12 Segers Avenue Padstow (NSW)

Car Parking Impact Assessment

Client: r Nemir Makram

Prepared by

Evan Boloutis
Director
B.Eng (Civil), MEng Sc (Traffic), MBA

EB Traffic Solutions Pty Ltd
evan@ebtraffic.com.au
www.ebtraffic.com.au
0408 395 729

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1. INTRODUCTION

1.1 Purpose of this report

This report sets out an assessment of the parking implications of the proposed development, with specific consideration of the following:

- the existing conditions and a description of the proposal;
- an assessment of the development's car and bicycle parking requirements;
- adequacy of the on-site and on-street car parking supply to accommodate both the proposal's car parking requirements and the car parking demands anticipated to be generated by the proposal; and
- a review of the layout of the on-site car park in accordance with the requirements of the Australian Standards; and
- the traffic impact of the proposed development.

1.2 Referenced documents

This report has been based upon a number of sources. These include:

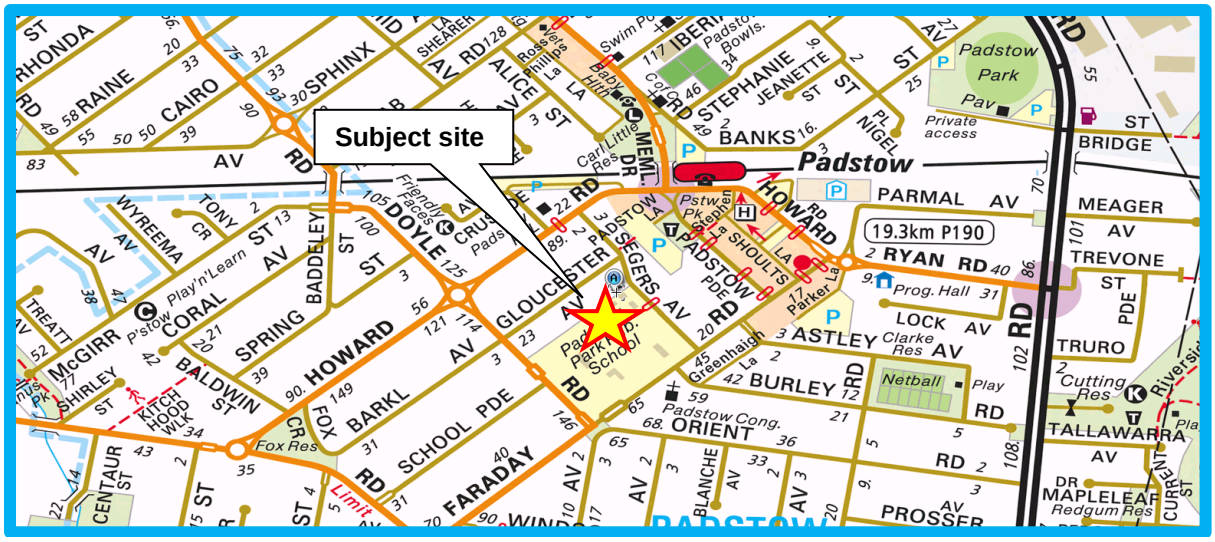
- Discussions with the applicant, representatives and town planning officers at the City of Canterbury-Bankstown;
- Google Maps & StreetView, Nearmap and Street-directory online;
- AutoTURN computer software for the swept path analysis;
- Parking surveys undertaken on Thursday 5 September 2024 between 8 am and 6 pm;
- City of Canterbury-Bankstown, Canterbury-Bankstown DCP (2021) Amended August 2024, City of Canterbury-Bankstown LEP (2023) and Building Code of Australia;
- Australian Standards AS 2890.1:2004, AS 2890.1:2009, AS 2890.2:2018 and AS 2890.3:2015; and
- Layout plans prepared by Space Architects, Job 24-6, Sheets DA1014, DA1015 and DA1019, dated May 2024.

2. EXISTING CONDITIONS

2.1 Location and Land use

The existing site is located along Segers Avenue, approximately 50m south of Gloucester Avenue, and directly abutting the Padstow Park Primary School.

The location of the subject site is shown in **Figure 2.1**.



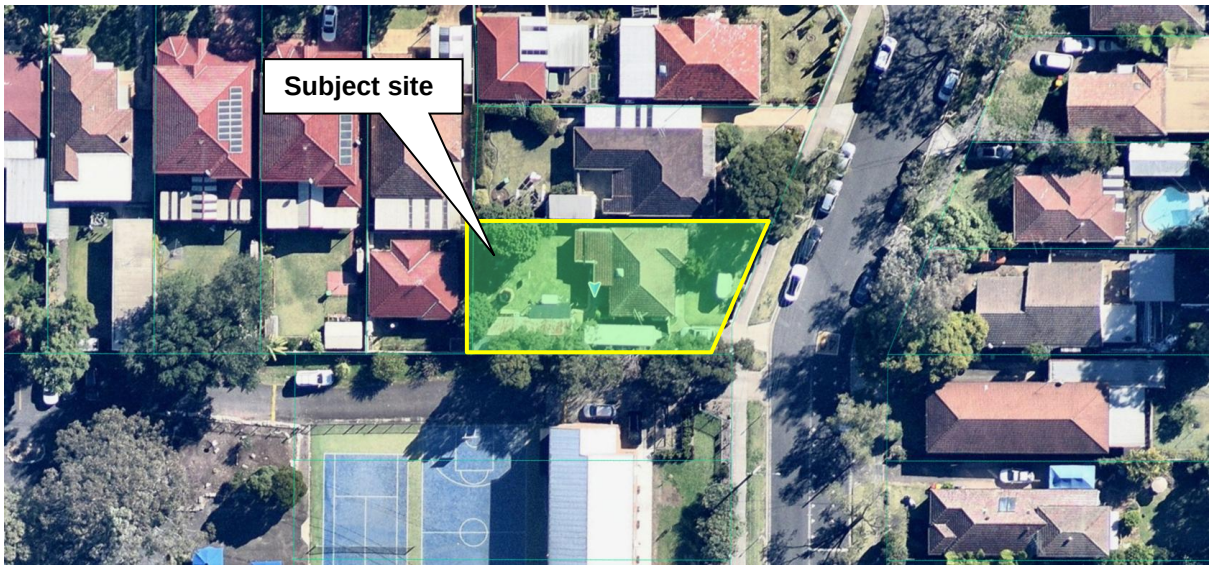
Source: Copyright Street-Directory Pty, Ltd. Reproduced from Melways online with permission

