melbourne: Level 3, 51 Queen St Melbourne VIC 3000  
Sydney: 303, 51 Marlborough Street Surry Hills NSW 2010  
Hobart: Level 4, 116 Bathurst St Hobart TAS 7000  
Canberra: Level 3, 33-35 Ainslie Pl Canberra ACT 2601  
Adelaide: Level 21, 25 Grenfell St Adelaide SA 5000



DRAWN / CHECKED <b>ZS/JW</b>	DATE <b>11-05-2023</b>	SIZE <b>A3</b>
DRAWING NUMBER <b>SALT-22146-SK-003</b>	REVISION <b>1</b>	



**HOOK LIFT**

mm

Width : 2500  
 Track : 2500  
 Lock to Lock Time : 6.0  
 Steering Angle : 27.1

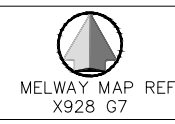
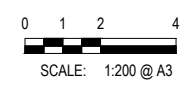
**Y2 ARCHITECTURE**  
 SISTERS OF SION, SALE - PRIMARY SCHOOL  
 341-349 YORK STREET  
 SALE  
 VEHICLE SWEEP PATH



Service. Approachability. Loyalty. Transparency.

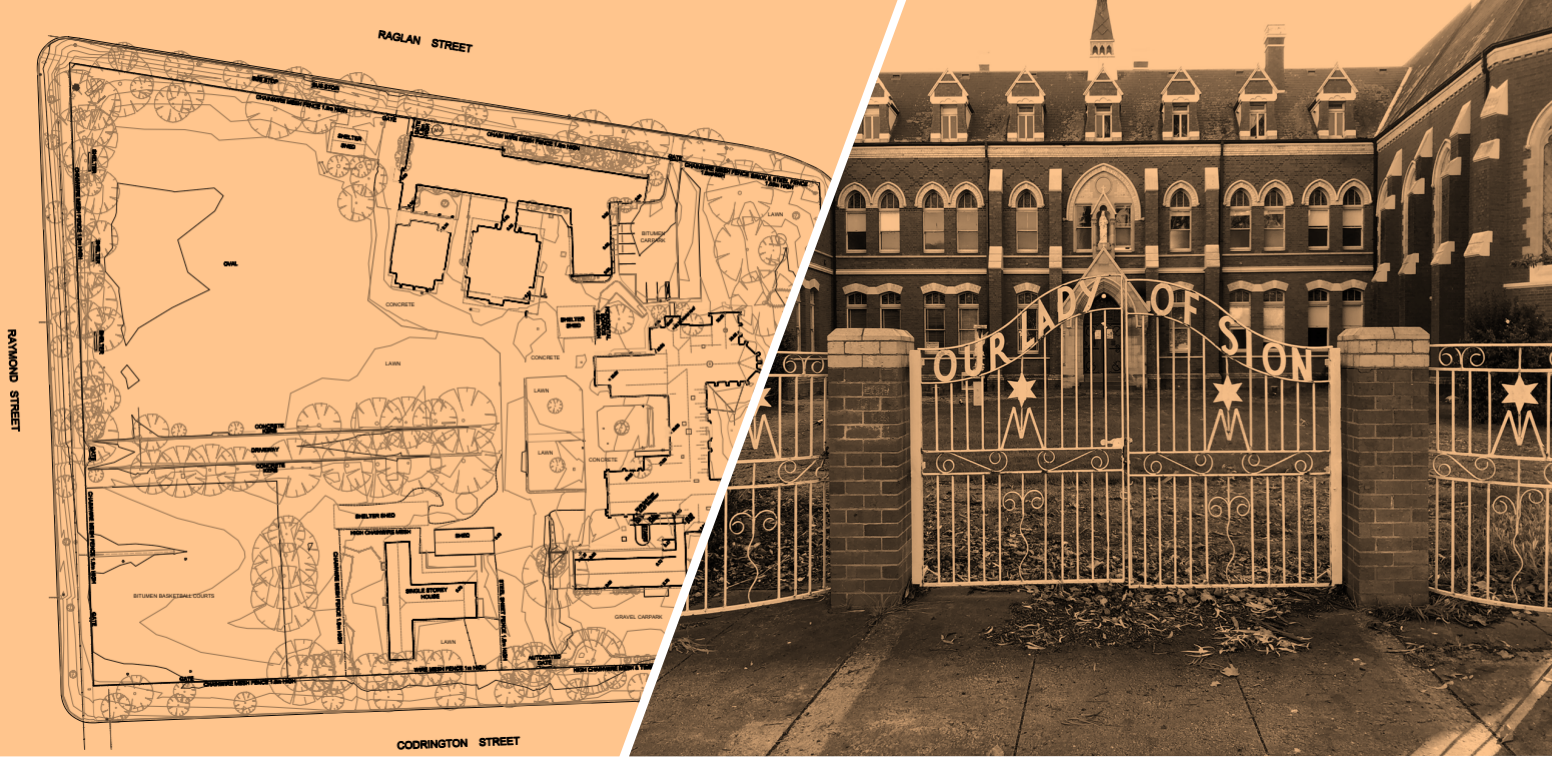
Email: salt@salt3.com.au  
 ABN: 18 439 813 274  
 Ph: 03 9020 4225

Melbourne: Level 3, 51 Queen St Melbourne VIC 3000  
 Sydney: 303, 51 Marborough Street Surry Hills NSW 2010  
 Hobart: Level 4, 116 Bathurst St Hobart TAS 7000  
 Canberra: Level 3, 33-35 Ainslie Pl Canberra ACT 2601  
 Adelaide: Level 21, 25 Grenfell St Adelaide SA 5000



DRAWN / CHECKED	DATE	SIZE
ZS/JW	11-05-2023	A3
DRAWING NUMBER	REVISION	
SALT-22146-SK-004	1	

This page is intentionally left blank



Service. Approachability. Loyalty. Transparency.

**MELBOURNE**

Level 3, 51 Queen St Melbourne VIC 3000

T: +61 3 9020 4225

**SYDNEY**

Suite 303/61 Marlborough St Surry Hills NSW 2010

T: +61 2 9068 7995

**HOBART**

Level 4, 116 Bathurst St Hobart TAS 7000

T: +61 400 535 634

**CANBERRA**

Level 3, 33-35 Ainslie Pl Canberra ACT 2601

T: +61 2 9068 7995

**ADELAIDE**

Level 21, 25 Grenfell St Adelaide SA 5000

T: +61 8 8484 2331

[www.salt3.com.au](http://www.salt3.com.au)

