



1 Tracey Avenue, Carlingford Childcare Centre Traffic Impact Assessment

Prepared for:

DBG

5 July 2023

The Transport Planning Partnership

1 Tracey Avenue, Carlingford Childcare Centre Traffic Impact Assessment

Client: DBG

Version: V02

Date: 5 July 2023

TTPP Reference: 22532

Quality Record

Version	Date	Prepared by	Reviewed by	Approved by	Signature
V01	30/05/2023	Hang Tran Paul Cai	Oasika Faiz	Ken Hollyoak	Draft
V02	05/07/2023	Hang Tran Paul Cai	Oasika Faiz	Ken Hollyoak	

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APPENDICES

- A. ARCHITECTURAL PLANS
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1 Introduction

This traffic impact assessment (TIA) report relates to a proposed childcare centre at 1 Tracey Avenue, Carlingford.

The proposed development involves demolition of existing dwelling and construction of a childcare centre with basement parking at 1 Tracey Avenue, Carlingford. The proposed childcare centre will accommodate 74 children between 0 and 6 years of age and provide 19 car spaces (including one accessible space) for staff and visitors.

A development application (DA) is to be prepared for lodgement with City of Parramatta Council (Council) seeking approval for the proposed development.

The Transport Planning Partnership (TPPP) has been commissioned by DBG to prepare this traffic impact assessment report to accompany the development application.

This report has been prepared to assess the traffic and parking implications of the proposed development. The report is set out as follows:

- Chapter 2 discusses the existing conditions including description of the site
- Chapter 3 presents a brief description of the proposed development
- Chapter 4 assesses the proposed on-site parking provision and car park layout
- Chapter 5 examines the traffic generation and its impact, if any, and
- Chapter 6 presents the conclusions of the assessment.

2 Site Description

2.1 Site Description

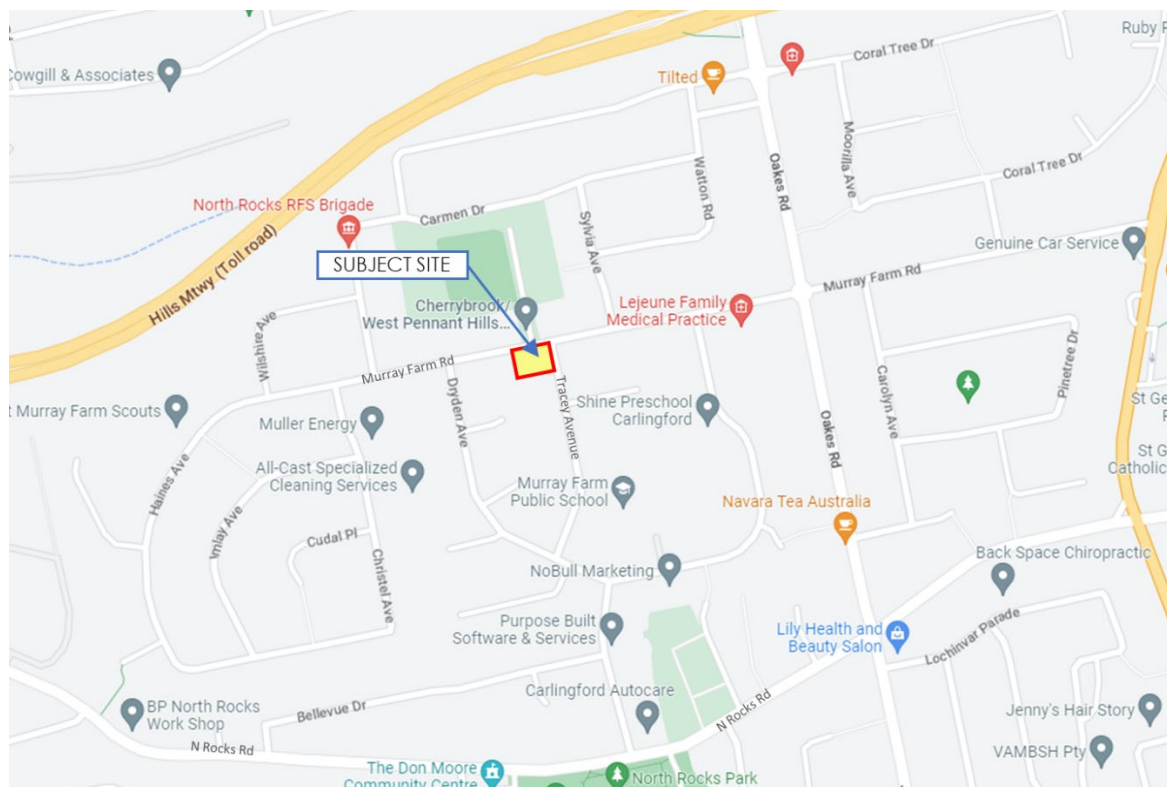
The subject site is located at 1 Tracey Avenue, Carlingford and is within the City of Parramatta Council local government area (previously under the Hills Shire Council). The property description of the site is lot 26 DP225990.

The site is currently occupied by a single residential dwelling and has road frontages to Tracey Avenue and Murray Farm Road. The surrounding land uses of the site comprise of low-density residential dwellings. A recreational park, Murray Farm Reserve, is located directly north of the site. Murray Farm Public School is approximately 200m south of the proposed childcare centre.

The location of the subject site is presented in Figure 2.1

The site has existing driveways off Tracey Avenue and Murray Farm Road.

Figure 2.1: Locality Plan



Map Source: Google Maps Australia

2.2 Road Network

Tracey Avenue:

- is a two-way local road with a north-south configuration. This road has a speed limit of 50km/h and a school zone speed limit of 40 between 8 – 9:30AM and 2:30-4 PM school days. The school zone starts from the intersection of Tracey Avenue – Philip Place and end at the intersection of Tracey Avenue – Dryden Avenue.
- No stopping between 8-9 AM and 2:30-3:30 PM during school days is installed along western side of the road and along the frontage of No. 68 Murray Farm Road.
- A drop-off/pick-up zone (No Parking) is provided in front of the school on the eastern side of Tracey Avenue between 8-9AM and 2:30-3:30 PM during school days.
- A school bus zone (8-9 AM and 2:30-3:30 PM, school days) is installed on the eastern side of Tracey Avenue in front of the Murray Farm Public School.

Murray Farm Road:

- is a two-lane two-way local road with an east-west configuration. The road has a posted speed limit of 50km/h.
- Raised pedestrian crossing is provided on Murray Farm Road adjacent to the east of the intersection with Tracey Avenue.

Philip Place:

- is a local cul-de-sac road connecting with Tracey Avenue and provide access to local properties. Unrestricted parking is provided on both sides of this road.

Dryden Avenue:

- is an two-way local road with a posted speed limit of 50km/h. This road connects Murray Farm Road with Tracey Avenue.

2.3 Public Transport

2.3.1 Buses

School buses: There are two school bus stops located south of Tracey Avenue providing access to and from Murray Public School. Existing bus routes that service these stops are 3145, 3532, 3624, 605W and 734W.

Public buses:

- The nearest public bus stop to the site is located on Oakes Road near the intersection with Murray Farm Road. This stop approximately 450m (6 minute walk) to the site and bus 553 services this stop.
- M2 Motorway Oakes Road bus stop is located approximately 800m walking distance from the site. Bus services at this stop provide connection to Epping, Sydney CBD, North Sydney, Macquarie Park, Blacktown, Bella Vista and Kellyville.

Figure 2.2 below shows the proximity of the public transport locations relative to the site.