Figure 2.1: Location of the subject site

The site, which is currently occupied by a single storey weatherboard dwelling with associated single garage. Access to and from the site's southern boundary.

The surrounding area is typically residential in nature, comprising of both arterial and local roads, public parks, schools and recreational areas, local activity centres and public transport facilities. It is typical for residential areas to yield passenger vehicle and light truck motorists, with concessions for refuse truck and bus services during weekdays/weekends.

The nature of the site and the surrounding land uses are shown in **Figure 2.2**.



Source: Nearmap (image taken on 18th July 2024)

Figure 2.2: Nature of the site and surrounding environs

2.2 Road Network

Segers Avenue is a local road and contains an undivided cross section with a traffic lane and a kerbside parking lane in each direction. The roadway features pick-up and drop-off facilities for children during peak school times.

On-street car parking is typically characterized by a mixture of School related restrictions, and unrestricted parking. The default speed limit is 50km/hr, or 40km/hr during school times.

The cross section of Segers Avenue is demonstrated through imagery looking to the north and south as shown in **Figures 2.3 and 2.4,** respectively.

Source: Google Maps StreetView

Figure 2.3: Segers Avenue looking north

Source: Google Maps StreetView

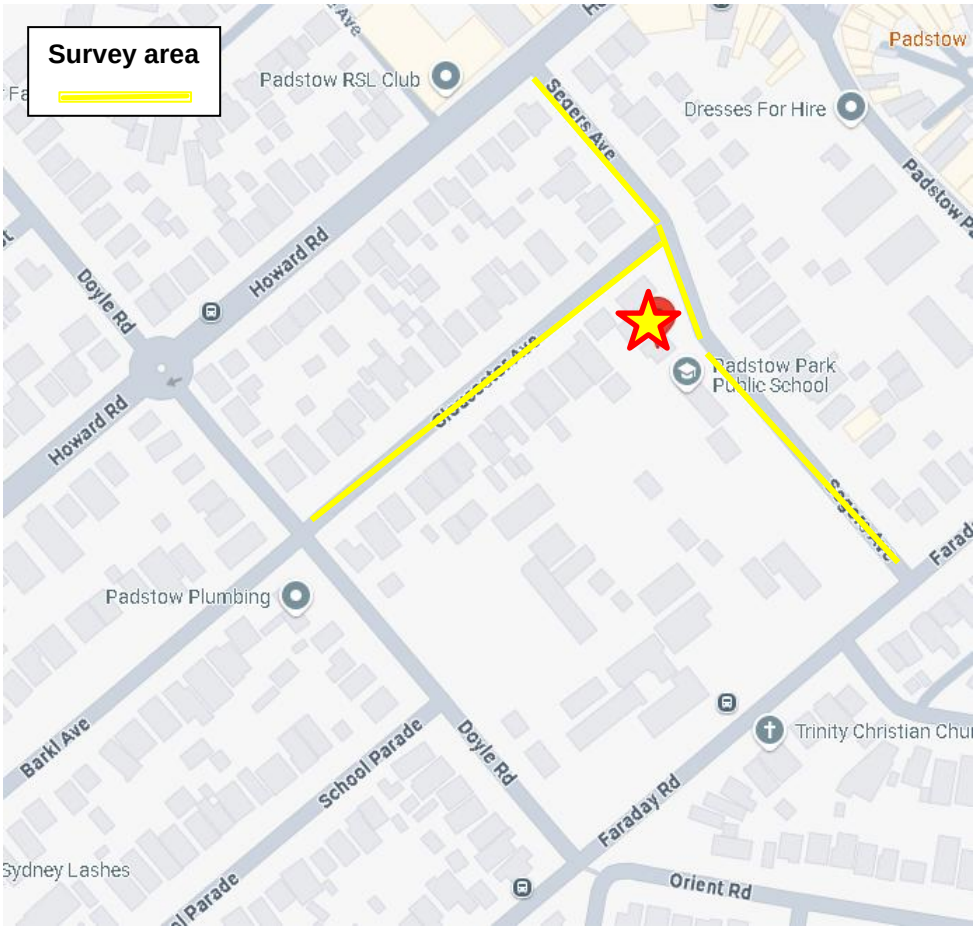
Figure 2.4: Segers Avenue looking south

2.3 Existing Parking Supply and Demand

There are around 111 parking spaces located in the immediate vicinity of the site.

