



TRAFFIC & PARKING ASSESSMENT

Proposed Child Care Centre

110 – 112 Deccan Street

GOULBURN

NOVEMBER 2024

Ref: TR541_0

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1. Introduction

Wongala Consulting Engineers was engaged by Stone Commercial Group Pty Ltd to carry out a traffic and parking assessment to support a development application for a proposed child care centre located at 110 - 112 Deccan Street, Goulburn that is to be submitted to Goulburn Mulwaree Council.

The subject property at 110 - 112 Deccan Street, Goulburn fronts two local roads (Deccan Street & Clifford Street) which provide a route for vehicles to access residential properties in the area. This report assesses the traffic and parking implications of the proposed development at the subject property. The report will also determine whether the parking areas comply with Australian Standards. Reference shall be made to the *Goulburn Mulwaree Development Control Plan 2009*, *NSW Department of Planning and Environment Child Care Planning Guideline 2021*, *Austroads Guide to Traffic Management*, the *RTA Guide to Traffic Generating Developments 2002*, and *AS2890.1:2004 Parking – Off Street Car Parking*.

2. Location and Land Use

The existing site consists of a residential dwelling. The subject property is zoned R1 General Residential with residential dwellings surrounding the site and Goulburn High School directly opposite. Figure 1 presents an aerial of the proposed development site.



Figure 1: Aerial Photo of Subject Site (Nearmap)

3. Development Proposal

Architectural plans drafted by *Baini Design* illustrate the proposal to demolish all existing structures and construct a child care centre at 110 - 112 Deccan Street, Goulburn. The development application seeks to cater for the following number of children and respective ages:

Table 1: Number of Children

Age	No. of Children
0 – 2 year olds	20
2 – 3 year olds	23
3+ year olds	50
TOTAL	93

The architectural plans indicate a two-storey childcare centre to be built over basement parking. The child care centre will require 15 staff members. Figure 2 presents the proposed car parking area for the child care centre, with the provision of 23 car spaces.

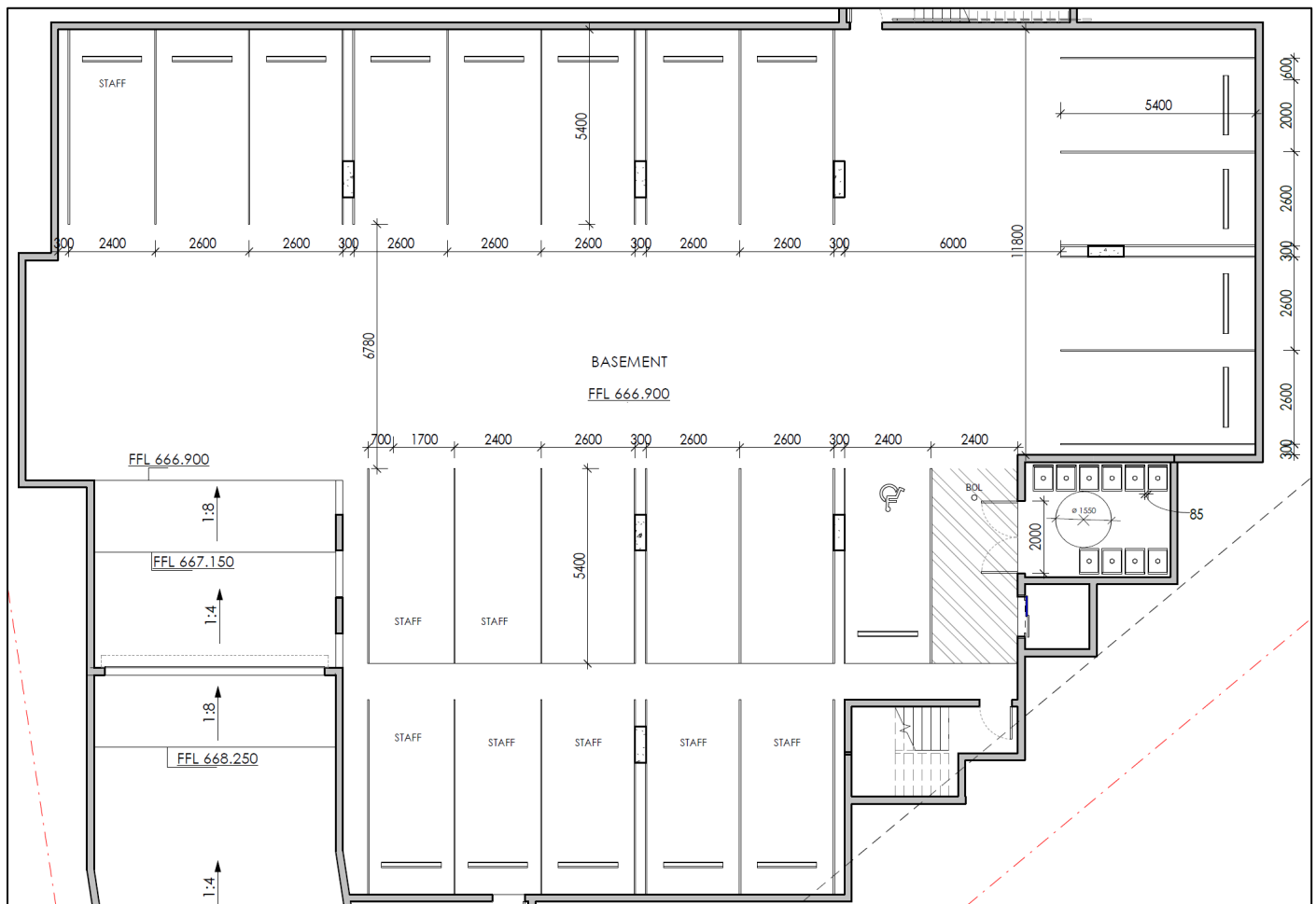


Figure 2: Proposed Car Parking Area at 110 - 112 Deccan Street, Goulburn

4. Car Parking Demands

4.1 Goulburn Mulwaree Development Control Plan 2009

Reference is made to *Goulburn Mulwaree Development Control Plan 2009* which provides parking rates for child care centres throughout the Goulburn Mulwaree Local Government Area:

- 1 space per 2 employees + set down/drop off area

The following table summarises the parking requirement and the provision that the development is proposing:

Table 2: Parking Rates

Requirement	Parking Rate	Number of	Spaces Required	Spaces Provided
Visitors	Set Down/Drop Off Area	93	Set Down/Drop Off	15
Employees	1 space per 2 employees	15	8	8

Based on the proposed land use, the minimum required parking spaces for the development is 8 car spaces plus a set down/drop off area. The proposed development will provide 23 car spaces, with the following breakdown of car spaces:

- 8 staff parking spaces
- 15 set down/drop off spaces

It is deemed that the proposed parking provision complies with Goulburn Mulwaree's minimum parking requirements.