Figure 2.2: Public Transport Stop Locations



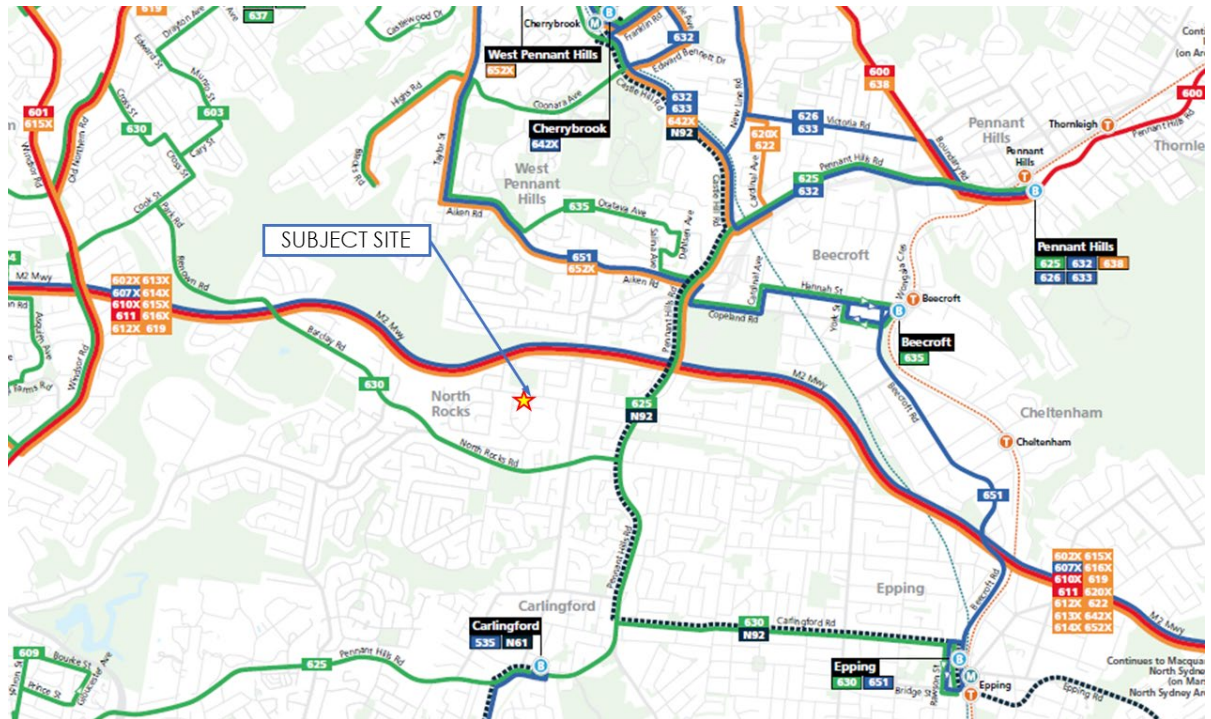
Table 2.1 below presents a summary of the bus services in the vicinity of the site.

Table 2.1: Public Transport Services

Route No.	Route Description	Typical Weekday Frequency	
		Peak	Off-Peak
553	Beecroft to North Rocks	Every hour	None
549	Parramatta to Epping via North Rocks	Every 30-40 minutes	Every hour
611	Blacktown to Macquarie Park (Via M2 Motorway)	Every 5-15 minutes	Every 15-30 minutes
602X	Bella Vista Station to North Sydney	Express Services AM services towards the City only: Every 10 minutes PM services from the City only: Every 5-10 minutes	
607X	Bella Vista Station to City QVB		
610X	Castle Hill to City QVB		
612X	Castle Hill to North Sydney		
613X	Bella Vista to City QVB		
614X	Crestwood Reserve to City QVBs		
615X	North Kellyville Ridge to City QVBs		
616X	Kellyville Ridge to City QVBs		
619	Macquarie Park to Castle Hill via M2 Motorway & Baulkham Hills	Every 17-20 minutes	None

Source: Transport for NSW

Figure 2.3: Existing Bus Network



Source: Transport for NSW

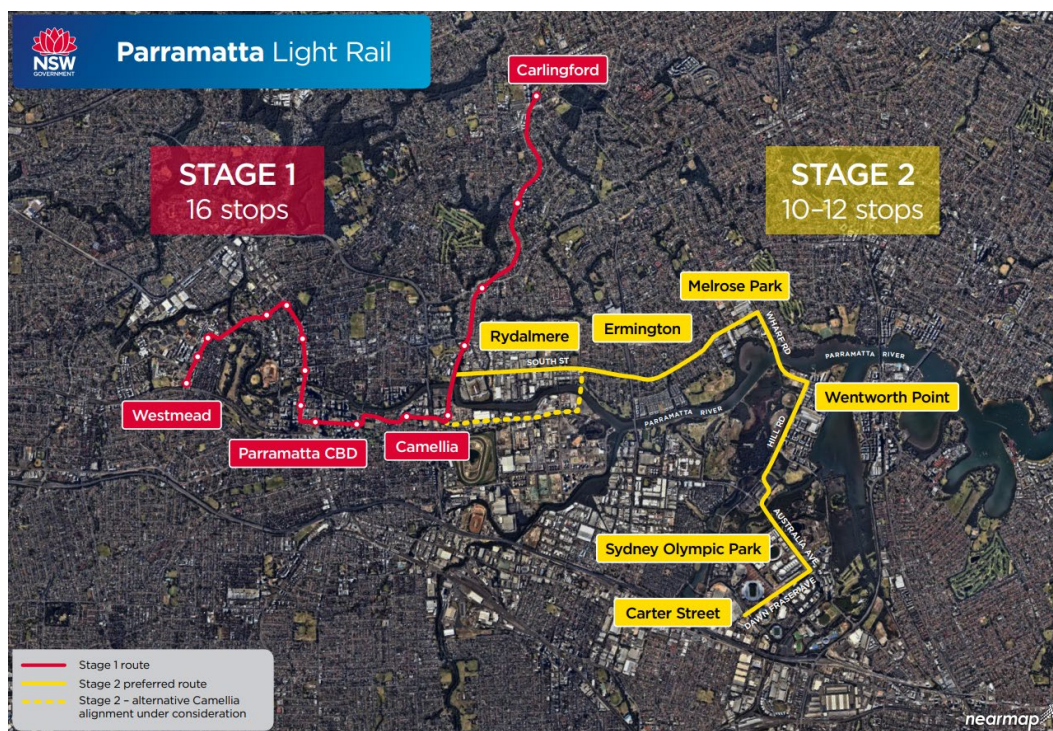
2.3.2 Parramatta Light Rail

The Parramatta Light Rail is a major public transport infrastructure project to provide high frequency light rail services to Parramatta, Westmead, Carlingford, Melrose Park and Sydney Olympic Park. The Parramatta Light Rail project will be constructed in two stages.

Stage 1 will connect Westmead to Carlingford via Parramatta CBD and Camellia with 16 stops along the route. It is noted that Stage 1 major construction is currently underway and is expected to operate in 2023.

Stage 2 will further connect Parramatta CBD to Ermington, Melrose Park and Sydney Olympic Park. In October 2017, the NSW Government announced the preferred route for Stage 2 which will provide an additional 10-12 stops. Figure 2.4 shows the preferred routes for both Stages 1 and 2 of the future Parramatta Light Rail service.

Figure 2.4: Parramatta Light Rail Preferred Route



Source: NSW Government

The stage 1 route will connect Carlingford and Westmead via Parramatta CBD, passing through major town centres and universities. The Carlingford station will be located about 2.2km from the site, with bus services on Pennant Hills Road providing connection between the light rail station and the bus stop at the intersection of Pennant Hills Road and Murray Farm Road.

2.4 Pedestrian and Cycling Infrastructure

Pedestrian Facilities

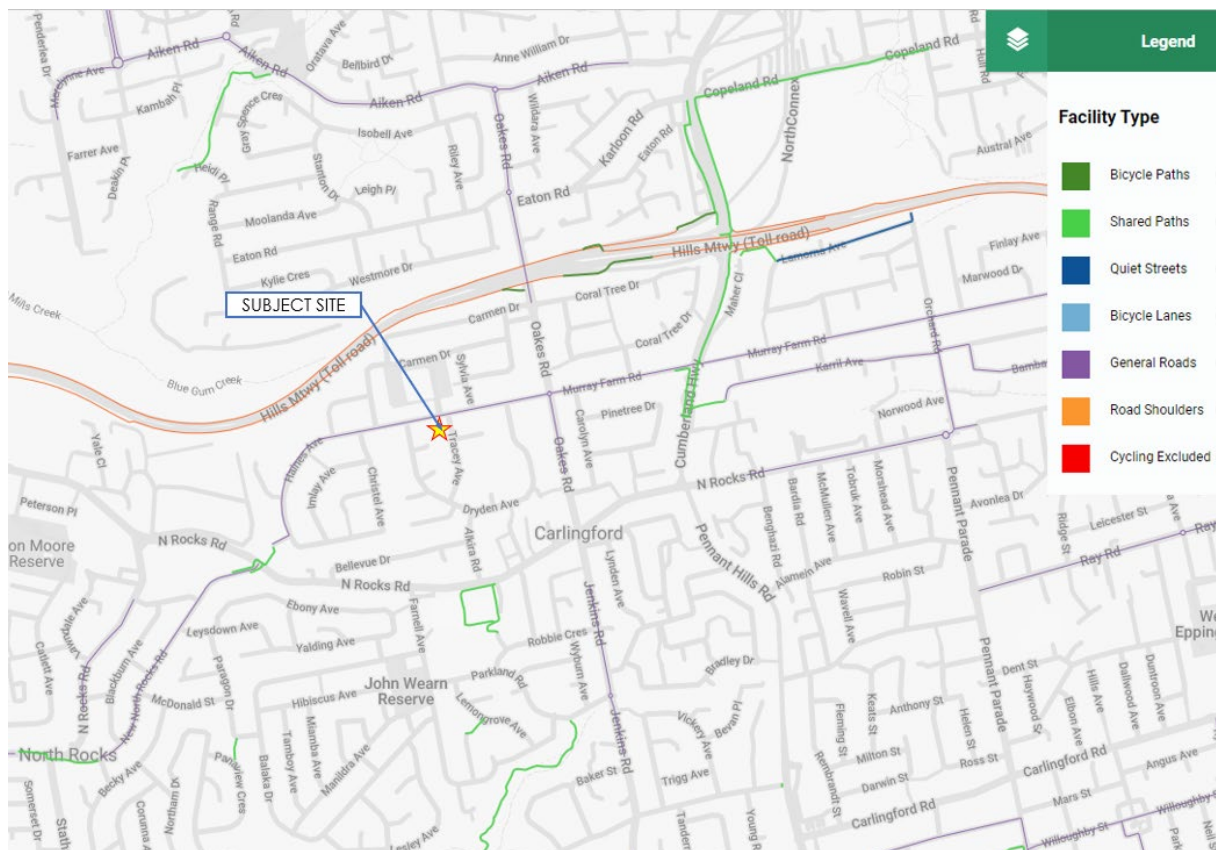
Paved footpaths along Murray Farm Road in front of the site provide good quality pedestrian access to surrounding areas. Raised Pedestrian crossing is provided on Murray Farm Road, approximately 20m east of the site.