Reference to the Victorian Transport Policy Institute paper on Shared Parking, dated 4 September 2007, indicates that a walking distance of approximately 200 m is considered an acceptable walking distance for visitors to general retail facilities.

On the basis of the above, the area adopted for the parking surveys corresponds to a distance of up to 150 m from the subject site, as shown in **Figure 2.5**.



Source: Google Maps

Figure 2.5: Survey area adopted for the parking surveys

To establish the existing parking demands in the nearby on-street car parking areas, parking surveys were undertaken within this defined study area on Thursday 5 September 2024 between 8 am and 6 pm.

The key findings from the parking surveys are summarised in **Attachment A** and indicate that during the survey period, the peak car parking demand occurred at 12 noon and corresponded to 49 cars or 44 % of the available parking supply in the immediate vicinity of the site.

2.4 Sustainable Transport Modes

2.4.1 Public Transport

There is an excellent provision of public transport services which operate adjacent to and in the vicinity of the site.

Details of the public transport services are summarised as:

Train

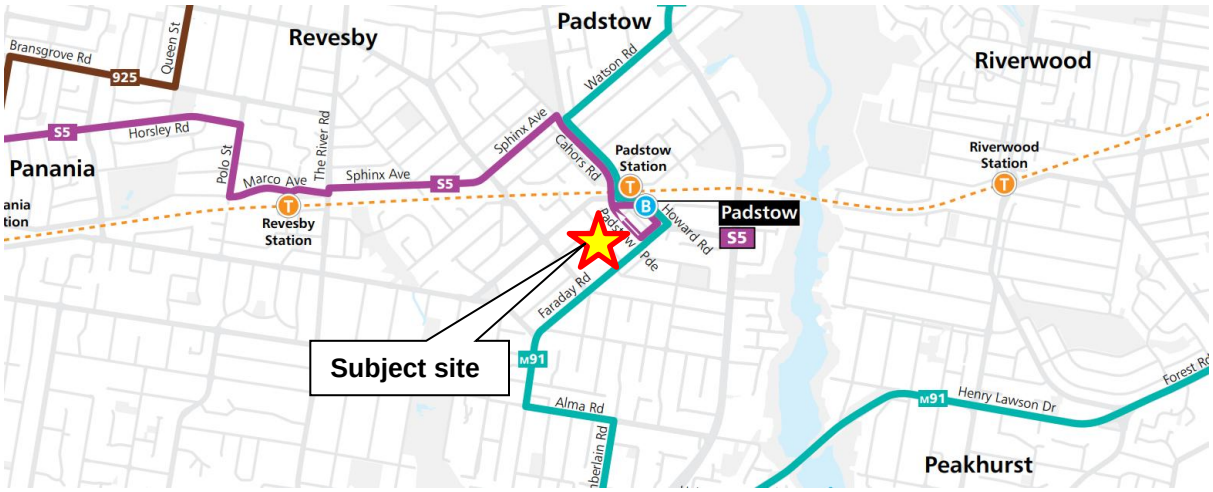
Padstow Railway Station is located 350m north of the site, or a 1 minute walking distance.

Bus

- Bus route 926 operates between Revesby Heights and Bankstown;

- Bus route 927 operates between One Tree Point and Padstow;
- Bus route 963 operates between Menai Marketplace and Alfords Point;
- Bus route S132 operates between Malek Fahd Islamic School and Wiley Park;
- Bus route S150 operates between Christadelphian Heritage Collage and Yagoona Station;
- Bus route S164 operates between Picnic Point HS and Henry Lawson Drive;
- Bus route S227 operates between Padstow and Menai High School via Padstow Heights;
- Bus route S719 operates between Tuggerah Lakes SC, Berkeley Vale and Wyong PS;
- Bus route S721 operates between De La Salle College and Padstow;
- Bus route S724/725 operates between Padstow and Picnic Point High School;
- Bus route S740 operates between Georges River Grammar and Padstow Heights; and
- Bus route M91 operates between Hurstville and Paramatta via Padstow & Chester Hill.

The public transport services operating in close proximity to the site are shown in **Figure 2.6**.