4.2 NSW Department of Planning and Environment Child Care Planning Guideline 2021

Reference is made to *NSW Department of Planning and Environment Child Care Planning Guideline 2021* which provides parking rates for child care centres throughout the state of New South Wales:

- 1 space per 4 children

The following table summarises the parking requirement and the provision that the development is proposing:

Table 3: Parking Rates

Requirement	Parking Rate	Number of	Spaces Required	Spaces Provided
Children	1 space per 4 children	93	23	23

Based on the proposed land use, the minimum required parking spaces for the development is 23 car spaces. The proposed development will provide 23 car spaces, therefore complying with the *NSW Department of Planning and Environment Child Care Planning Guideline 2021* minimum parking requirements.

5. Bicycle Facilities

With no bicycle parking rates provided within the *Goulburn Mulwaree Development Control Plan 2009*, reference is made to the *Austroads Guide to Traffic Management* which provides rates for the provision of bicycle spaces for educational facilities:

- 30% bicycle mode share parking rate

With the provision of 23 car spaces, a minimum of 7 bicycle spaces are required to meet the recommendations of the *Austroads Guide to Traffic Management*.

Architectural plans drafted by *Baini Design* indicate the provision of 8 bicycle spaces at the entrance to the child care centre.

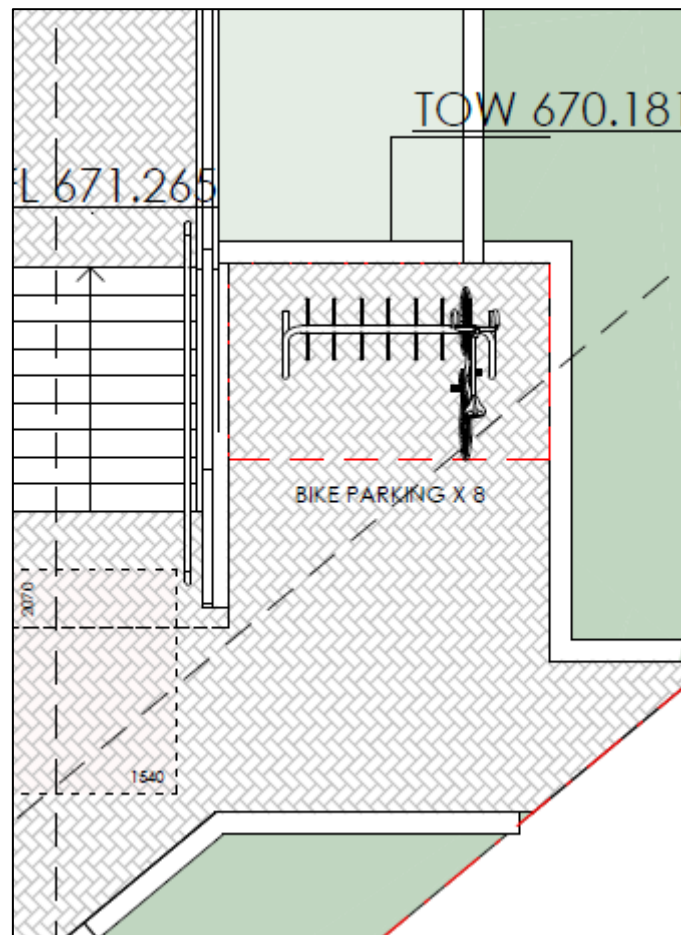


Figure 3: Proposed Bicycle Parking Area at 110 - 112 Deccan Street, Goulburn

The provision of 8 bicycle spaces is deemed acceptable when assessed against the requirements of the *Austroads Guide to Traffic Management*, which will encourage staff and parents to travel to the premises through the means of active transportation.

6. Servicing Facilities

Due to the ongoing need to restock the proposed child care centre, there will be a need for deliveries to be made to the child care centre throughout the week. It is anticipated that all deliveries to the centre would be assumed to be outside the peak drop off/pick up times (7:00am – 9:00am, 4:00pm – 6:00pm). A small van would be able to utilise the plentiful supply of visitor car spaces within the basement that would be vacant outside of peak hour times in order to make deliveries to the child care centre. The deliveries would be anticipated to be infrequent and would be managed under a plan of management that would be created for the child care centre.

Anticipated private waste collection services would be conducted on Clifford Street, utilising the kerb directly out the front of the site. This would match the current arrangement of pick up and drop off that is used for the existing residential dwelling.

7. Surrounding Road Network

7.1 Deccan Street

Deccan Street is a collector road with one lane of traffic permissible each way providing access from Addison Street to the intersection of Goldsmith Street/Fitzroy Street/Mount Street. The speed limit is signposted as 40km/hr between 8:00am – 9:30am & 2:30pm – 4:00pm on School Days, with a speed limit of 50km/hr outside of the abovementioned hours. Unrestricted parking is permissible on both sides of the road. The width of the carriageway is a minimum of 19.5 metres.

7.2 Clifford Street

Clifford Street is a local road with one lane of traffic permissible each way providing access from View Street to Deccan Street. The speed limit is signposted as 50km/hr. Unrestricted parking is permissible on both sides of the road. The width of the carriageway is a minimum of 9 metres.

8. Traffic Generation

Reference is made to *RTA Guide to Traffic Generating Developments 2002* which provides expected traffic rates that will be generated from a long-day care centre:

- 0.8 peak vehicle trips/child (7am – 9am)
- 0.7 peak vehicle trips/child (4pm – 6pm)

Based on the proposed maximum care of 93 children, the proposed development is expected to generate 74 peak vehicle trips in the morning (37 vehicles entering, 37 vehicles exiting) and 65 peak vehicle trips in the afternoon (32 vehicles entering, 33 vehicles exiting).

Vehicles travelling from the North are expected to utilise Fitzroy Street, vehicles from the South/West are expected to utilise Deccan Street, whilst vehicles from the East are expected to utilise Clifford Street. For vehicles exiting the site, vehicles will either turn left onto Clifford Street to travel North/East or turn right onto Clifford Street to travel South/West. Therefore, it is anticipated that the spread of trips will be evenly distributed in all directions.

The development may result in a minor increase in peak hour flows along Deccan Street & Clifford Street, however it is deemed that the additional traffic movements will not hinder the traffic flows of the street with sufficient capacity currently available. The increase in traffic flow in the locality are mostly deemed to be pre-existing diverted trips with residual new trips not hindering the capacity of the local road network and therefore the traffic demands of the proposed development are deemed to have a minor impact and are deemed to be acceptable.

9. Impact of Development Proposal

The proposed development will not pose an impact to the local traffic. Deccan Street & Clifford Street will comfortably be able to absorb the additional 37 vehicles expected to be generated with vehicles utilising Clifford Street to enter the premises, whilst exiting vehicles will have the option to either turn left or right to travel in all directions from the centre to continue their journey towards all directions.