Paved footpaths are also provided on the east side of Tracey Avenue.

Cycling facilities

The existing bicycle network within the surrounding area is shown in Figure 2.5

Figure 2.5: Existing Cycle Routes



Source: TfNSW Cycleway Finder

2.5 On-street Parking

A review was undertaken of on-street parking around the proposed development. The existing on-street parking controls are presented in Figure 2.6.

Figure 2.6: Existing On-street Parking Controls near the Site



A 'No Stopping' zone is applied on the western side of Tracey Avenue. On the eastern side of Tracey Avenue, parking restrictions include a 'Bus Zone' and 'No Parking zone' for school drop off/ pick up activities. All no stopping, no parking and bus zone restrictions are enforced during the hours of 8-9AM and 2:30-3:30PM on school days.

Remaining on-street parking in the surrounding area is generally unrestricted.

2.6 Existing On-street Parking Demand

On-street parking occupancy surveys have been conducted for the area shown in Figure 2.7, from 7:30AM to 9:00 AM and 2:30 PM to 6:00 PM on 8th February 2023 (Wednesday). The results are summarised in Table 2.2 and Table 2.3.

The survey data shows that parking demand on Tracey Avenue is strongly related to the drop-off and pick-up activities of Murray Farm Public School. The AM peak parking demand occurred between 8:40AM and 8:50AM with 72% of the permitted parking spaces were occupied. The PM peak parking demand occurred between 2:50PM and 3:00PM with 87% of the permitted parking spaces were occupied.

Murray Farm Road has low parking demand (less than 50% occupancy) most of the time except a short 10-minute period between 2:50PM and 3:00PM when Tracey Avenue was fully occupied.

It was observed that the parking demand of the streets near the site had decreased significantly after 3:00PM, once school pick up activities had been completed.

Figure 2.7: On-street Parking Survey Map



Table 2.2: On-street Parking Occupancy - AM

Area	Location	Parking Controls	Capacity	7:30	7:40	7:50	8:00	8:10	8:20	8:30	8:40	8:50	9:00
A	Murray Farm Road south (between Dryden Ave. and Tracey Ave.)	Unrestricted	16	2	2	2	3	3	3	3	6	7	3
B	Tracey Avenue west (between Murray Farm St and Philip Pl)	No Stopping (8-9am & 2.30-3.30pm School Days)	10	0	0	0	0	0	0	0	0	0	0
C1	Tracey Avenue east (between Murray Farm Rd and Philip Pl)	No Stopping (8-9am & 2.30-3.30pm School Days)	2	0	0	0	0	0	0	0	0	0	0
C2	Tracey Avenue east (between Murray Farm Rd and Philip Pl)	Unrestricted	7	0	0	0	0	2	4	7	7	6	5
D	Tracey Avenue west (between Philip Pl and Dryden Ave)	No Stopping (8-9am & 2.30-3.30pm School Days)	24	2	0	0	0	0	0	0	0	0	0
E1	Tracey Avenue east (between Philip Pl and Dryden Ave)	No Parking (8-9am & 2.30-3.30pm School Days)	12	0	1	2	0	3	6	6	7	6	4
E2	Tracey Avenue east (between Philip Pl and Dryden Ave)	Bus Zone (8-9am & 2.30-3.30pm School Days)	5	0	0	0	0	0	0	0	0	0	0
F	Philip Place north	unrestricted	14	4	4	4	7	8	11	12	14	12	10
G	Philip Place south	unrestricted	12	1	3	4	6	7	8	9	10	9	5
Unrestricted Parking			Total Vehicles Parked	49	7	9	10	16	20	26	31	37	34
			Number of Vacant Spaces	-	42	40	39	33	29	23	18	15	26

Table 2.3: On-street Parking Occupancy - PM

Area	Location	Parking Controls	Capacity	14:30	14:40	14:50	15:00	15:10	15:20	15:30	15:40	15:50	16:00	16:10	16:20	16:30	16:40	16:50	17:00	17:10	17:20	17:30	17:40	17:50	18:00
A	Murray Farm Road south (between Dryden Ave. and Tracey Ave.)	Unrestricted	16	2	6	9	12	2	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0
B	Tracey Avenue west (between Murray Farm St and Philip Pl)	No Stopping (8-9am & 2.30-3.30pm School Days)	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C1	Tracey Avenue east (between Murray Farm Rd and Philip Pl)	No Stopping (8-9am & 2.30-3.30pm School Days)	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2	Tracey Avenue east (between Murray Farm Rd and Philip Pl)	Unrestricted	7	6	7	7	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D	Tracey Avenue west (between Philip Pl and Dryden Ave)	No Stopping (8-9am & 2.30-3.30pm School Days)	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0

E1	Tracey Avenue east (between Philip Pl and Dryden Ave)	No Parking (8-9am & 2.30-3.30pm School Days)	12	8	9	12	12	2	1	0	0	0	0	0	0	0	0	0	1	2	0	1	1	0	0	0
E2	Tracey Avenue east (between Philip Pl and Dryden Ave)	Bus Zone (8-9am & 2.30-3.30pm School Days)	5	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F	Philip Place north	unrestricted	14	12	13	13	12	7	7	7	7	7	7	5	3	4	4	4	4	4	4	4	4	4	4	4
G	Philip Place south	unrestricted	12	10	11	12	10	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0
Unrestricted Parking			49	30	37	41	40	10	9	9	9	9	9	7	5	6	5	5	5	5	4	5	5	5	5	4
			-	19	12	8	9	39	40	40	40	40	40	42	44	43	44	44	44	44	45	44	44	44	44	45

3 Proposed Development

3.1 Development Description

The proposed development involves the demolition of the existing building and construction of a two-storey childcare centre at 1 Tracey Avenue, Carlingford. The proposed childcare will accommodate 74 children and 13 staff. A breakdown of the places and number of staff proposed is detailed in Table 3.1:

Table 3.1: Site Capacity

Year	No. of Children	No. of Staff
0 – 2 years old	24	6
2 – 3 years old	20	4
3 – 6 years old	30	3
Total	74	13

The expected hours of operation are from 7:00 AM to 6:00 PM.