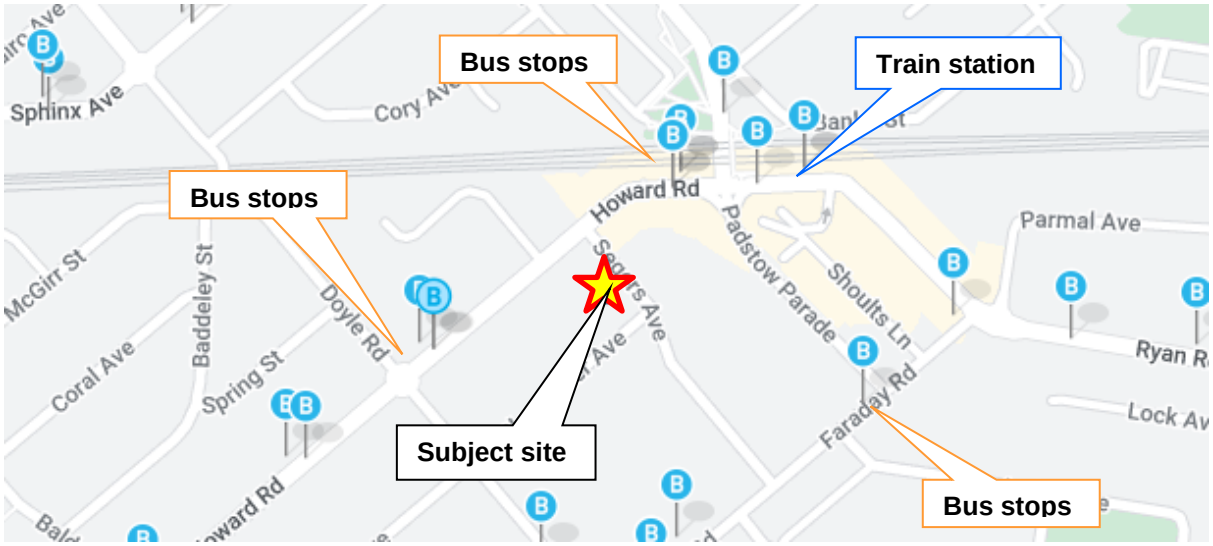


Source: Parramatta, Fairfield, Liverpool & Bankstown region network (May 2024)

Figure 2.6: Public transport services in vicinity of the subject site

An assessment of the timetables of the various public transport services indicate that each service operates during the weekday and weekend time periods within frequent time intervals.

Bus stops are located along Howard Road and Faraday Road in close proximity to the site as shown in **Figure 2.7**.



Source: AnyTrip Planning and Stop finder map

Figure 2.7: Public transport services in vicinity of subject site

Imagery illustrating a 15-minute public transit distance from the site, is achievable within the highlighted area surrounding Padstow in **Figure 2.8**.

Source: Mapnificent Sydney (interactive transit map)

Figure 2.8: 15-minute Public Transport coverage map

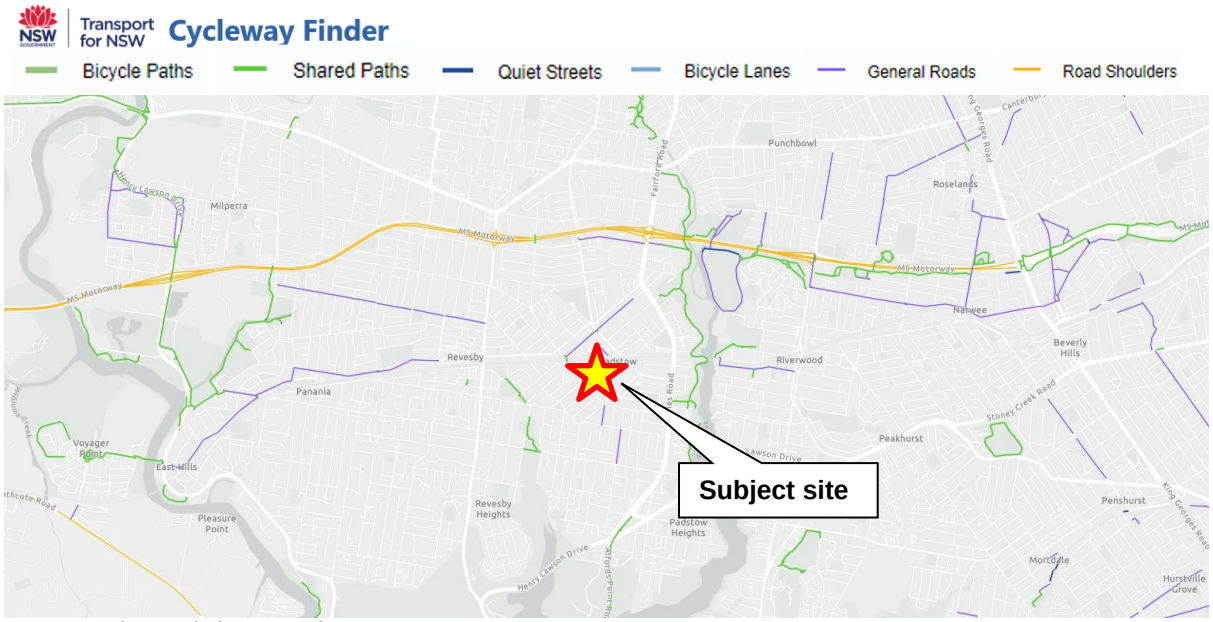
2.4.2 Sustainable Transport Infrastructure

The City of Canterbury - Bankstown is well serviced by an extensive network of on- and off-road bicycle paths linking the municipality with the surrounding municipalities.

The bicycle network is comprehensive and consists of the following:7

- *Shared paths* along the Salt Pan Creek Boardwalk to the north and east, as well as along the M5 alignment linear shared routes to the north;
- *General road routes* exist along Watson Road to the north, Bransgrove Road, as well as along the railway alignment to the west; and
- Road shoulder routes coexist along the alignment of the M5 Motorway to the north.

The bicycle network in close proximity to the site is shown in an extract from the NSW Cycleway Finder map in **Figure 2.9**.