It is concluded that existing traffic on Deccan Street dropping children off at Wollondilly Public School, would be utilising the proposed childcare centre, alongside parents that are currently traveling along Deccan Street for work on-route to the Goulburn Town Centre on an existing daily basis. The current traffic flows in the area are deemed to be free flowing with spare capacity ensuring there is no queuing of traffic. Deccan Street and surrounding streets will be able to comfortably take on the low increase in vehicular movements and the proposed use will not unfavourably impact the flow of traffic. Parents in surrounding streets will have the ability and option to safely walk to the child care centre, thereby removing the need to utilise private vehicle transportation due to the suburban nature of the site, with no commercial/industrial uses in the area, combined with the good pedestrian connectivity of the site from other parts of Goulburn. Additionally, the provision of 8 bicycle spaces within the property boundaries will encourage staff and parents to travel to the premises through the means of active transportation.

The perceived increase in traffic flow due to the proposed child care centre in the locality are mostly deemed to be pre-existing diverted trips with residual new trips not hindering the capacity of the local road network. Traffic demands of the proposed development are deemed to have a minor impact and deemed acceptable. It can also be concluded that residents in the surrounding streets would utilise the proposed child care centre, rather than trips commencing from outside the local traffic area. There will be no impact to on-street parking on Deccan Street or Clifford Street, as the proposal provides sufficient car parking spaces in the proposed basement in accordance with *Goulburn Mulwaree Development Control Plan 2009* and the *NSW Department of Planning and Environment Child Care Planning Guideline 2021*.

10. Compliance with AS2890

10.1 Access to Basement

Access to the parking areas is proposed via a 6.7 metre wide (at the property boundary) access ramp, providing access from Deccan Street into the basement that houses 23 car spaces. The

access ramp maintains a minimum 6.7 metre width throughout until reaching the basement floor. Therefore, it is deemed that the width of the proposed access ramp into the basement complies with AS2890.1.

10.2 Parking Spaces

As per Table 1.1 of AS2890.1, the User Class of the proposed visitor car spaces are deemed to be 3 (short term visitor parking). The minimum requirements for the visitor parking areas as stipulated by AS2890 are as follows:

- 90 degree parking spaces are to be a minimum 2.6m wide and 5.4m in length
- Aisle width is to be a minimum 5.8m wide
- Accessible parking spaces are to be a minimum 2.4m wide and 5.4m in length with an adjacent shared zone with identical measurements provided

The parking area proposed for visitors for 110 – 112 Deccan Street, Goulburn possesses the following characteristics:

- Parking spaces are a minimum 2.6m wide x 5.4m in length
- Minimum aisle width of 5.8m is achieved
- All car spaces allow for vehicles to enter and exit the property in a forward direction (see Section 10.3 for swept path analysis of B99 vehicles utilising selected car spaces)
- An accessible car space has been provided in the basement, with minimum dimensions of 2.4m x 5.4m in length with an adjacent shared zone with identical measurements

As per Table 1.1 of AS2890.1, the User Class of the proposed staff car spaces are deemed to be 1A (employee parking). The minimum requirements for staff parking areas as stipulated by AS2890 are as follows:

- 90 degree parking spaces are to be a minimum 2.4m wide and 5.4m in length
- Aisle width is to be a minimum 5.8m wide
- 90 degree parking spaces that are adjacent to obstructions are to be increased by 300mm

The parking area proposed for staff for 110 – 112 Deccan Street, Goulburn possesses the following characteristics:

- Staff parking spaces are a minimum 2.4m wide x 5.4m in length
- The minimum aisle width of 5.8m is achieved
- All car spaces allow for vehicles to enter and exit the property in a forward direction (see below for swept path analysis of B85 vehicles utilising selected car spaces)

10.3 Swept Path Analysis

Swept path analysis has been undertaken utilising B99 & B85 vehicle templates, as set by AS2890.1, to ensure that vehicle movements in the parking areas will be acceptable. The

presented swept paths showcase that movements into and out of car spaces in the parking areas are acceptable and to provide sufficient justification that all parking areas comply with AS2890.1:

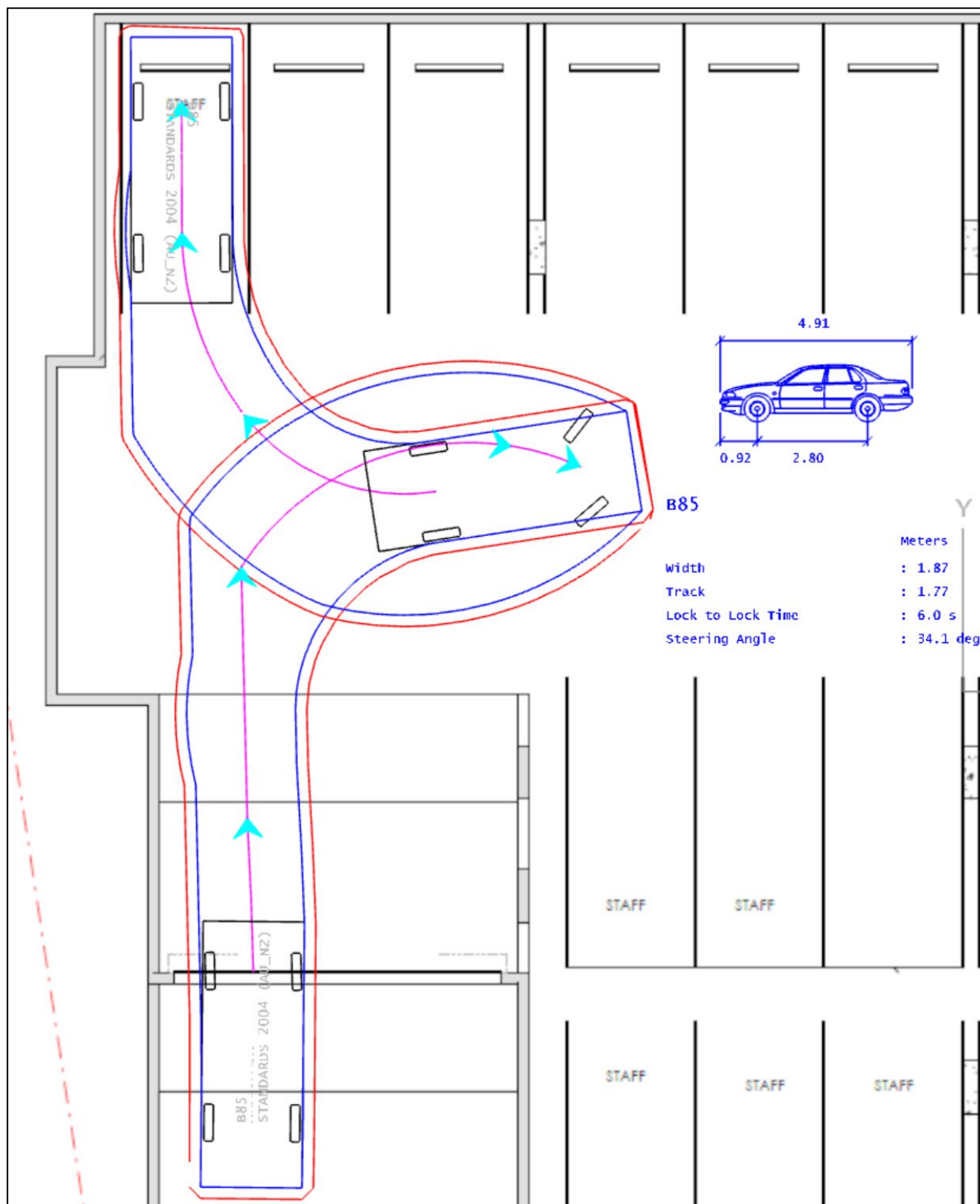


Figure 4: B99 Vehicle Entry into Staff Car Space

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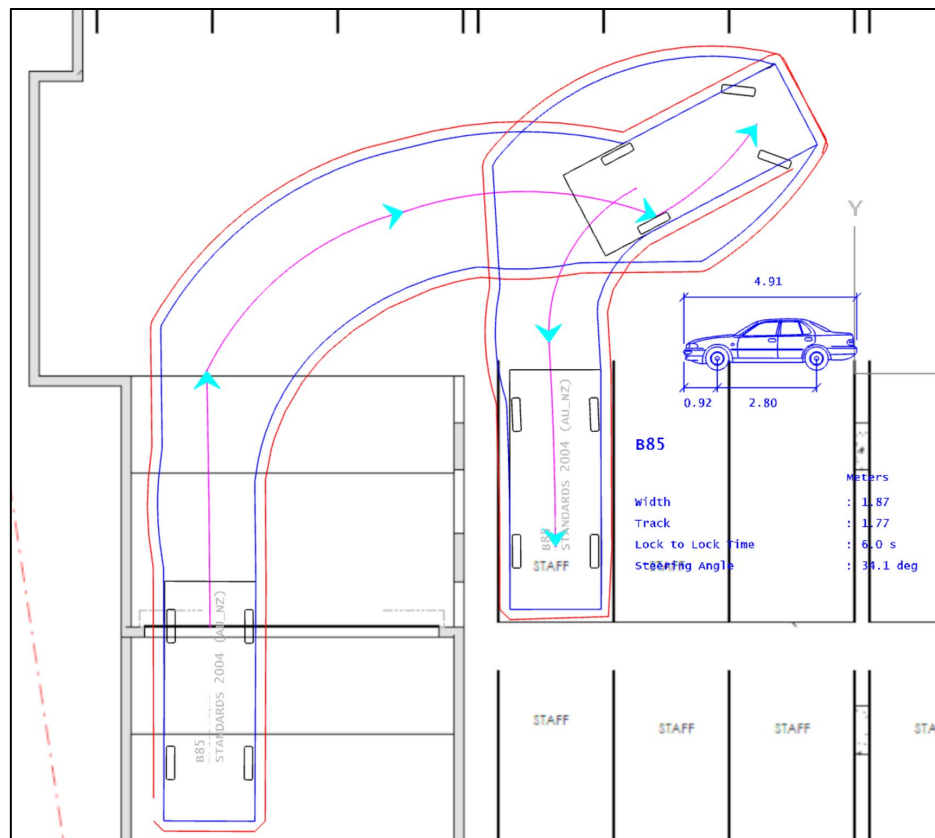


