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**Victorian Flexible Schools c/o St Joseph's College**  
5 Brenock Park Drive  
Fentree Gully VIC 3156  
Attention: Hayden Buis

**23 September 2024**  
Project #: WGA242165  
Doc. WGA242165-LT-TT-0001\_B  
E: hayden.buis@stjosephs.vic.edu.au

Dear Hayden,

## **186 BUNGAREE-WALLACE ROAD, BUNGAREE | PROPOSED SECONDARY SCHOOL | TRAFFIC ENGINEERING ASSESSMENT**

### **1. INTRODUCTION**

WGA has been engaged by St Joseph's College to undertake a Traffic Engineering Assessment of the proposed secondary school to be located on the subject site addressed as 186 Bungaree-Wallace Road, Bungaree.

The following provides an assessment of the appropriateness of the proposed development from a traffic engineering perspective.

In the course of undertaking this assessment, WGA has reviewed and referenced 'Proposed Car Park' plans prepared by Retractive Consulting dated 18 September 2024, along with Nearmap aerial / Google Streetview imagery and recent site photos as required.

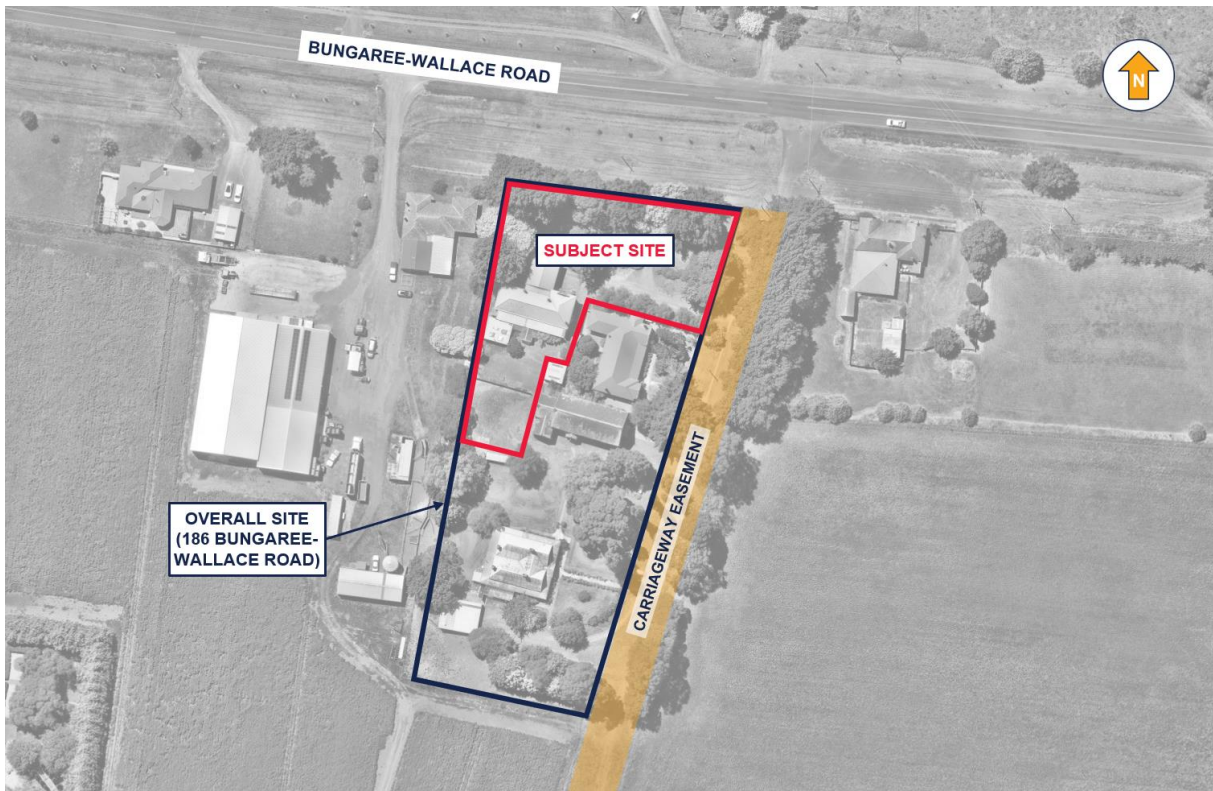
### **2. EXISTING CONDITIONS**

#### **2.1 General**

The overall site is located on the south side of Bungaree-Wallace Road, approximately 1.8km east of its intersection with Western Freeway. It is zoned Farming Zone under the Moorabool Planning Scheme and is currently occupied by several buildings proposed to be retained under this application.