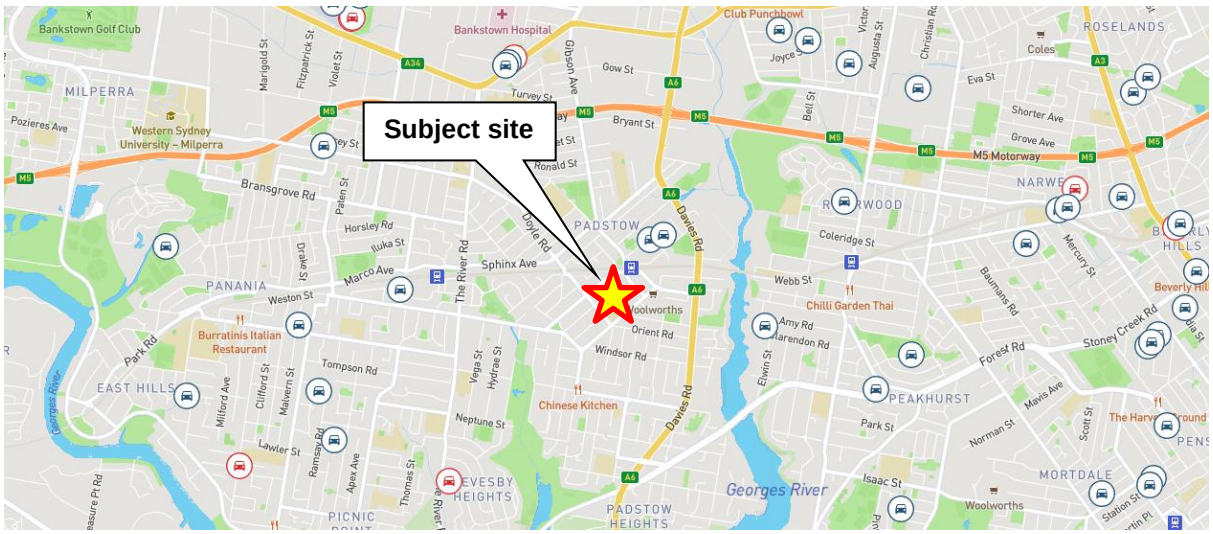
Source: Cycleway Finder Interactive Maps

Figure 2.9: On- and off-road bicycle routes in the vicinity of the subject site

2.4.3 Car Share facilities

Car sharing schemes have been operating in Sydney since 2003 with a number of inner metropolitan Councils actively supporting their use by allocating on-street spaces throughout their municipalities for the purposes of accommodating 'car share' cars.

Commercially and privately operated car share cars are available in close proximity to the subject site, as shown in **Figure 2.10.**



Source: Uber Car Share Map

Figure 2.10: Car sharing opportunity surrounding the subject site

3. THE PROPOSAL

It is proposed to demolish the existing dwelling and construct a two storey child care centre accommodating up to a maximum of 44 children and a maximum of eight staff members at any one time.

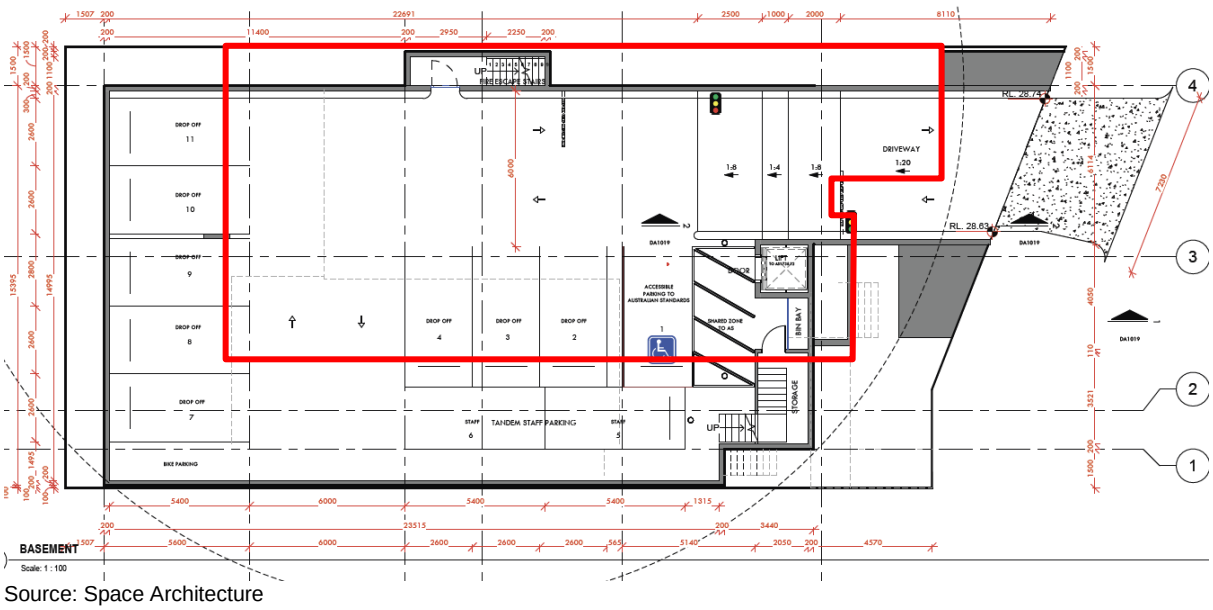
It is understood from discussions with the applicant that the before and after school care service operates between 7 am and 9 am and between 3 pm and 6 pm on weekdays. The child care centre is not proposed to operate on weekends. A total of eight support staff will be provided for the child care centre.

It is proposed to provide 11 car parking spaces, inclusive of a disabled parking space to be provided within the basement car park. Access to the site is proposed via a new crossover adjacent to the site's northern boundary.