Figure 6: B99 Vehicle Entry into Staff Car Space

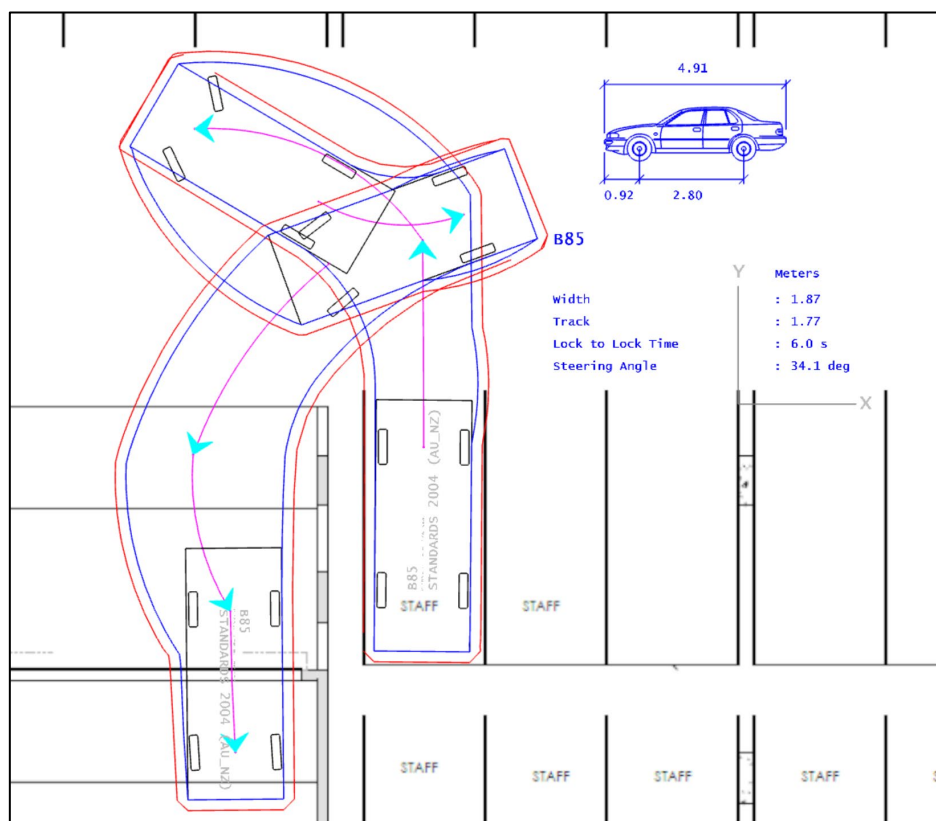


Figure 7: B99 Vehicle Exit out of Staff Car Space

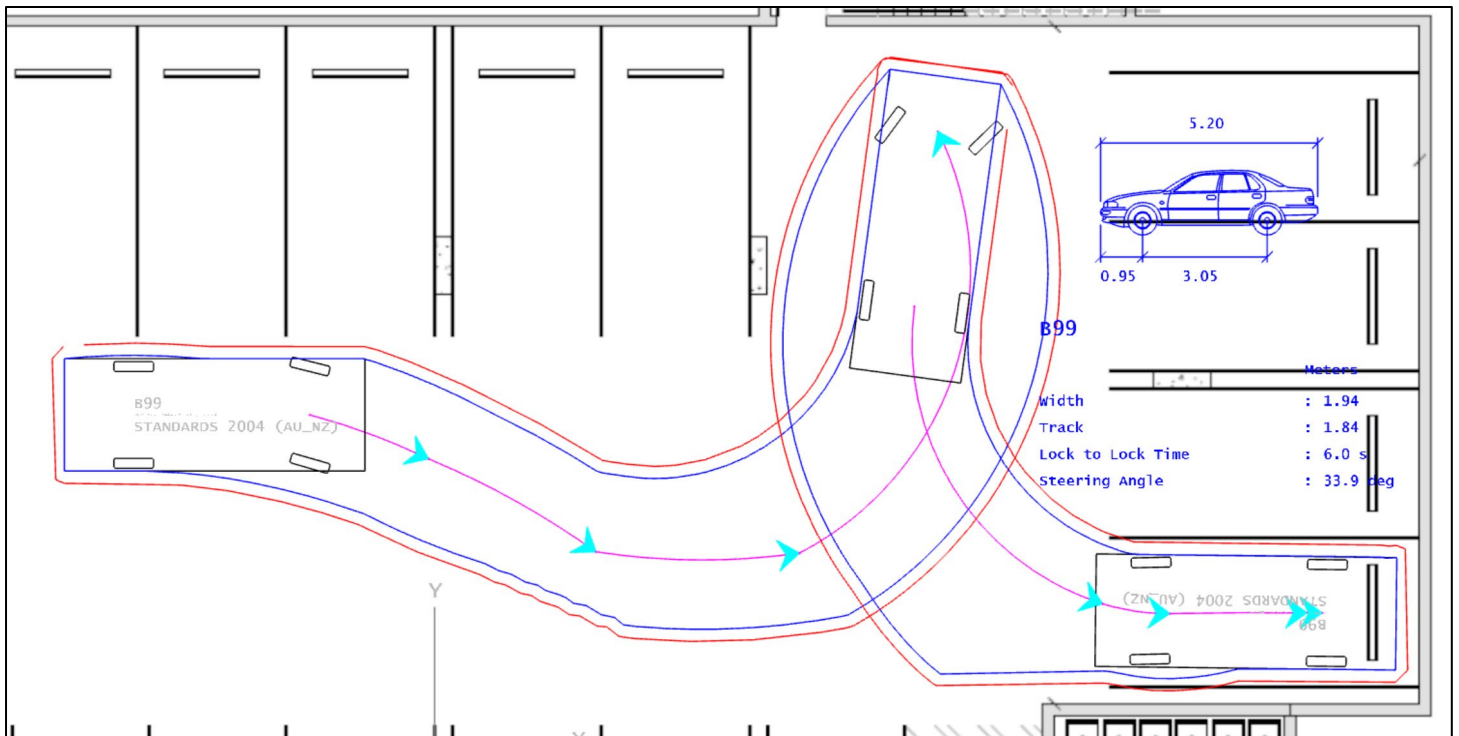


Figure 8: B99 Vehicle Entry into Visitor Car Space

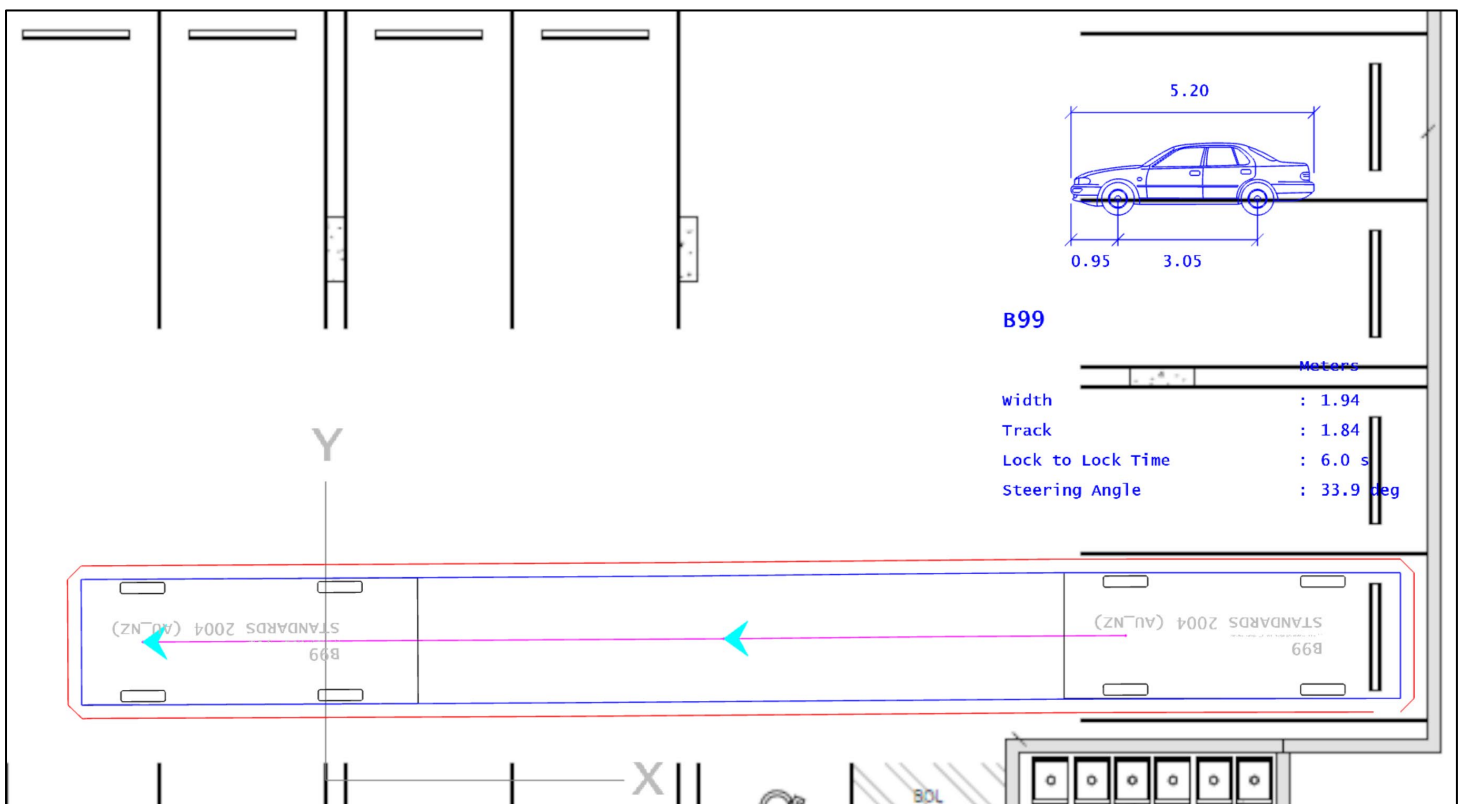


Figure 9: B99 Vehicle Exit out of Visitor Car Space

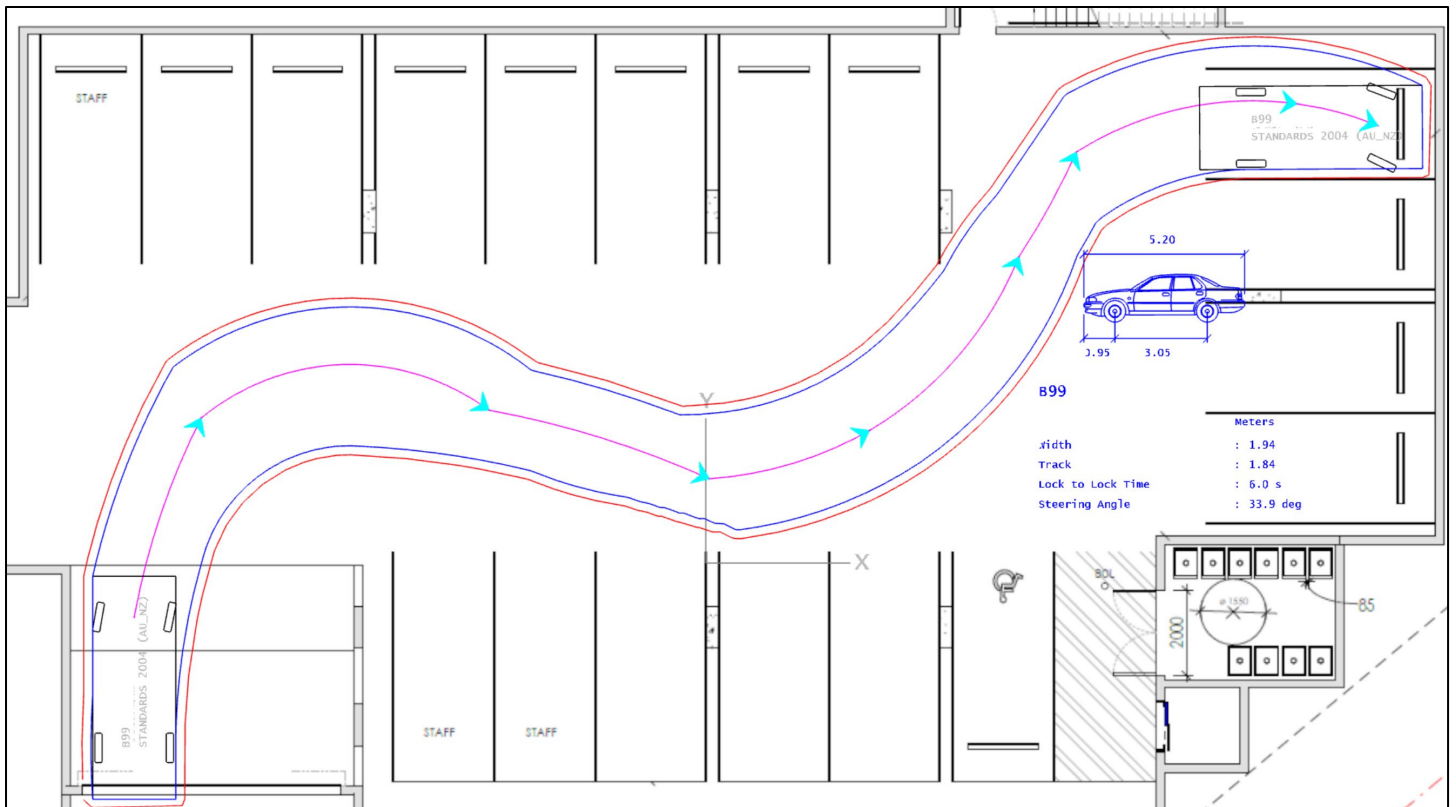


Figure 10: B99 Vehicle Entry into Visitor Car Space

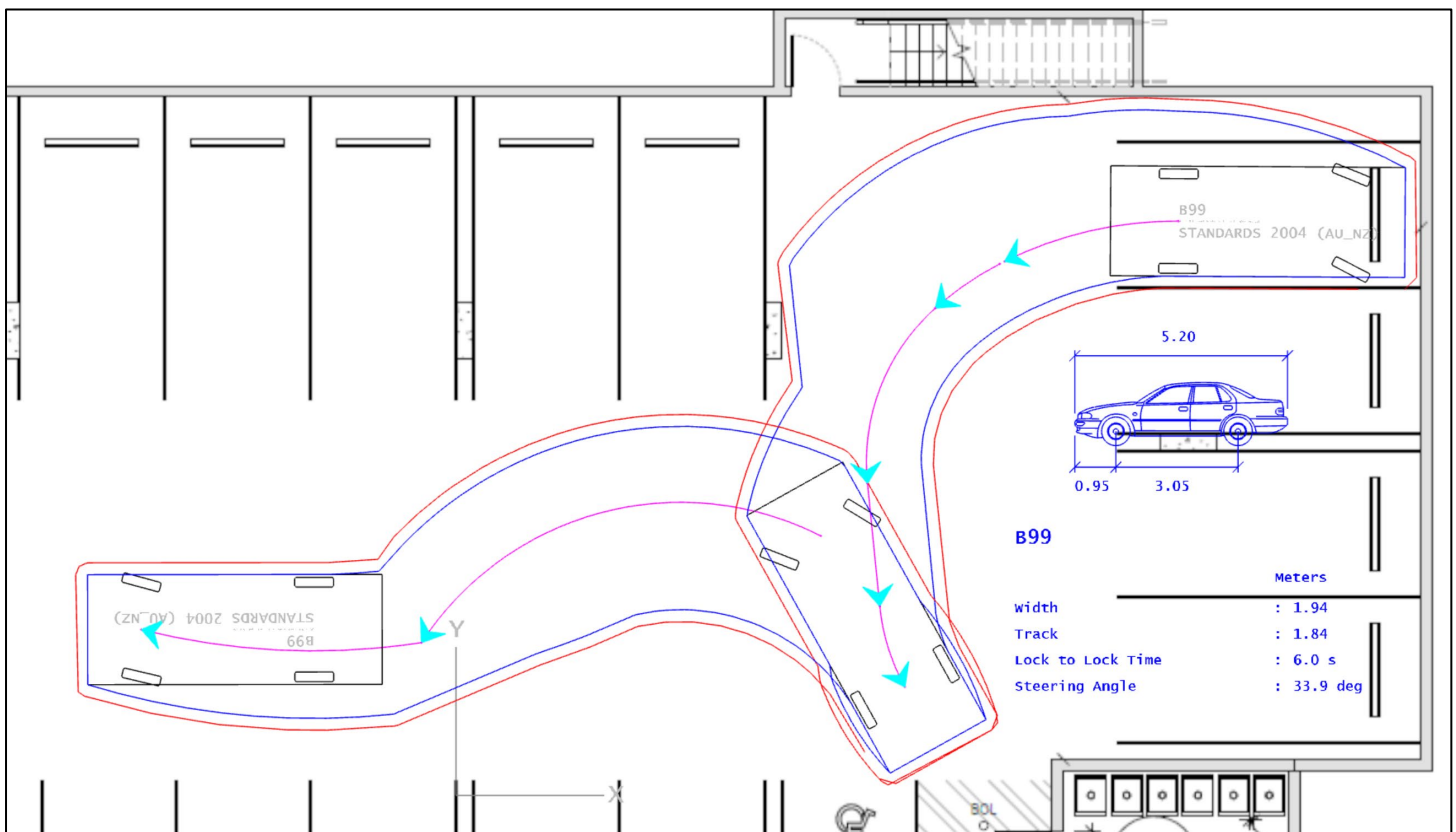


Figure 11: B99 Vehicle Exit out of Visitor Car Space

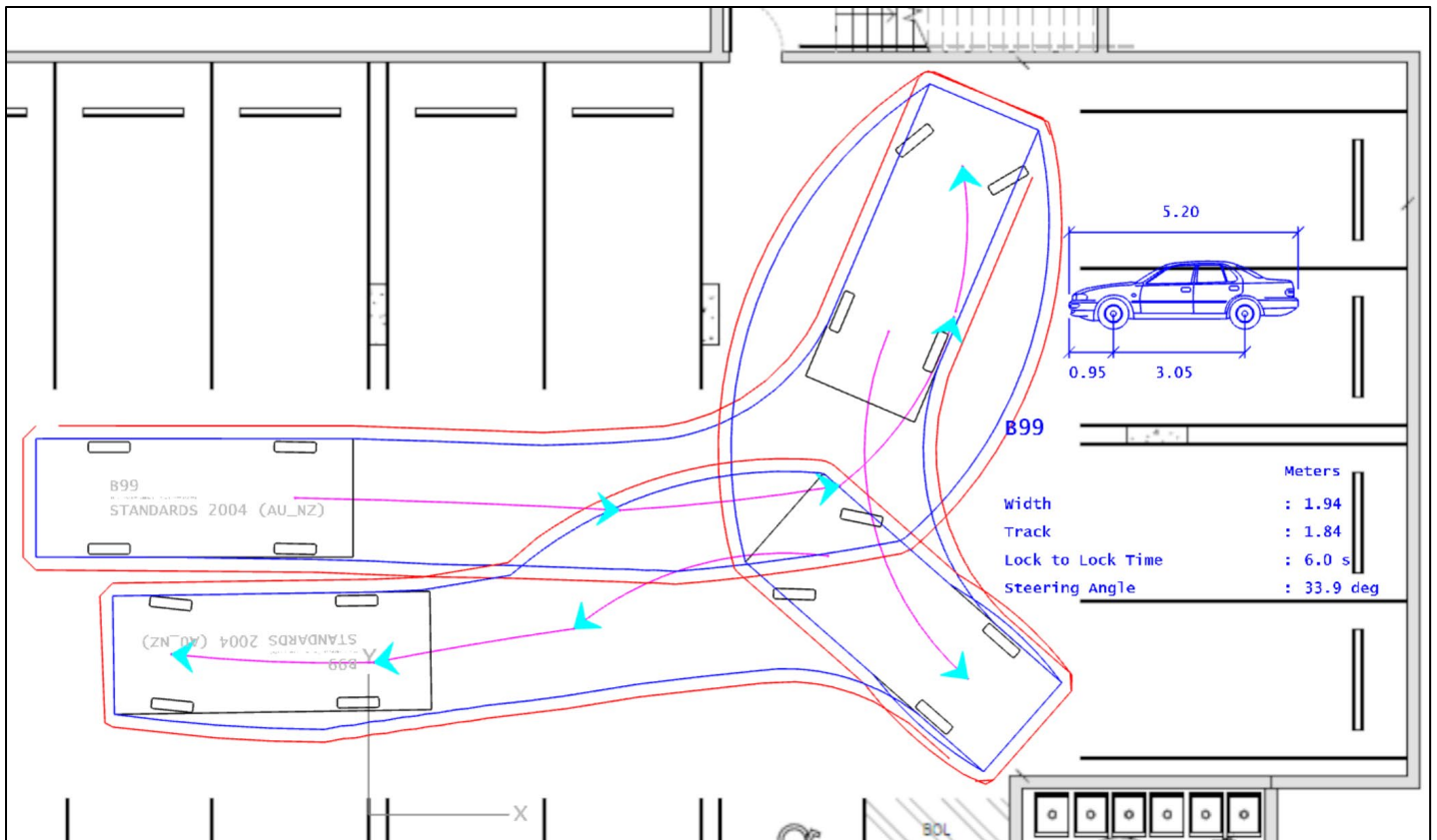


Figure 12: B99 Vehicle Entering & Exiting Basement in a Forward Direction