Vehicle access to the site is provided via a carriageway easement that runs along the entire eastern boundary of the site to Bungaree-Wallace Road. Land use in the vicinity of the site is generally farming and residential.

The subject site is located on the front portion of the overall site. It is L-shaped and has a site area of approximately 3,500m<sup>2</sup>. The subject site includes an informal car park on the front portion of the subject site with access to the carriageway easement provided. The subject site, in the context of the overall site and surrounding locality, is shown in Figure 2.1.



**Figure 2.1: Aerial View of the Subject Site and Environs**

### **3. THE PROPOSAL**

#### **3.1 General**

The proposal constitutes the development of the subject site to a 'secondary school' which includes refurbishment of an existing building and construction of a new modular classroom at the rear.

The application seeks to accommodate up to 12 staff and 60 students onsite at any one time. Students will travel via private bus service from the existing St Joseph's campus located at 9-11 Humffray Street, Ballarat. It is expected that some staff will also travel via the coach service to the site, with the remainder able to park on-site.

An extract of the proposed site layout plan (excluding details of the car park) is provided in Figure 3.1.

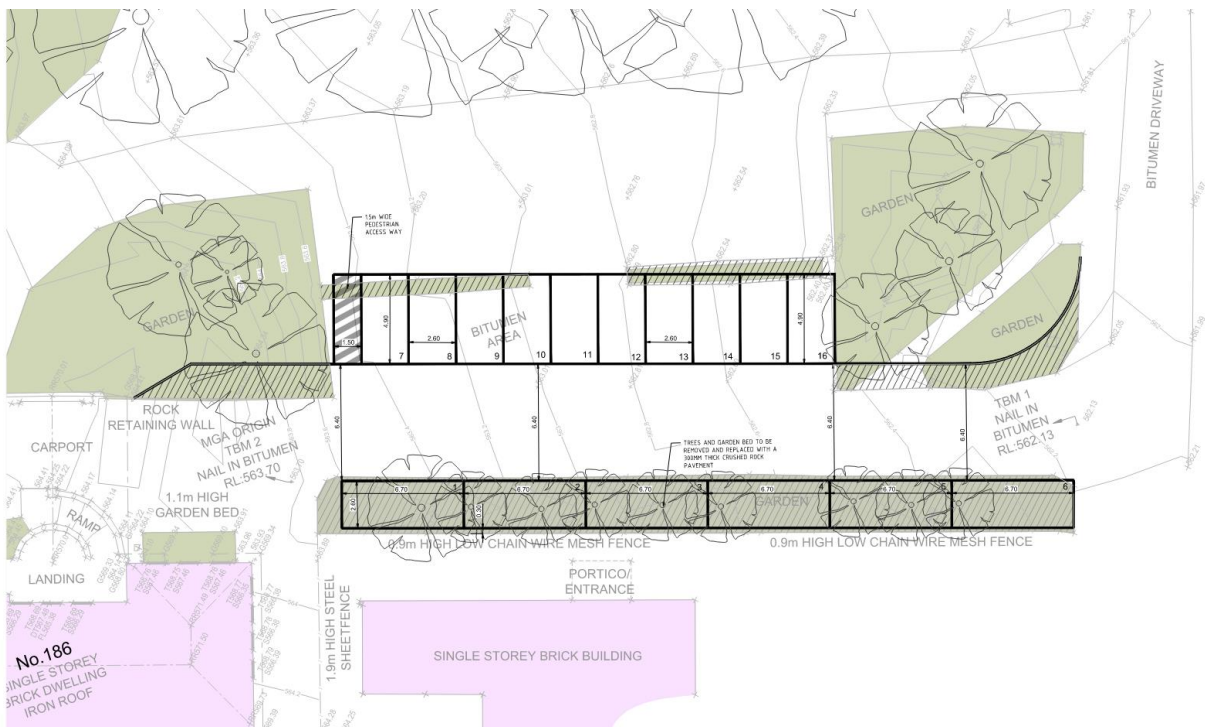


**Figure 3.1: Site Layout Plan (Excluding Car Parking)**

### 3.2 Car Parking & Access

It is proposed to formalise the existing car parking area to provide a total of 16 car parking spaces with two-way access provided via the southern parking aisle to the carriageway easement. The car park will also include a turnaround area at the end of aisle to accommodate vehicle egress movements.

An extract of the proposed car park layout is provided in Figure 3.2.



**Figure 3.2: Car Park Layout Plan**

Swept path analysis has been undertaken by WGA to confirm the use of the turnaround area / accessibility of the critical car parking space, as is evidenced in Appendix A.