The existing crossover will be reinstated with kerb and channel in accordance with Council's requirements.

All staff and visitors to the development are proposed to be accommodated in the on-site spaces.

The extent of the proposed car parking within the development is shown in **Figure 3.1** and in **Attachment B.**



Source: Space Architecture

Figure 3.1: Proposed basement carparking area

4. CAR PARKING

4.1 Car Parking Requirements

The car parking requirements for the proposed land use components are set out in the Canterbury-Bankstown DCP (2024), specifically Chapter 3.2, page 6.

Reference to the Canterbury-Bankstown DCP indicates that the car parking requirements for a centre based childcare facility are summarised as:

- *1 space per 4 children and*
- *2 additional car spaces for the exclusive use of any associated dwelling*

Further reference to the Building Code of Australia indicates that, for a child care centre, there is a requirement to provide one disabled parking space, which is satisfied by the proposed provision of a disabled bay.

Application of the above parking rates results in a car parking requirement of 11 spaces inclusive of a disabled space.

The proposed on-site provision of 11 spaces inclusive of a disabled bay satisfies the development's parking requirements of 11 spaces as set out in the Canterbury-Bankstown DCP (2023) and the Building Code of Australia.

4.2 Bicycle Parking Requirements

The bicycle parking requirements for land uses are set out in the Canterbury-Bankstown DCP (2024), specifically Chapter 3.2, page 6.

This requirement seeks to encourage cycling as a mode of transport with the provision of secure, accessible and convenient bicycle parking spaces.

Reference to the DCP indicate that there is a requirement to provide *1 space per 4 staff*, or a total of two bicycle spaces.

Reference to the layout plans indicate that a bicycle parking area is provided in the south-west corner of the car park which is capable of accommodating two bicycle spaces.

4.3 Car Park Layout

4.3.1 Dimensions of car accommodation

It is proposed to provide a total of 11 car parking spaces, inclusive of a disabled parking space. Of these spaces, two spaces will be allocated to staff and nine spaces allocated to parents/carers.

The parents/carer parking bays have been provided at a width of 2.6 m and a length of 5.4 m long with an adjacent aisle width of at least 6 m. The staff parking bays have been provided in a tandem parking configuration at a width of 2.4 m and a length of 5.4 m.

Offset clearances of 300 mm have been provided adjacent to parking bays located next to end walls.

The disabled bay has been provided at a width of 2.6 m with the adjacent shared/manoeuvring space provided at a width of 2.4 m with a length of 5.4 m and an aisle width of 6m, which complies with AS 2890.6:2009.

It is recommended that the staff spaces are linemarked yellow with appropriate signage stating 'reserved - staff parking only'. Visitor parking bays are recommended to be signposted and linemarked appropriately.

4.3.2 Width of internal access

To comply with AS 2890.1:2004, the minimum width of the access ramp is required to be 5.5 m (between kerbs).

Reference to the layout plans indicate that the width of the access ramp (between kerbs) is 5.1 m.

Given that the ramp width is technically less than that required in AS 2890.1:2004 and to minimise the potential for conflict along the access ramp and within the basement car park, it is recommended that a priority warning light system be adopted at the top of the access ramp and within the basement car park providing advance warning for motorists turning into the access ramp from Segers Avenue (and vice versa).

An example of a priority warning light system is shown in **Attachment C**.

To further enhance the level of safety for motorists entering the car parking area, particularly when the car park is fully occupied, it is recommended that dynamic parking signage be located at the entrance to the basement parking area stating the number of available spaces, an example of which is shown in **Figure 4.1**.

Figure 4.1: Signage indicating available parking spaces

4.3.3 Access to/from car spaces

The swept paths of vehicles entering and exiting the respective car spaces on the development site have been assessed with the use of the AutoTURN computer software for a B85 car.

The analysis indicates that to enable a motorist to safely access the on-site spaces, manoeuvre out of the spaces and exit from the car parking spaces in a forward manner to Segers Avenue, as shown in **Attachment D**.

A further analysis was undertaken to examine the ability for B85 and B99 vehicles to simultaneously undertake turning manoeuvres at the top of the access ramp.

The analysis, which was undertaken with the use of the AutoTURN computer software, is shown in **Attachment D (sheet A3.01),** and indicates that B85 and B99 vehicles are able to undertake simultaneous turning manoeuvres at the top of the access ramp.

To examine the ability for a B99 to safely travel along the access ramp (in both directions), a ground clearance assessment was undertaken with the use of the AutoTURN computer software.

The analysis, which is shown in **Attachment E**, indicates that a motorist is able to safely travel along the access ramp (in both directions) without scraping the underside of their vehicle.

4.3.4 Gradients

An assessment of the proposed gradients along the access ramp complies with the requirements stipulated in AS 2890.1:2004.

4.3.5 Headroom clearance

To accord with the relevant Australian Standards, the headroom clearance along the access ramp and within the basement car park is required to be a minimum of 2.2 m and a headroom clearance of 2.5 m provided above the accessible space.

4.3.6 Columns

The column within the basement car park between bays 9 and 10 has been located between 0.75 m and 1.75 m from the edge of the accessway which accords with AS 2890.1:2004.

4.3.7 Sight lines for exiting motorists

To ensure maximum sight lines are provided for motorists exiting from the development's access and to pedestrians walking along the west side of Segers Avenue, a triangular area measuring 2 m along the property boundary from the edge of the driveway access (to the west) and 2.5 m along the access from the property boundary, it is recommended that the sight line triangles to the immediate north and south of the crossover at the boundary line contain low level ground cover (0.3 m max height).