A basement car park of 19 spaces will be provided for staff and visitor (pick-up/ drop-off) parking, as well as for service vehicle/courier parking. Allocation of the car spaces includes:

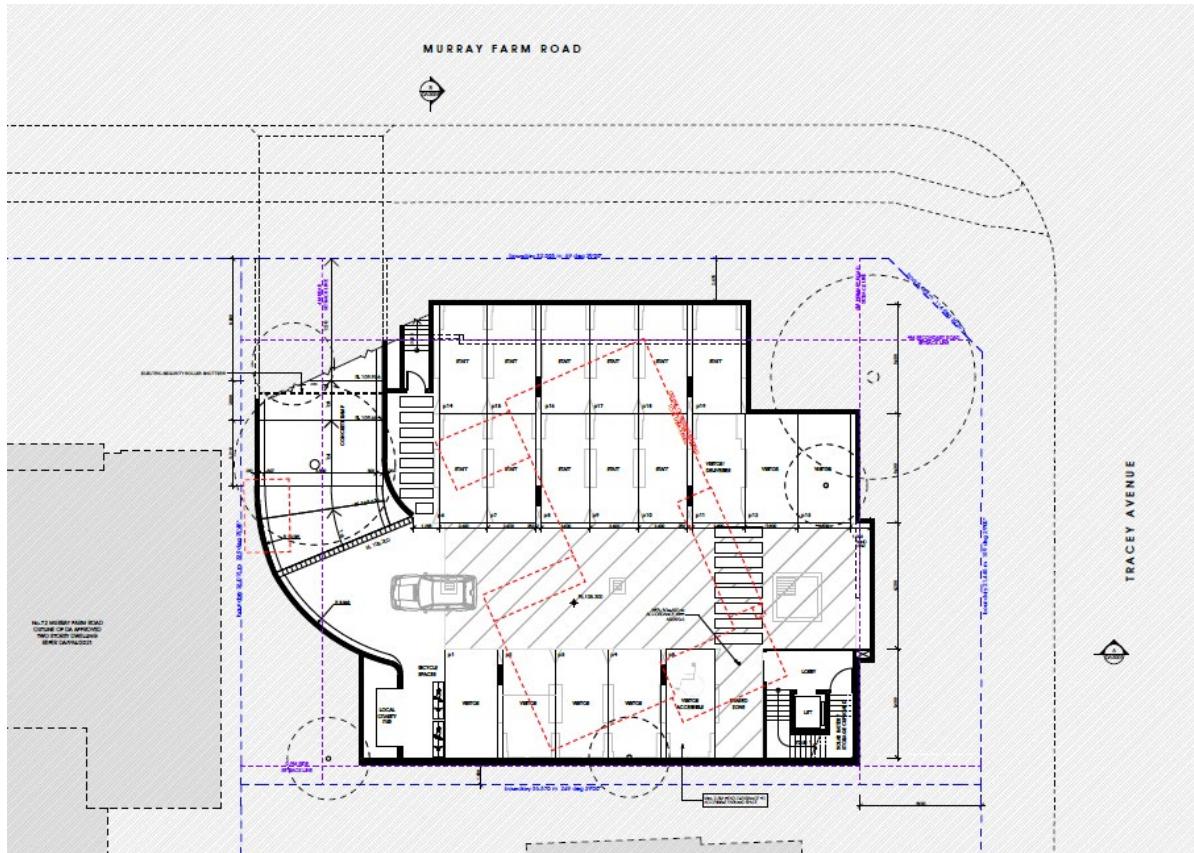
- 8 visitor spaces (including 1 accessible space), and
- 11 staff spaces (including 6 sets of tandem spaces).

3.2 Access and Layout

The proposed childcare centre will close the two existing driveways on Tracey Avenue and Murray Farm Road. A new two-way, 5.5m wide, driveway on Murray Farm Road, adjacent to the western boundary of the site, will be constructed.

The basement site layout is shown in Figure 3.1 and provided in Appendix A.

Figure 3.1: Basement site Layout



4 Parking Assessment

4.1 Car Parking Requirement

4.1.1 City of Parramatta Council Requirements

Car parking requirements for the site is currently under *The Hills Development Control Plan 2012* (Hills DCP).

The Hills DCP stipulates that car parking rate for a childcare centre should be 1 space per 6 children in attendances for parents and/or visitors, plus 1 space per employee.

An assessment of the site's car parking requirements based on the Hills DCP is presented in Table 4.1.

Table 4.1: Hills DCP Car Parking Requirements

Use	Yield	Parking Rates	Required	Provision
Staff	13	1 space per employee	13 spaces	11 spaces
visitor	74	6 spaces per children	13 spaces	8 spaces
	Total		26 spaces	19 spaces

The proposed development includes a provision of 19 spaces, which is a shortfall of 7 spaces compared to the Hills DCP requirement of 26 spaces.

However, the proposed parking provision and the impact is considered acceptable for the following reasons.

4.1.2 TfNSW Car Parking Requirement

For comparison, the parking requirement has been calculated based on the rates specified in RTA's (now TfNSW) *Guide to Traffic Generating Developments 2002* (Guide) and the more recent *Validation Trip Generation Surveys – Child Care Centre 2015* (Survey). The following parking rates have been sourced from the above documents:

- RTA Guide 2002: 1 space per 4 children
- TfNSW Survey 2015: 1 space per 6 children (for centres with 70 to 100 children).

The proposed development would require a total of 19 car parking spaces based on the Guide 2002 rate and 13 car parking spaces based on the TfNSW Survey 2015.

Table 4.2 provides a summary of the parking requirement using the different rates.

Table 4.2: Comparison of Car Parking Requirements

Size	Car Parking Rate			Car Parking Requirement		
	Council's DCP	RTA's Guide 2002	TfNSW Survey 2015	Council's DCP	RTA's Guide 2002	TfNSW Survey 2015
74 children + 13 staff	1 space per 6 children + 1 space per staff	1 space per 4 children	1 space per 6 children	26	18.5	12.3

Based on Table 4.2, the parking requirement using the DCP rates resulted in a highest provision being 7 spaces more than the RTA's Guide 2002 and 13 spaces greater than the more recent Survey in 2015.

The provision of car parking spaces complies with both RTA's Guide and TfNSW recent study.

4.1.3 Parramatta Draft Council DCP

Parramatta City Council has been developing its city wide DCP, since its amalgamation with several adjoining council areas. A draft of this DCP has been released for public exhibition on March 2023, which indicates a proposed parking rate of 1 space per 4 children for childcare. This is in line with the RTA Guide 2002 requirements.

4.1.4 Parking Adequacy

Based on above assessment and the on-street parking survey results, the parking provision of the proposed development is considered acceptable and satisfactory for the following reasons.

Compliance with TfNSW's studies

The proposed parking provision of 19 car spaces complies with the most recent TfNSW study for child care centre and the RTA 2002 Guide. The TfNSW's parking rates are based upon extensive surveys undertaken for both these studies/guide. Therefore, it is reasonable to rely on these extensive surveys to calculate a parking requirement.

Compliance with Parramatta City Council's Draft DCP

While this document has not yet been finalised, it indicates the direction that Parramatta City Council will take in regards to child care centre parking. Based on this draft document, a provision of 19 spaces is sufficient to accommodate the development.

Lower parking demands than the requirements of Council's DCP and the Guide

It is stated in the Child Care Centre Planning Guideline that a reduction in car parking rates may be considered where the site is in proximity to high frequency and well connected public transport or is in proximity to other uses where parking is appropriately provided (for example business centres, schools, public open space, car parks). The site is located within 200m of Murray Farm Public School. It is anticipated that some parents/carers who dropping-off a child at the childcare centre will also be dropping-off another child at the public school. As a result, there will be no additional traffic generation and parking demands from these parents/carers. The parking demand of the proposed childcare centre would be less than the parking requirements in accordance with the Council's DCP and the Guide.

As the site is located in proximity to major bus stops, some of the staff will utilise public transport to travel to and from work, thus it is excessive to provide parking for each employee.

Adequate on-street parking to accommodate overflow parking

Drop-off and pick-up activities of a childcare centre generally occur between 7:30 and 8:30AM in the morning and between 5:00 and 6:00 PM in the afternoon, as part of parents' trip to and from work. As shown in the survey results in Section 2.6, the childcare peak hours would occur outside the peak drop-off/pick-up periods of the public school. There will be sufficient on-street parking near the site to accommodate overflow parking demand if required, albeit not expected.

4.2 Bicycle Parking Requirement

The DCP does not specify the bicycle parking requirements for childcare centre. The proposed development will provide 3 bicycle parking spaces for staff. This would encourage staff to cycle to work, thus, reduce the reliance on cars.

4.3 Motorcycle Parking Requirement

The DCP does not require motorcycle parking for development with less than 50 on-site car parking spaces. No Motorcycle parking spaces will be provided on site.

4.4 Accessible Parking Requirement

The DCP does not stipulate specific accessible car parking requirements for childcare centres. The accessible parking requirement has been obtained from the *Disability (Access to Premises — Buildings) Standards 2010*.

Childcare centres are classified as building class 9b for assembly buildings that cater for educational purposes such as school, early childhood centre, preschool or the like. The Standard's parking rate requires the provision of one accessible space for every 50 car parking spaces (for car park that has less than 1000 parking spaces).

Based on the above, the proposed development with provision of 19 car parking spaces would require at least one accessible parking space. The development proposes one accessible parking space with an adjoining shared zone, which is compliant with the Disability Standards.