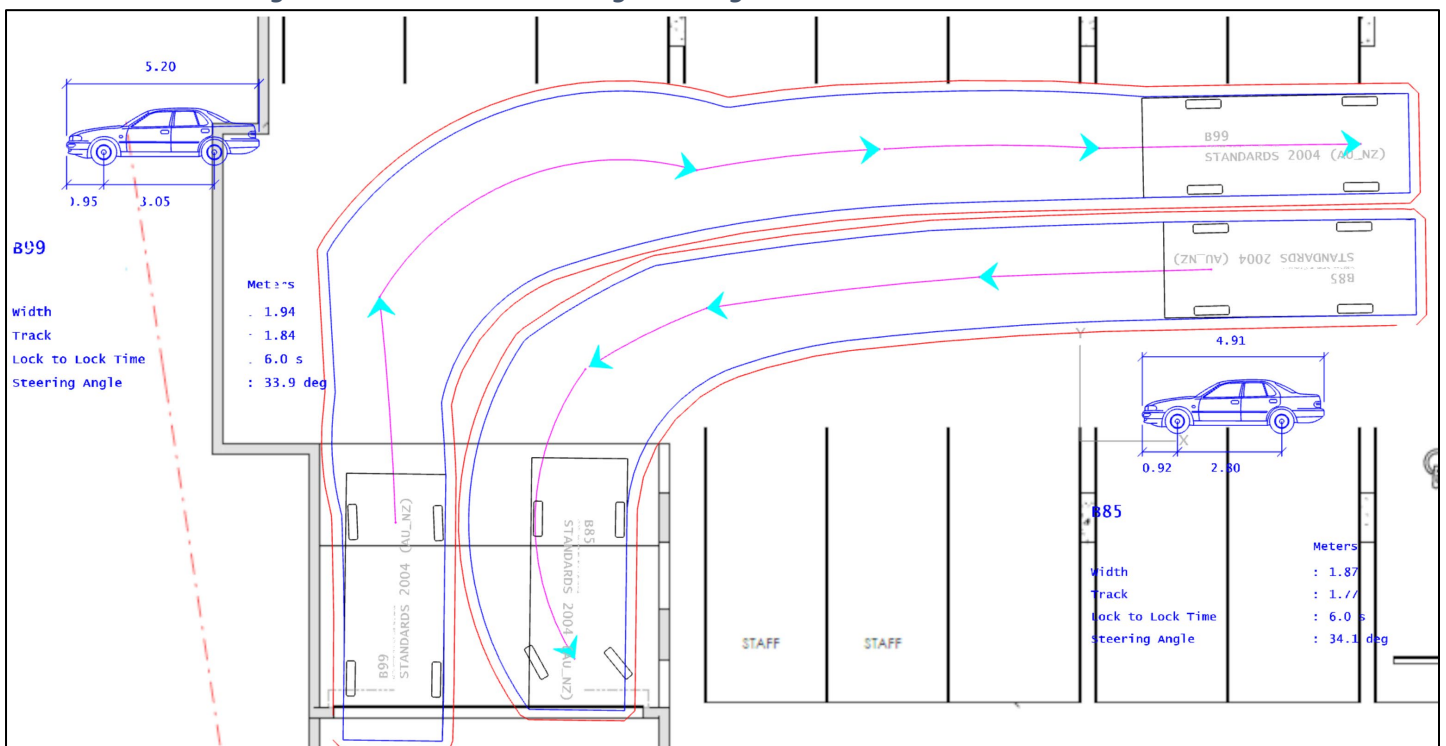


Figure 13: B99 Vehicle & B85 Vehicle Simultaneously Entering/Exiting Basement

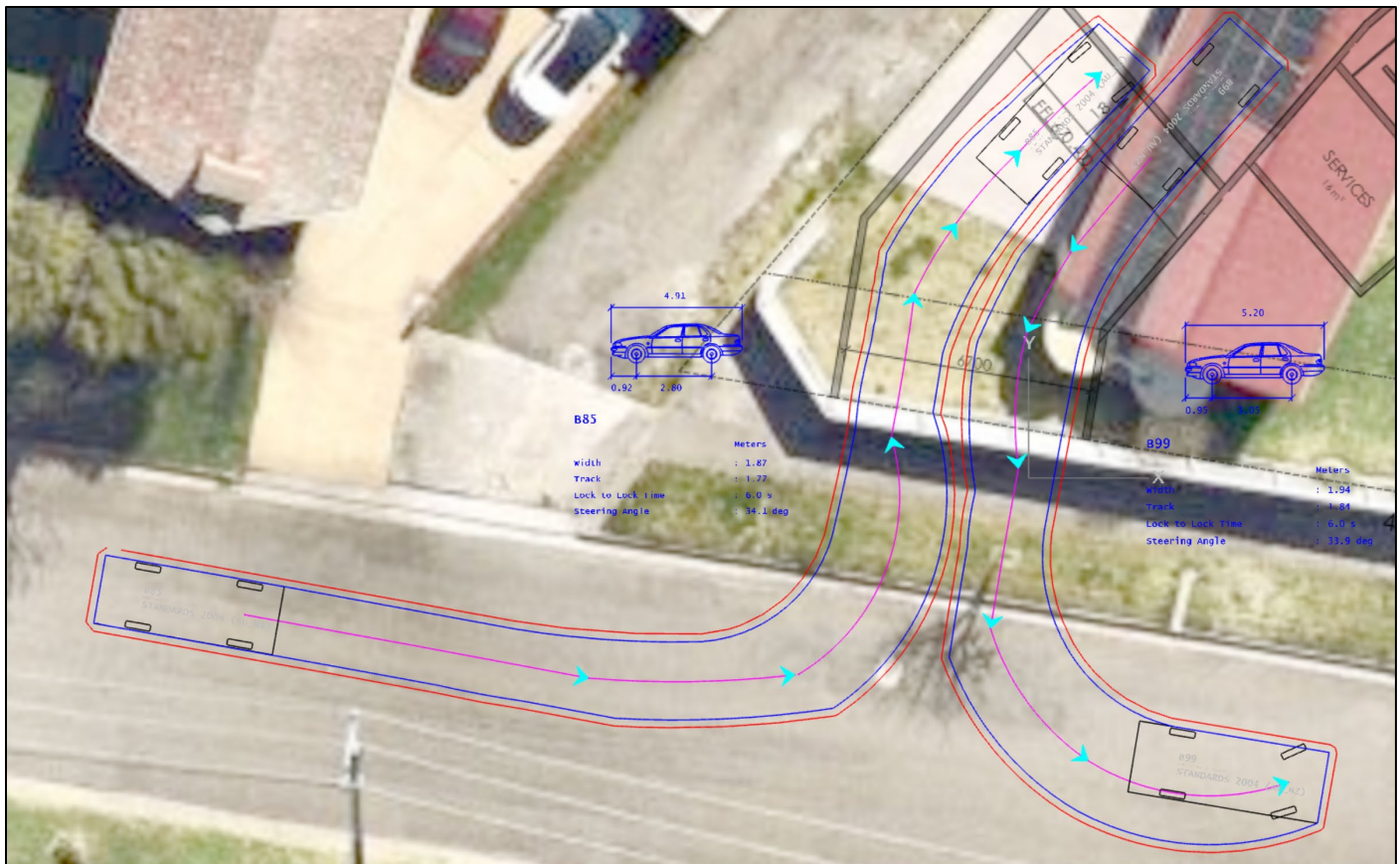


Figure 14: B99 Vehicle & B85 Vehicle Simultaneously Entering/Exiting Property

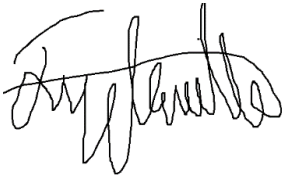
11. Sight Distance

Figure 3.3 of AS2890.1 presents minimum sight lines for pedestrian safety. For compliance there is to be a 2.5m x 2.0m sight triangle at the property boundary which is to be clear of obstructions to visibility. Figure 3.2 states that when checking sight distances, the driver's eye height and the height of the object are to be taken as 1.15m above the road surface. With reference to the architectural drawings provided by *Baini Design*, minimum sight distances will be met on Clifford Street, with no permanent obstructions limiting sight distances within the designated site triangle at the property boundaries at a height of 1.15m.

12. Conclusion

A traffic and parking assessment has been undertaken to support a development application for a proposed child care centre located at 110 – 112 Deccan Street, Goulburn. Reference has been made to the *Goulburn Mulwaree Development Control Plan 2009*, *NSW Department of Planning and Environment Child Care Planning Guideline 2021*, *Austroads Guide to Traffic Management*, the *RTA Guide to Traffic Generating Developments 2002*, and *AS2890.1:2004 Parking – Off Street Car Parking* to ensure compliance. The traffic and parking assessment has concluded that the proposed development will pose no impact to the local area regarding parking and traffic, with an adequate provision of parking spaces, and that all parking areas comply with the relevant

Australian Standards. Therefore, the proposal can be supported by Goulburn Mulwaree Council from a traffic perspective.



Joshua Glanville

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Date: 07/11/2024