### 3.3 Bus Drop-off/Pick-up

As mentioned above, it is proposed to transport students and some staff via private bus service from the existing St Joseph’s campus located at 9-11 Humffray Street, Ballarat. The bus(es) shall turn into the carriageway easement from Bungaree-Wallace Road and turn around at the end of the overall site. The proposed drop-off/pick-up location is proposed along the carriageway easement to the south of the car park access.

Swept path analysis has been undertaken by WGA to confirm the accessibility of the proposed bus to and from the drop-off/pick-up location, as shown in Appendix A.

## 4. CAR PARKING CONSIDERATIONS

### 4.1 Statutory Car Parking Requirements

Clause 52.06-5 of the Moorabool Planning Scheme sets out the stator requirements for car parking.

The land use of the proposed development is classified as “Secondary School” under Clause 73.03 – Land Use Terms of the Planning Scheme.

The statutory car parking requirement applicable to the proposal is set out in Table 4.1.

**Table 4.1: Statutory Car Parking Requirements**

USE	SIZE / NO.	STATUTORY PARKING RATE	STATUTORY PARKING REQUIREMENT
Secondary School	12 staff	1.2 spaces to each employee that is part of the maximum number of employees on the site at any time	14 spaces
<b>TOTAL</b>			<b>14 spaces</b>

Application of the above rates to the proposal results in a statutory car parking requirement for 14 car parking spaces onsite.

### 4.2 Appropriateness of Proposed Car Parking Arrangements

As a total of 16 car parking spaces are proposed to be provided onsite, the proposal provides car parking in excess of the statutory requirements and is therefore considered acceptable and appropriate.

### 4.3 Clause 52.06 Design Standard Assessment

#### 4.3.1 Design Standard 1: Accessways

A summary of the assessment of the development proposal in accordance with Design Standard 1 to Clause 52.06-9 is provided within Table 4.2.

**Table 4.2: Clause 52.06-9 Layout Assessment – Design Standard 1 (Accessways)**

<b>DESIGN CRITERIA – ACCESSWAYS</b>	<b>ASSESSMENT</b>
Be at least 3 metres wide.	Satisfied.
Have an internal radius of at least 4 metres at changes of direction or intersection or be at least 4.2 metres wide.	Satisfied.
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.	Not applicable.
Provide at least 2.1 metres headroom beneath overhead obstructions, calculated for a vehicle with a wheelbase of 2.8 metres.	Not applicable.
If the accessway serves four or more car spaces or connects to a road in a Road Zone, the accessway must be designed so that cars can exit the site in a forward direction.	Satisfied.
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 Road Zone.	Not applicable.
Have a corner splay or area at least 50 per cent clear of visual obstructions extending at least 2 metres along the frontage road from the edge of an exit lane and 2.5 metres along the exit lane from the frontage, to provide a clear view of pedestrians on the footpath of the frontage road. The area clear of visual obstructions may include an adjacent entry or exit lane where more than one lane is provided, or adjacent landscaped areas, provided the landscaping in those areas is less than 900mm in height.	Satisfied.
If an accessway to four or more car parking spaces is from land in a Road Zone, the access to the car spaces must be at least 6 metres from the road carriageway.	Not applicable.

#### 4.3.2 Design Standard 2: Car Parking Spaces

A summary of the assessment of the development proposal in accordance with Design Standard 2 to Clause 52.06-9 is provided within Table 4.3.

**Table 4.3: Clause 52.06-9 Layout Assessment – Design Standard 2 (Car Parking Spaces)**

<b>DESIGN CRITERIA – CAR PARKING SPACES</b>	<b>ASSESSMENT</b>
Car parking spaces and accessways must have the minimum dimensions as outlined in Table 2 of Clause 52.06-9 of the Planning Scheme.	Satisfied.
Clearance is provided to car parking spaces in accordance with Diagram 1 of Clause 52.06-9 of the Planning Scheme.	Satisfied.
Garages/Carports: Spaces must be at least 6m long and 3.5m wide for a single space and 5.5m wide for a double space (measured inside the garage/carport).	Not applicable.
Tandem Parking: An additional 0.5m to be provided between each tandem parking space.	Not applicable.
Where two or more car parking spaces are provided for a dwelling, at least one space must be undercover.	Not applicable.

DESIGN CRITERIA – CAR PARKING SPACES	ASSESSMENT
Disabled car parking spaces to be in accordance with AS 2890.6-2009 and the BCA (NCC). Disabled car parking spaces may encroach into an accessway width specified within Table 2 of Clause 52.06-9 of the Planning Scheme by 0.5m.	Not applicable.