The requirement to provide sight line triangles for pedestrian safety is stipulated in Figure 3.3 of the Australian Standard, AS 2890.1:2004.

5. OTHER

5.1 Commercial Vehicles

Discussions with the applicant confirm that deliveries associated with the child care would be accommodated in a small van with a maximum length of 5.26 m, which can conformably be accommodated within an on-site parking bay.

The specifications for this type of delivery vehicle are shown in **Attachment F.**

Conservatively, a swept path analysis was undertaken with the use of the swept path computer software the analysis of which is shown in **Attachment G** indicates that a 5.265 m delivery van can enter the site's access, manoeuvre on site to then exit from the site in a forward manner.

A ground clearance assessment has been undertaken with the use of the AutoTURN computer software to examine whether a 5.265 m van would scrape its underside along the ramp.

The analysis, which is shown in **Attachment H**, indicates that no scraping would occur to the underside or the top of a 5.265 m van as it travels in both direction along the access ramp.

Reference to the specifications for the delivery vehicle indicate that this vehicle would have a height of 1.99 m.

The requirement to provide a minimum headroom clearance of 2.2 m along the access ramp and within the basement car park would enable this type of delivery vehicle to be accommodated within the basement car park.

To safely accommodate the delivery vehicles and to minimise the potential for conflict with parents dropping off/pick up the children, it is recommended that all deliveries restricted to occur after 9.30 am and prior to 3.30 pm.

Notwithstanding the above, it is recommended that a 'height indicator' bar and sign be placed at the entrance to the basement car park advising of the available headroom for all arriving passenger and delivery vehicles.

It is further recommended that a Car Park Management Plan be prepared specifying the maximum length and height of delivery van permitted to enter the basement car park. The Manager of the Child Care Centre is required to provide a copy of this Plan to any business providing services to the child care centre and for this Plan to be signed as an acknowledgement of the access arrangements which apply.

5.2 Refuse

The wheelie bins will be used to service the Child Care Centre and will be stored adjacent to the lift in the basement car park. The bins will be serviced once per week by a private contractor outside of the centre's operating times.

The applicant indicates that a 6.4 m long refuse truck is proposed to service the refuse bins from the basement car park area. An example of a 6.4 m long waste wise mini refuse truck is shown in **Attachment J**.

The swept path assessment (refer **Attachment K**) indicates that a 6.4 m refuse truck is able to safely enter the car park in a forward manner, manoeuvre into and out of the car parking area to then exit from the car park in a forward manner.

It is noted that while the ramp gradients do not strictly comply with the that stated in AS 2890.2 (2018) for a Single Rigid Vehicle, a ground clearance assessment (refer **Attachment L**) indicates that a 6.4 m refuse truck is able to safely travel along the access ramp (in both directions) without scraping the underside of the refuse truck.

Notwithstanding the above, it is recommended that the refuse bins are serviced outside of the operating hours of the child care centre when the use is not operating to minimise the potential for conflict between a refuse truck and motorists entering/exiting the car park access.

5.3 Traffic Impact

The anticipated traffic generation for the proposed child care centre can be determined based upon case study survey data documented in the RTA NSW 'Guide to Traffic Engineering Developments' (October 2002), which states that, for long day care centres, the traffic generation rates correspond to 0.8 vehicle trips per child during the morning drop off period, (7 am to 9 am) and a traffic generation rate of 0.7 vehicle movements per child during the late afternoon pick up period (4 pm to 6 pm).

Application of the traffic generation rates to the proposed development indicates that, during the am peak hour, there will be around 35 vehicle movements (17 entry/18 exit movements) and during the pm peak hour, there will be around 31 vehicle movements (15 entry/16 exit movements).

Traffic generated by the parents and staff will be minimal and is not expected to adversely impact upon the safety or operation of the surrounding road network.

6. CONCLUSIONS AND RECOMMENDATIONS

Having regard to the above, it is concluded that:

- The proposed on-site provision of 11 spaces inclusive of a disabled bay satisfies the development's parking requirements of 11 spaces as set out in the Canterbury-Bankstown DCP (2023) and the Building Code of Australia; and

- Traffic generated by the parents and staff will be minimal and is not expected to adversely impact upon the safety or operation of the surrounding road network.

Further, it is recommended that:

- the staff spaces are linemarked yellow with appropriate signage stating 'reserved - staff parking only'. Visitor parking bays are recommended to be signposted and linemarked appropriately;

- a priority warning light system be adopted at the top of the access ramp and within the basement car park providing advance warning for motorists turning into the access ramp from Segers Avenue (and vice versa);

- dynamic parking signage be located at the entrance to the basement parking area stating the number of available spaces;

- a height indicator bar be located along the access ramp;

- all deliveries restricted to occur after 9.30 am and prior to 3.30 pm;

- a Car Park Management Plan be prepared specifying the maximum length and height of delivery van permitted to enter the basement car park;

- the Manager of the Child Care Centre provide a copy of this Plan to any business providing services to the child care centre which is to be signed as an acknowledgement of the access arrangements which apply;

- the bins are serviced outside of the operating hours of the child care centre; and

- the sight line triangles to the immediate north and south of the crossover at the boundary line contain low level ground cover (0.3 m max height).