4.5 Servicing Requirement

Waste collection will be undertaken on the kerbside lane along the site frontage as per the existing arrangements.

Deliveries to the site will be undertaken by a van (a typical B99 vehicle) or similar vehicle on the vacant visitor/delivery space outside peak drop-off / pick-up periods. The low frequency of deliveries will not have noticeable impacts on operation of the site.

4.6 Design Review

4.6.1 Car Park Layout

The proposed car park is to comply with design requirements set out in the relevant Australian Standard for car parking facilities, namely AS2890.1:2004 and AS2890.6:2009.

Based on the Australian Standards (AS2890.1:2004) childcare centre spaces should be Class 3 for visitors and Class 1A for staff. Class 3 spaces are a minimum of 2.6m wide, 5.4m long with a 5.8m aisle width. Class 1A are a minimum of 2.4m wide, 5.4m long with a minimum 5.8m aisle width.

The proposed car parking spaces for the childcare centre are therefore provided as 2.6m wide for visitors and 2.4m wide for staff.

The accessible parking space provided for the childcare centre visitors has been designed in accordance with AS2890.6:2009, with a 2.4m wide space and an adjoining 2.4m wide shared zone.

The aisle width of 6.2m provided is in excess of the AS2890.1, 1:2004 minimum requirement of 5.8m.

Any minor non compliances are to be resolved in the construction certification stage.

4.6.2 Driveway and Ramp Design

The proposed grades of the driveway between the site boundary and the basement car park comply with the Australian Standard AS2890.1:2004. The first 6m of the driveway from the property boundary has a maximum gradient of 5%. The design driveway has a width of 5.5m to accommodate a two-way traffic flow.

Swept Path analysis is provided in Appendix B demonstrating vehicle access.

4.6.3 Pedestrian Priority

Due to the constraints of the site, a separated pedestrian path behind the car spaces is not feasible. Pedestrians would share the car park aisle to walk between the car spaces and the lobby and lift access. To maximise pedestrian safety, the car park aisle is to be sign posted as a 'Shared Zone' with a '10km/h' restriction.

5 Traffic Assessment

5.1 Traffic Generation based on TfNSW Guide

Transport for New South Wales (TfNSW, formerly Roads and Maritime Services) provide traffic generation rates for different land uses in the *RTA Guide to Traffic Generating Developments 2002 (Guide)*.

Based on the Guide, the traffic generation rates for a childcare centre are as follows:

- AM Peak: 0.8 vehicle trips per child
- PM Peak: 0.7 vehicle trips per child.

A summary of the traffic generation of the proposed development is presented in Table 5.1

Table 5.1: Traffic Generation

Type	Land Use	Size	Trip Rate		TfNSW Trip Generation	
			AM Peak	PM Peak	AM Peak	PM Peak
Proposed	Childcare Centre	74 children	0.8 vehicles per child	0.7 vehicles per child	59 trips	52 trips
Existing	Single Residential Dwelling	1 dwelling house	0.95 per dwelling	0.99 per dwelling	1 trip	1 trip
Net change					+58 trips	+51 trips

Based on the Table 5.1, the proposed development would generate 58 vehicle trips (29 in and 29 out) per hour in the AM peak hour and 51 vehicle trips (25.5 in and 25.5 out) in the PM peak hour.

As discussed in Section 4, it is expected that some of the vehicle trips of the proposed childcare centre would be existing trips that parents/carers dropping-off/picking-up children to/from Murray Farm Public School. Further, given the Murray Farm Public school catchment area, demographics of the area and residential zoning, it is expected that a percentage of the parents/carers live within walking distance and will not rely on vehicles for dropping-off/picking-up children from the proposed childcare centre.

It is assumed that 20% of the traffic generation would be existing trips generated by the public school. In this case, the net traffic generation of the proposed development would be 46 trips in the AM peak hour and 41 trips in the PM peak hour. This level of additional traffic is less than 1 vehicle trip per minute and will not have noticeable impacts on the surrounding road network.

6 Summary and Conclusion

This report examines the traffic and parking implications of a proposed childcare centre at 1 Tracey Avenue, Carlingford. The salient findings of this report are presented below:

- The proposed development involves demolition of the existing dwelling and construction of a new childcare centre at 1 Tracey Avenue, Carlingford. The proposed childcare will be a 2-storey building with basement parking.
- The site proposes to provide a capacity of 74 children and 13 staff.
- The car parking provision is for 19 spaces which is a shortfall of 7 car spaces compared to Council's DCP requirements.
- The provision of car parking spaces complies with RTA's Guide and TfNSW recent study, and it is considered acceptable for the following reasons: .
 - Council's parking requirement is excessive, when compared against TfNSW guidelines and the draft DCP released by Parramatta City Council for public exhibition.
 - The existing parking demand of the site is less than the DCP requirements based on survey data.
 - Additional pick-up/set-down parking activity can be accommodated within available kerbside parking along Murray Farm Road and Tracey Avenue.
- The proposed car park and access have been designed in accordance with AS2890.1:2004 and AS2890.6:2009.
- The development will generate a net increase of 51-58 vehicle trips per hour. This is an acceptable volume of traffic for a childcare centre and is not expected to adverse impacts to the surrounding road network.

Overall, the traffic and parking implications of the proposed development is considered to be satisfactory.