#### 4.3.3 Design Standard 3: Gradients

Satisfied. No significant grade changes are proposed.

#### 4.3.4 Design Standard 4: Mechanical Parking

The proposed site does not include the provision of mechanical parking.

#### 4.3.5 Design Standard 5: Urban Design

Urban design is outside the scope of this report.

#### 4.3.6 Design Standard 6: Safety

Lighting and signage have not been shown but should be incorporated as part of detailed design.

#### 4.3.7 Design Standard 7: Landscaping

Landscaping is outside the scope of this assessment.

### 5. TRAFFIC CONSIDERATIONS

#### 5.1 Traffic Generation & Impact

All students and some staff are expected to arrive by private bus service. Traffic generation to the subject site will be associated with bus movements and remaining staff who choose to drive to the subject site.

Conservatively assuming there will be up to three (3) bus trips per day, 75% of staff choosing to drive to the subject site, and all trips in or out occur in the same hour, the proposal is anticipated to generate up to 12 movements in or out of the site in any one peak hour.

This level of traffic generated is anticipated to have minimal impact on the safety and operation of Bungaree-Wallace Road and the broader road network.

### 6. BICYCLE PARKING CONSIDERATIONS

#### 6.1 Statutory Bicycle Parking Requirements

Statutory requirements for the provision of bicycle parking are set out in Table 1 to Clause 52.34-5 of the Moorabool Planning Scheme.

The statutory bicycle parking requirements for the proposal are set out in Table 6.1.

**Table 6.1: Statutory Bicycle Parking Requirements**

USE	SIZE / NO.	STATUTORY PARKING RATE		STATUTORY PARKING REQUIREMENT	
		EMPLOYEE	STUDENT	EMPLOYEE	STUDENT
<b>Secondary School</b>	12 staff 60 students	1 to each 20 employees	1 to each 5 pupils	1 space	12 spaces
<b>TOTAL</b>				<b>13 spaces</b>	

Application of the above rates to the proposed development results in a statutory requirement for 13 bicycle parking spaces onsite.

## 6.2 Adequacy of Bicycle Parking Supply

No formal bicycle parking spaces are proposed. It is noted that all students will arrive by bus and therefore will not require bicycle parking. Shall staff choose to cycle to the site, noting there is ample space within the subject site to accommodate bicycle parking if required.

## 7. LOADING / WASTE COLLECTION CONSIDERATIONS

Clause 65.01 of the Moorabool Planning Scheme requires:

*'Before deciding on an application or approval of a plan, the responsible authority must consider, as appropriate, the adequacy of loading and unloading facilities and any associated amenity, traffic flow and road safety impacts.'*

Loading activities are anticipated to be infrequent. It is proposed to utilise the carriageway easement, adjacent to the subject site car park access, to undertake any loading and waste collection activities.

## 8. CONCLUSION

On the basis of the matters discussed in the preceding assessment, WGA considers that the proposed arrangements intended to service the development are both acceptable and appropriate.

We are therefore in support of the proposal and do not believe there to be any traffic engineering grounds that would otherwise prohibit the issue of town planning approval for the proposed development.

Should you have any queries relating to this matter please contact our office.

Yours sincerely,



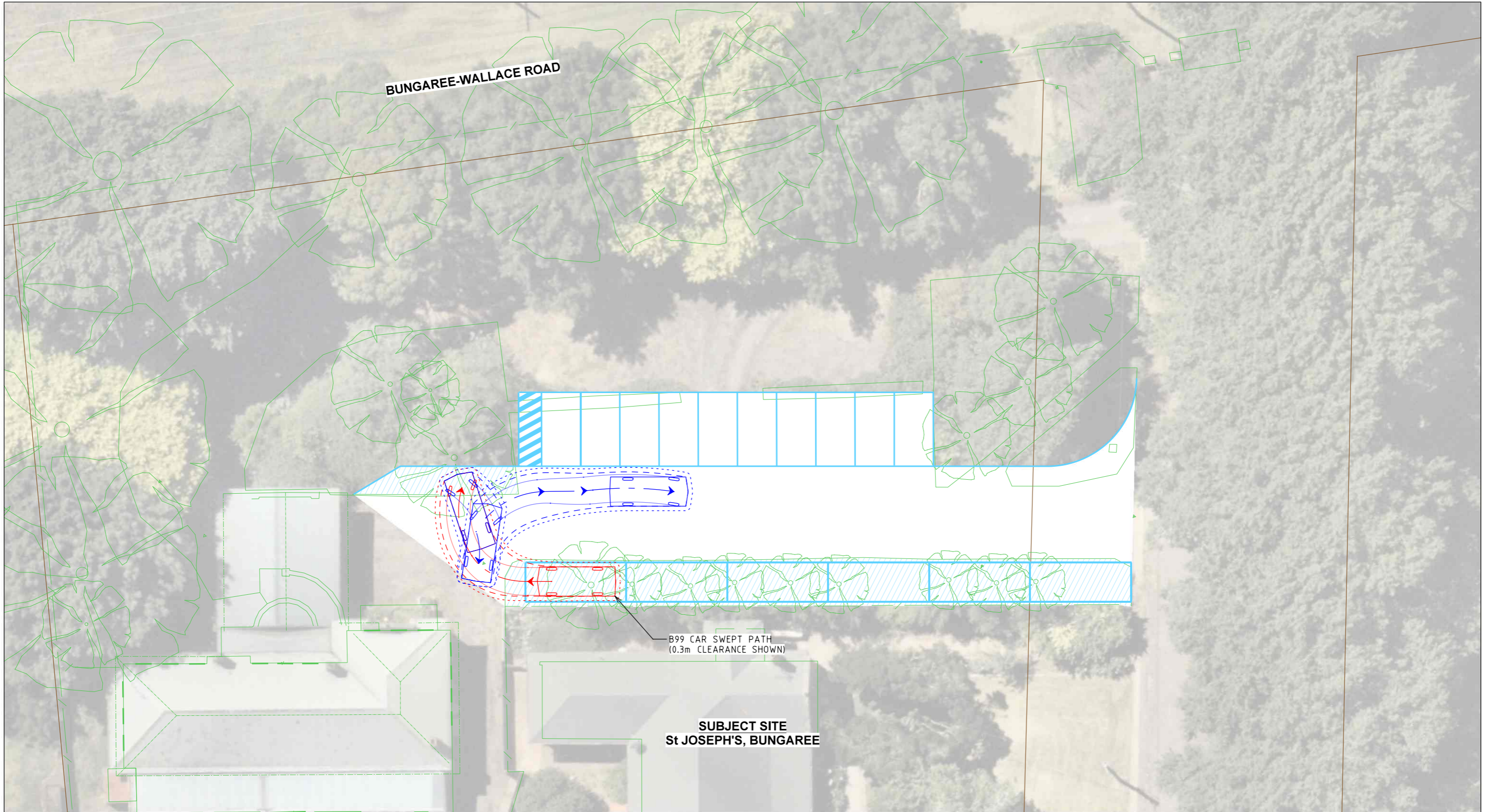
Manuel Vezaro  
Senior Traffic Engineer  
**WALLBRIDGE GILBERT AZTEC**

## Appendix A SWEPT PATH ANALYSIS

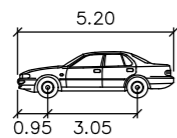
# **APPENDIX A**

## **SWEPT PATH ANALYSIS**





**DESIGN VEHICLE**



B99

	meters
Width	: 1.94
Track	: 1.84
Lock to Lock Time	: 6.0
Steering Angle	: 33.9

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NOT FOR CONSTRUCTION

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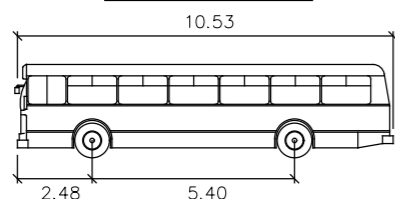


**St JOSEPH'S, BUNGAREE**  
 186 BUNGAREE-WALLACE ROAD, BUNGAREE  
 PROPOSED CAR PARK  
 B99 CAR SWEEP PATH ANALYSIS

Design	Drawn	DOCUMENT NUMBER	Sheet No.	Rev.
L.S	L.S	WGA242165-SK-TT-0001	A	A



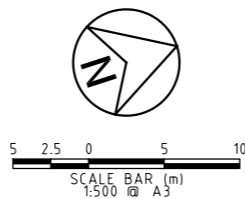
**DESIGN VEHICLE**



Toyota Sora

Width : 2.49 meters  
 Track : 2.49  
 Lock to Lock Time : 6.0  
 Steering Angle : 38.7

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A	19.09.2024	ISSUED FOR INFORMATION	L.S	L.S	M.V



**St JOSEPH'S, BUNGAREE**  
 186 BUNGAREE-WALLACE ROAD, BUNGAREE  
 PROPOSED CAR PARK  
 10.53m BUS SWEEP PATH ANALYSIS

DOCUMENT NUMBER  
 Job Number Sheet No. Rev.  
 Design L.S Drawn L.S WGA242165-SK-TT-0002 A