Appendix A

Architectural Plans

MURRAY FARM ROAD



No.72 MURRAY FARM ROAD
OUTLINE OF DA APPROVED
TWO STOREY DWELLING
REFER DA/994/2021

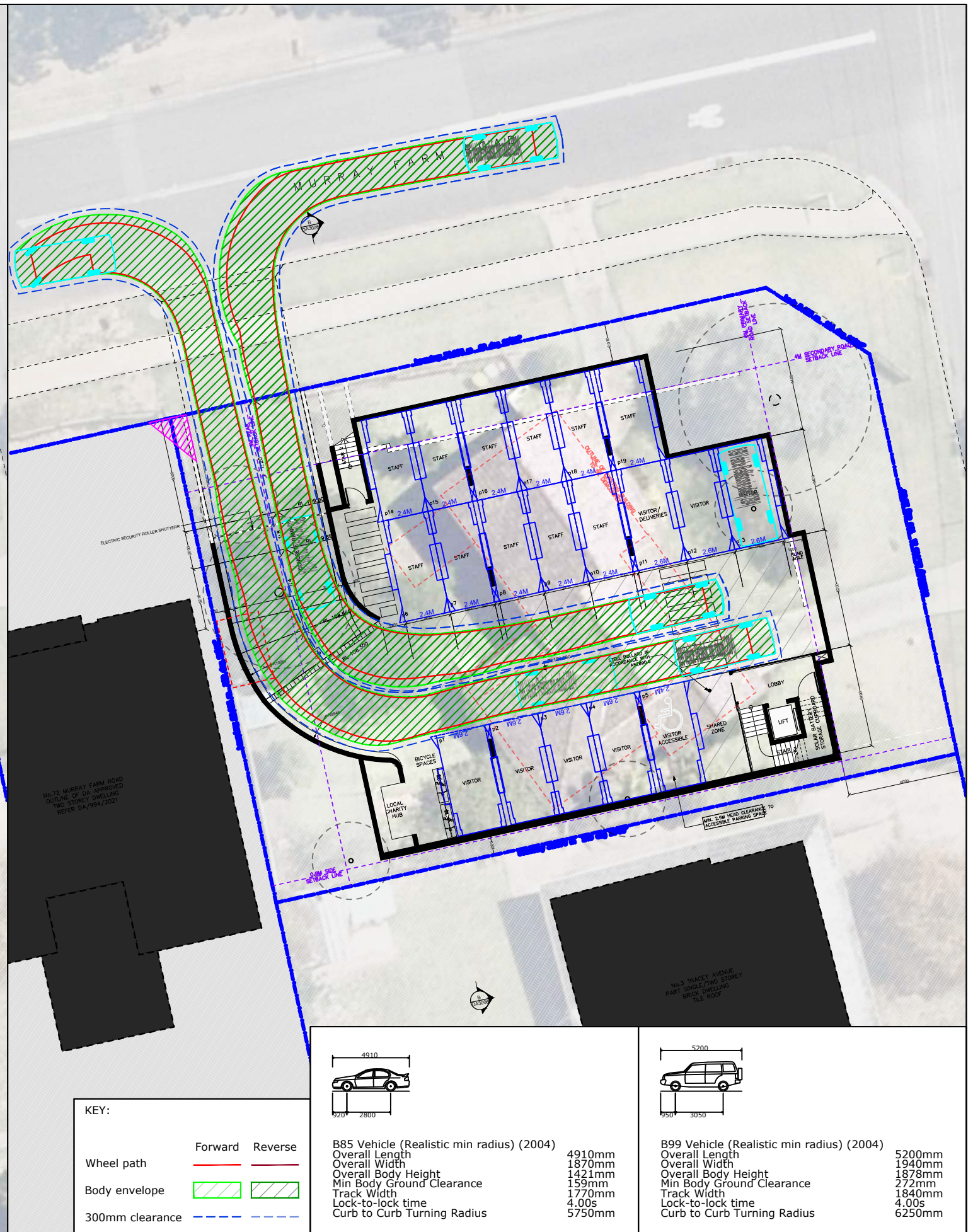
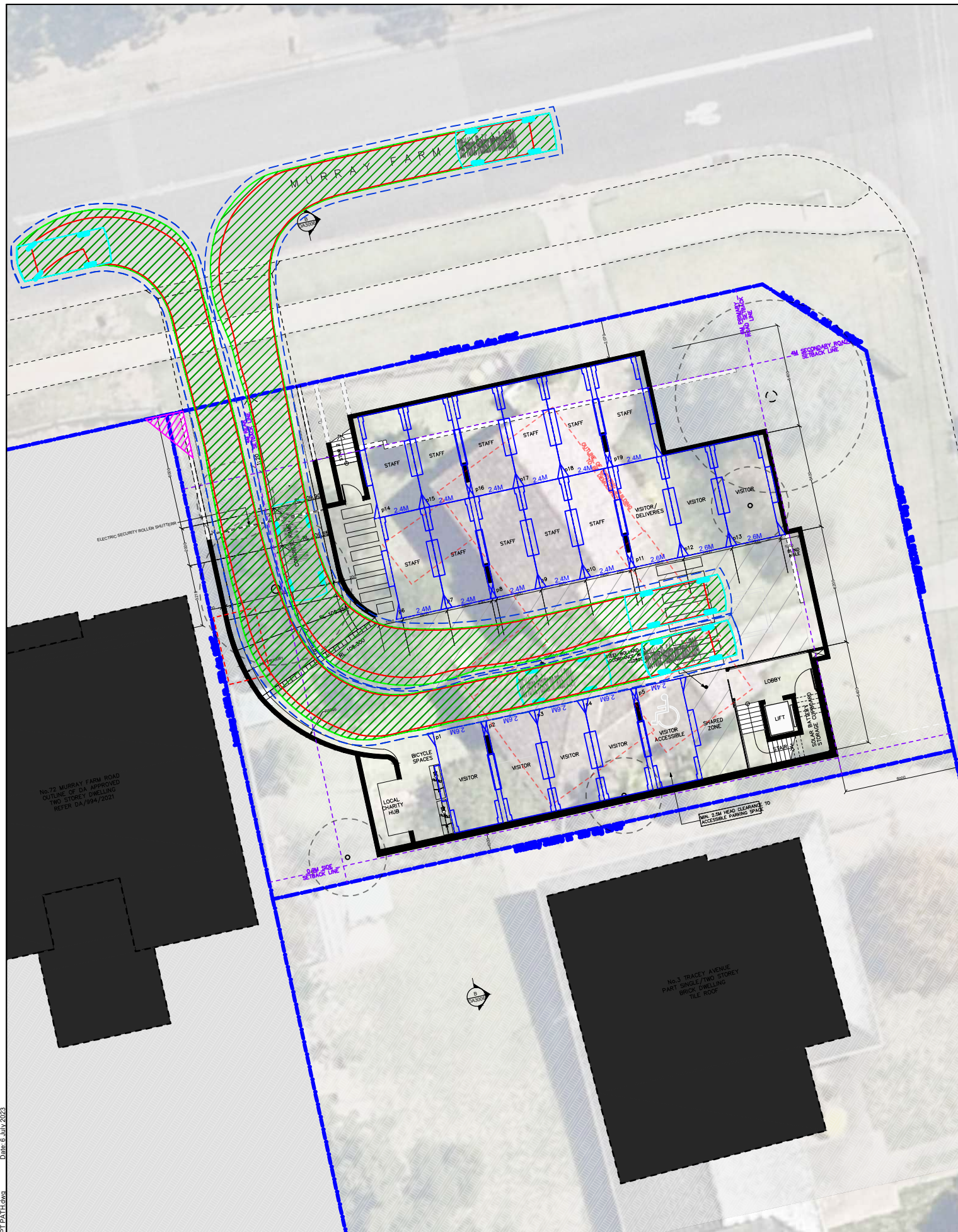
No.3 TRACEY AVENUE
PART SINGLE/TWO STOREY
BRICK DWELLING
TILE ROOF

- NOTES:**
1. ACCESSIBILITY MEASURES IN ACCORDANCE WITH ACCESS DESIGN REPORT
 2. ACOUSTIC MEASURES IN ACCORDANCE WITH ACOUSTIC REPORT
 3. EXISTING TREES IN ACCORDANCE WITH ARBORIST REPORT
 4. ENVIRONMENTAL MEASURES IN ACCORDANCE WITH PRELIMINARY SITE INVESTIGATION REPORT
 5. STORMWATER DRAINAGE TO HYDRAULIC ENGINEER'S DETAIL
 6. SURVEY INFORMATION AS EXTRACTED FROM SURVEY PLAN
 7. LANDSCAPING TO LANDSCAPE ARCHITECT'S DETAIL
 8. TRAFFIC AND PARKING LAYOUT IN ACCORDANCE WITH TRAFFIC REPORT

<p>LEVEL 14 163 MACDOUGALL STREET PARRAMATTA NSW 2150 P: +61 2 9415 9415 WWW.DBG.COM.AU INFO@DBG.COM.AU</p>	<p>project PROPOSED CHILDCARE CENTRE</p>	<p>drawing GROUND FLOOR PLAN</p>	<p>client MURRAY FARM EARLY LEARNING CENTRE</p>	<p>date 29/03/2023</p>	<p>scale 1:100 @ A1</p>	<p>project number DA2003</p>	<p>drawing number DA2003</p>	<p>issue A</p>	<p>drawn AF/GR</p>	<p>checked JA</p>
	<p>drawing 1 TRACEY AVENUE, CARLINGFORD (LOT 26 IN DP 225990)</p>	<p>client MURRAY FARM EARLY LEARNING CENTRE</p>	<p>date 29/03/2023</p>	<p>scale 1:100 @ A1</p>	<p>project number DA2003</p>	<p>drawing number DA2003</p>	<p>issue A</p>	<p>drawn AF/GR</p>	<p>checked JA</p>	<p>date (first issue) 29/03/2023</p>

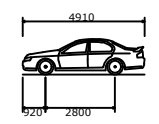
Appendix B

Swept Path Analysis

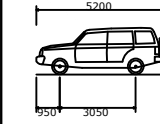


KEY:

Wheel path	Forward	Reverse
Body envelope		
300mm clearance		



B85 Vehicle (Realistic min radius) (2004)	
Overall Length	4910mm
Overall Width	1870mm
Overall Body Height	1421mm
Min Body Ground Clearance	159mm
Track Width	1770mm
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	5750mm



B99 Vehicle (Realistic min radius) (2004)	
Overall Length	5200mm
Overall Width	1940mm
Overall Body Height	1878mm
Min Body Ground Clearance	272mm
Track Width	1840mm
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	6250mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	HT	PC	KH	05/07/23



PROJECT: 1 TRACEY AVENUE, CARLINGFORD

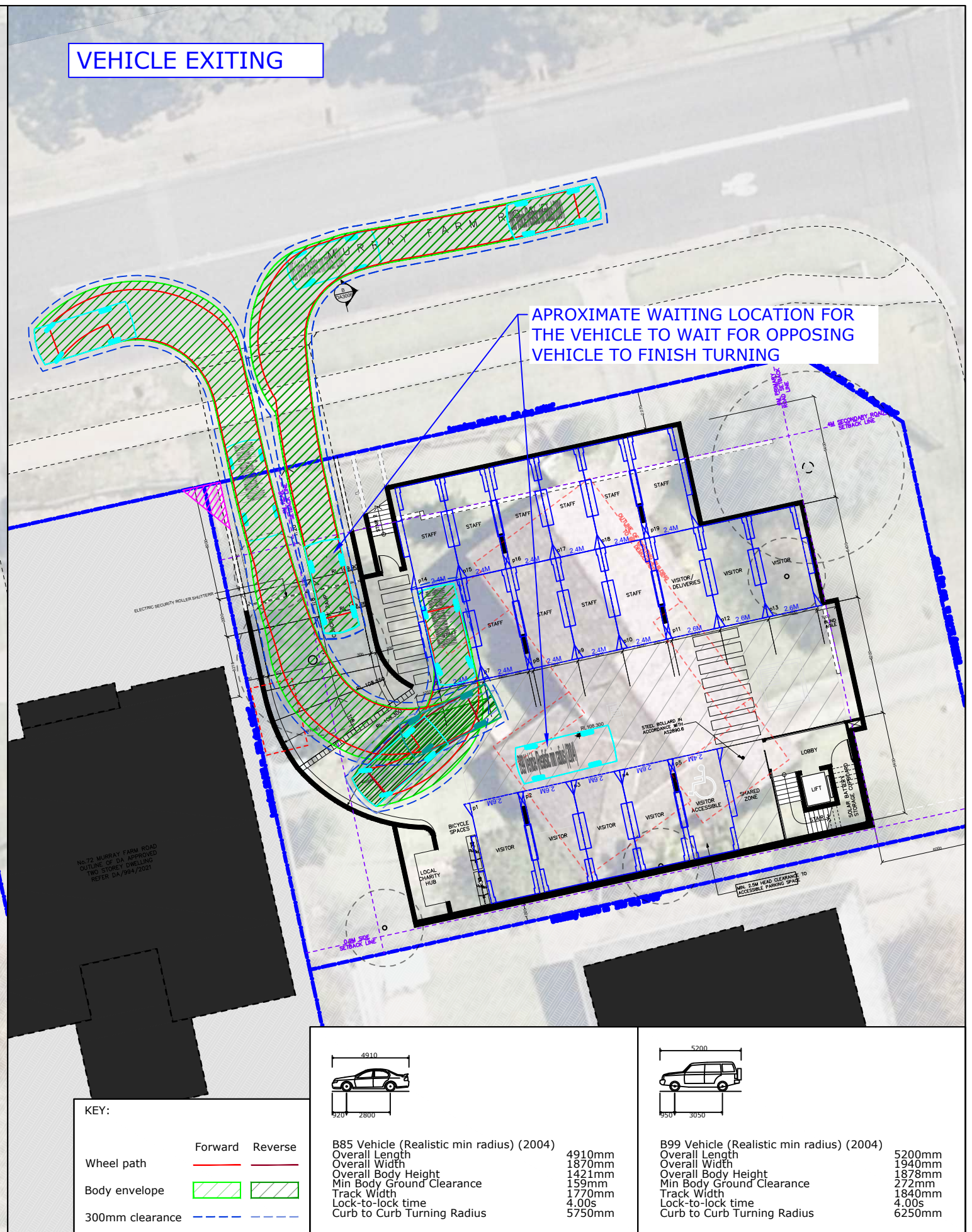
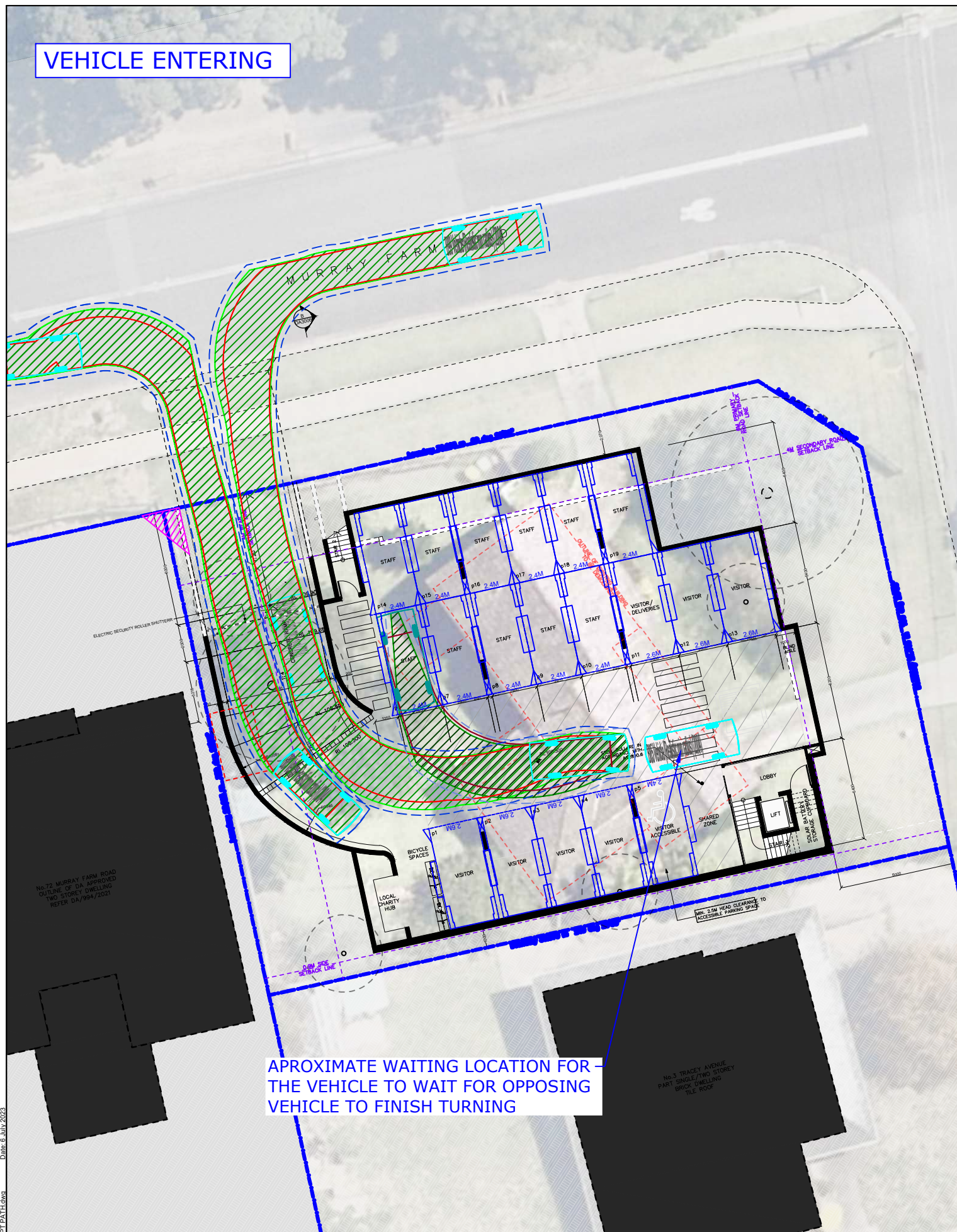
TITLE: SWEPT PATH ANALYSIS
AS2890.1 5.2m B99 VEHICLE & 4.9m B85 VEHICLE PASSING EACH OTHER

DWG No.	22532CAD005	
	FIGURE 2	
DATE STAMP	05 JULY 2023	
PROJECT No.	SCALE	REV.
22532	1:250 @A3	A

Date: 6 July 2023
Filename: 22532CAD005-240705-SWEPT PATH.dwg

VEHICLE ENTERING

VEHICLE EXITING

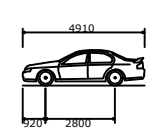


APROXIMATE WAITING LOCATION FOR THE VEHICLE TO WAIT FOR OPPOSING VEHICLE TO FINISH TURNING

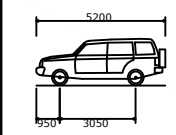
APROXIMATE WAITING LOCATION FOR THE VEHICLE TO WAIT FOR OPPOSING VEHICLE TO FINISH TURNING

KEY:

Wheel path	Forward	Reverse
Body envelope		
300mm clearance		



B85 Vehicle (Realistic min radius) (2004)
 Overall Length 4910mm
 Overall Width 1870mm
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 Track Width 1770mm
 Lock-to-lock time 4.00s
 Curb to Curb Turning Radius 5750mm



B99 Vehicle (Realistic min radius) (2004)
 Overall Length 5200mm
 Overall Width 1940mm
 Overall Body Height 1878mm
 Min Body Ground Clearance 272mm
 Track Width 1840mm
 Lock-to-lock time 4.00s
 Curb to Curb Turning Radius 6250mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	HT	PC	KH	05/07/23



PROJECT: 1 TRACEY AVENUE, CARLINGFORD

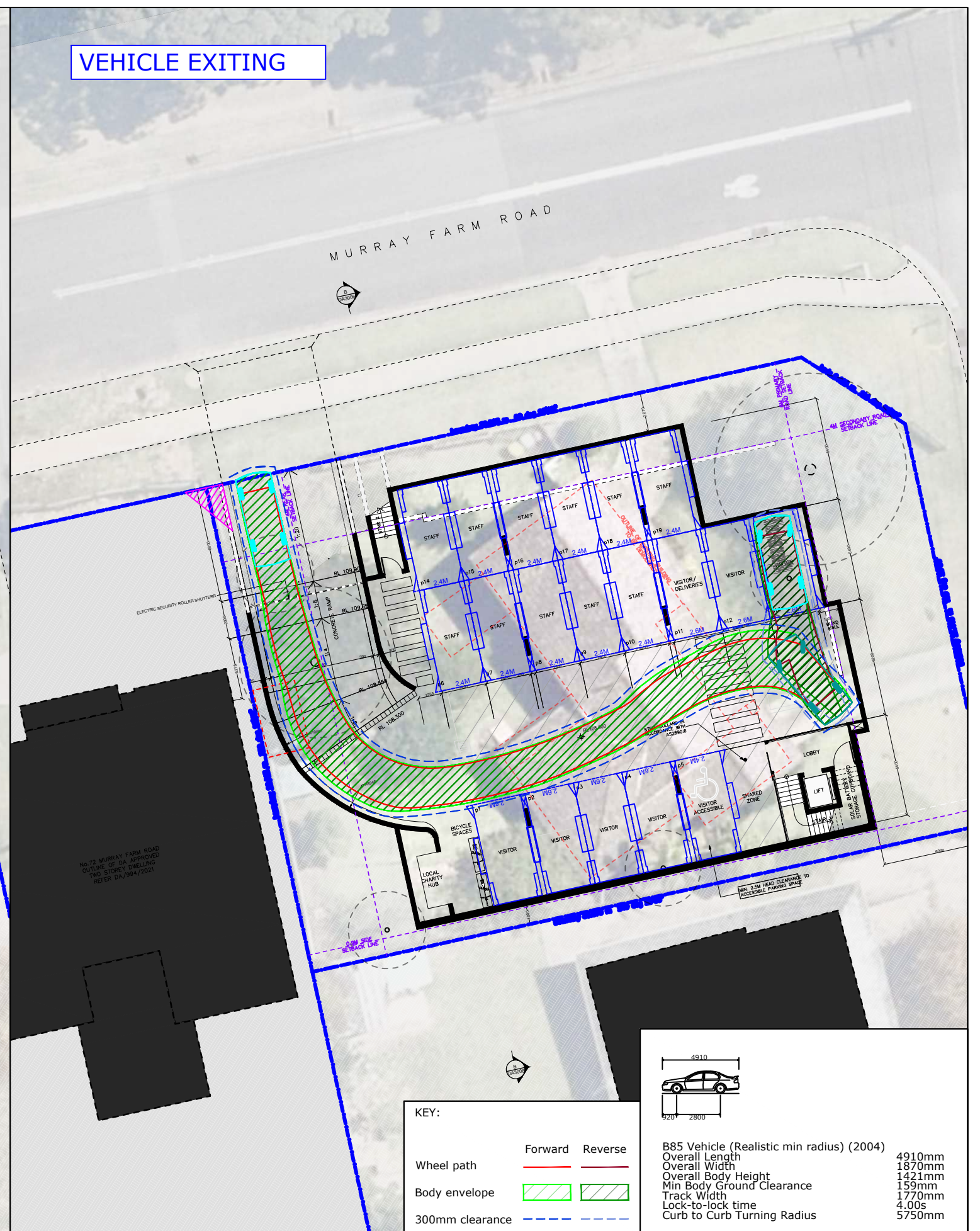
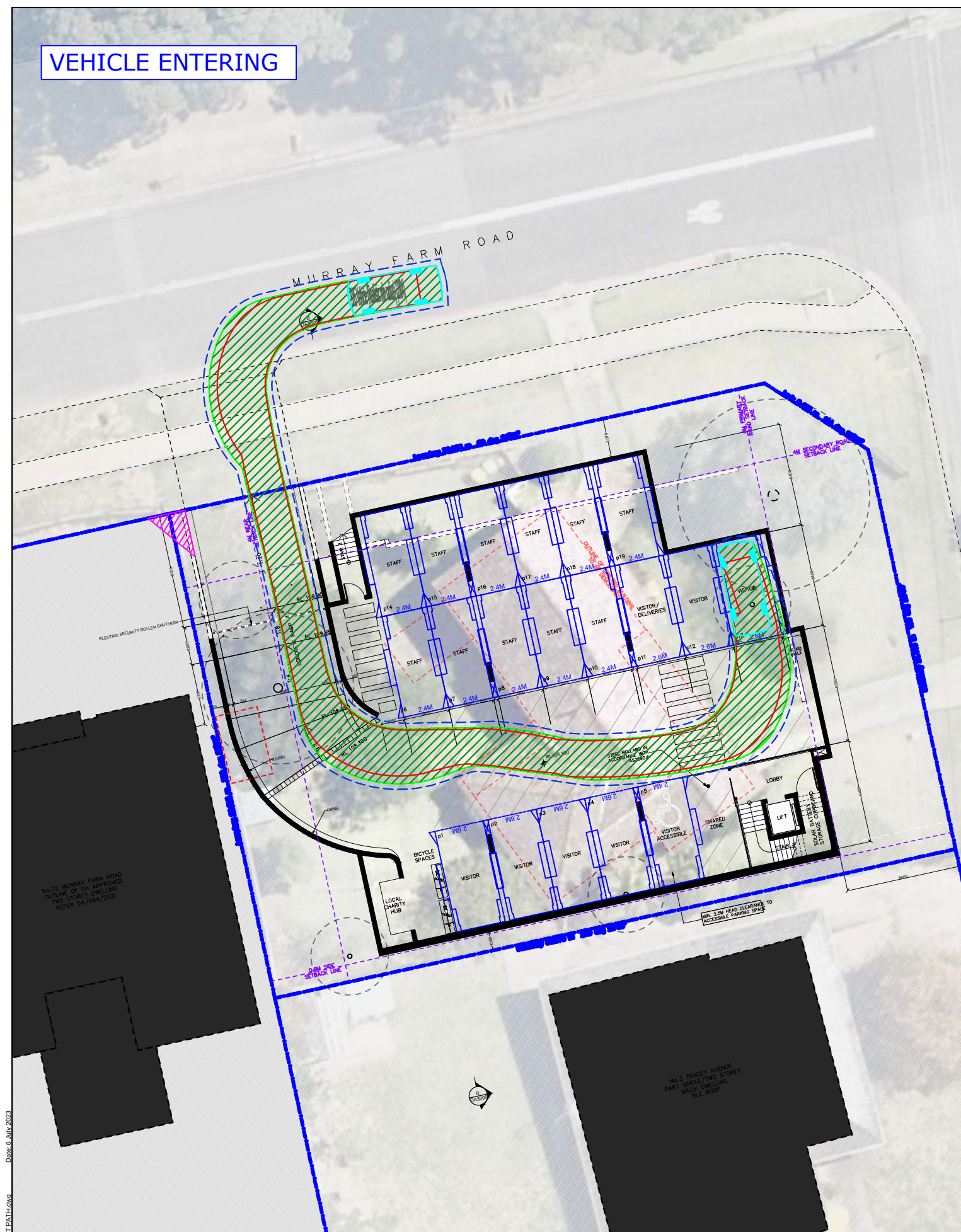
TITLE: SWEPT PATH ANALYSIS AS2890.1 5.2m B99 VEHICLE & 4.9m B85 VEHICLE

DWG No.	22532CAD005	
	FIGURE 3	
DATE STAMP	05 JULY 2023	
PROJECT No.	SCALE	REV.
22532	1:250 @A3	A

Date: 6 July 2023
 Filename: 22532CAD005-240705-SWEPT PATH.dwg

VEHICLE ENTERING

VEHICLE EXITING



KEY:

Wheel path	Forward	Reverse
Body envelope		
300mm clearance		

B85 Vehicle (Realistic min radius) (2004)	
Overall Length	4910mm
Overall Width	1870mm
Overall Body Height	1421mm
Min Body Ground Clearance	159mm
Track Width	1770mm
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	5750mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	HT	PC	KH	05/07/23



PROJECT: 1 TRACEY AVENUE, CARLINGFORD

TITLE: SWEPT PATH ANALYSIS AS2890.1 4.9m B85 VEHICLE

DWG No.	22532CAD005	
	FIGURE 4	
DATE STAMP	05 JULY 2023	
PROJECT No.	SCALE	REV.
22532	1:250 @A3	A

Date: 6 July 2023

The Transport Planning Partnership
Suite 402 Level 4, 22 Atchison Street
St Leonards NSW 2065

P.O. Box 237
St Leonards NSW 1590

02 8437 7800

info@tpp.net.au

www.tpp.net.au