Evan Boloutis
EB Traffic Solutions Pty Ltd

B.Eng (Civil), MEng Sc (Traffic), MBA

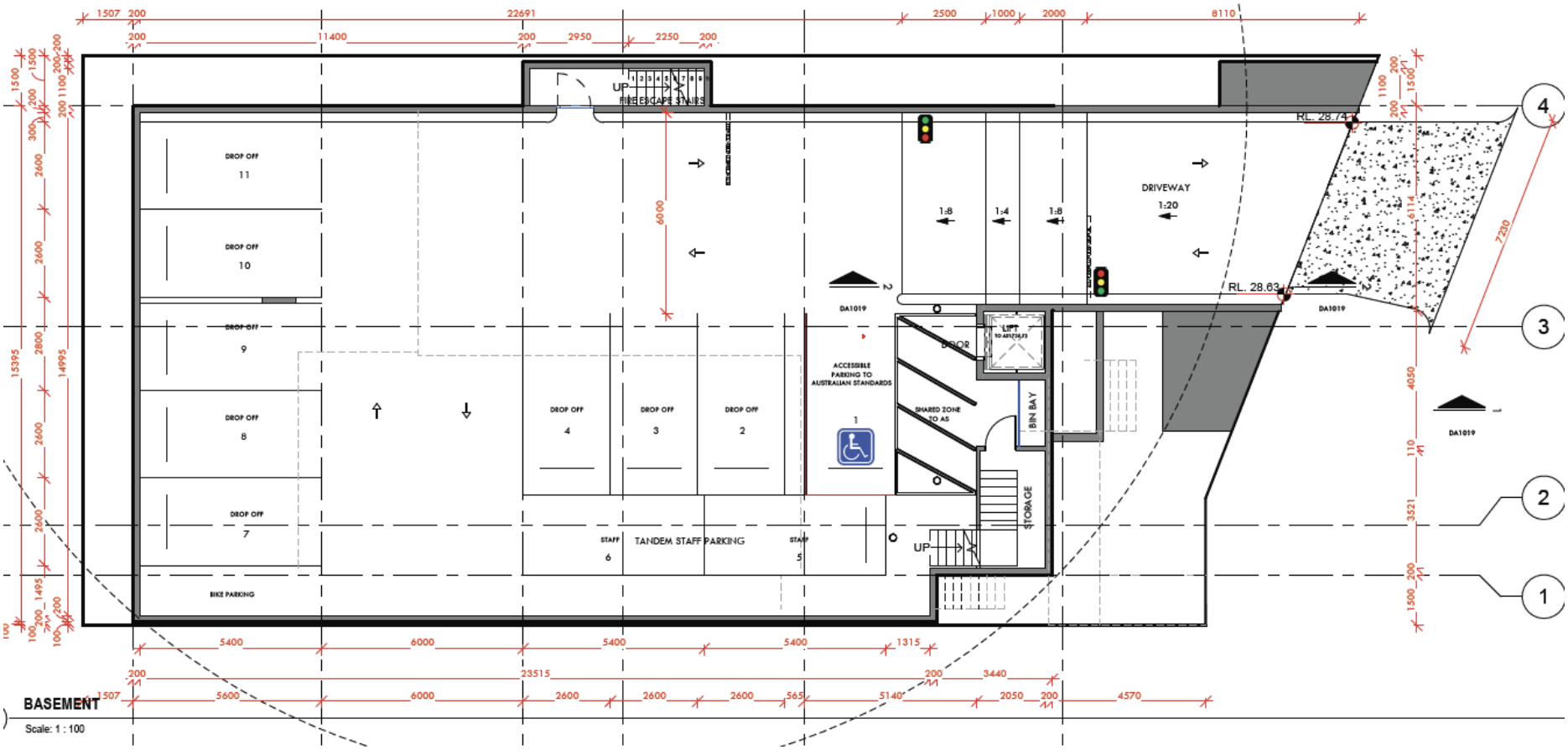
ATTACHMENT A

RESULTS OF CAR PARKING SURVEYS

ROAD LENGTH	Max. Spots	NUMBER OF PARKED CARS Thursday 5 September2024					
		8 am	10 am	12 noon	2 pm	4 pm	6 pm
SEGERS AVENUE							
east side							
1 hour, 8.30am-5.30 pm Mon-Fri, 8.30am-12.30 pm Sat	**10**	2	5	6	6	3	0
unrestricted	**18**	2	10	10	10	5	1
no stopping, 8.30-9.30am, 3-4 pm school days	**1**	0	0	0	0	0	0
west side							
1 hour, 8.30am-5.30 pm Mon-Fri, 8.30am-12.30 pm Sat	**9**	2	5	6	6	3	1
P 5 min, 8.30-9.30am, 3-4 pm school days	**12**	3	1	1	1	4	1
no stopping, 8.30-9.30am, 3-4 pm school days	**4**	0	0	0	0	0	0
unrestricted	**9**	1	3	3	3	2	0
GLOUCESTER AVENUE							
north side							
4 hour, 8.30 am-6.30 pm Mon-Fri	**8**	2	2	2	2	2	1
unrestricted	**18**	2	9	10	10	6	2
south side							
4 hour, 8.30 am-6.30 pm Mon-Fri	**14**	2	6	7	7	4	2
unrestricted	**8**	2	3	3	3	3	1
TOTAL	**111**	**18**	**44**	**48**	**48**	**32**	**9**

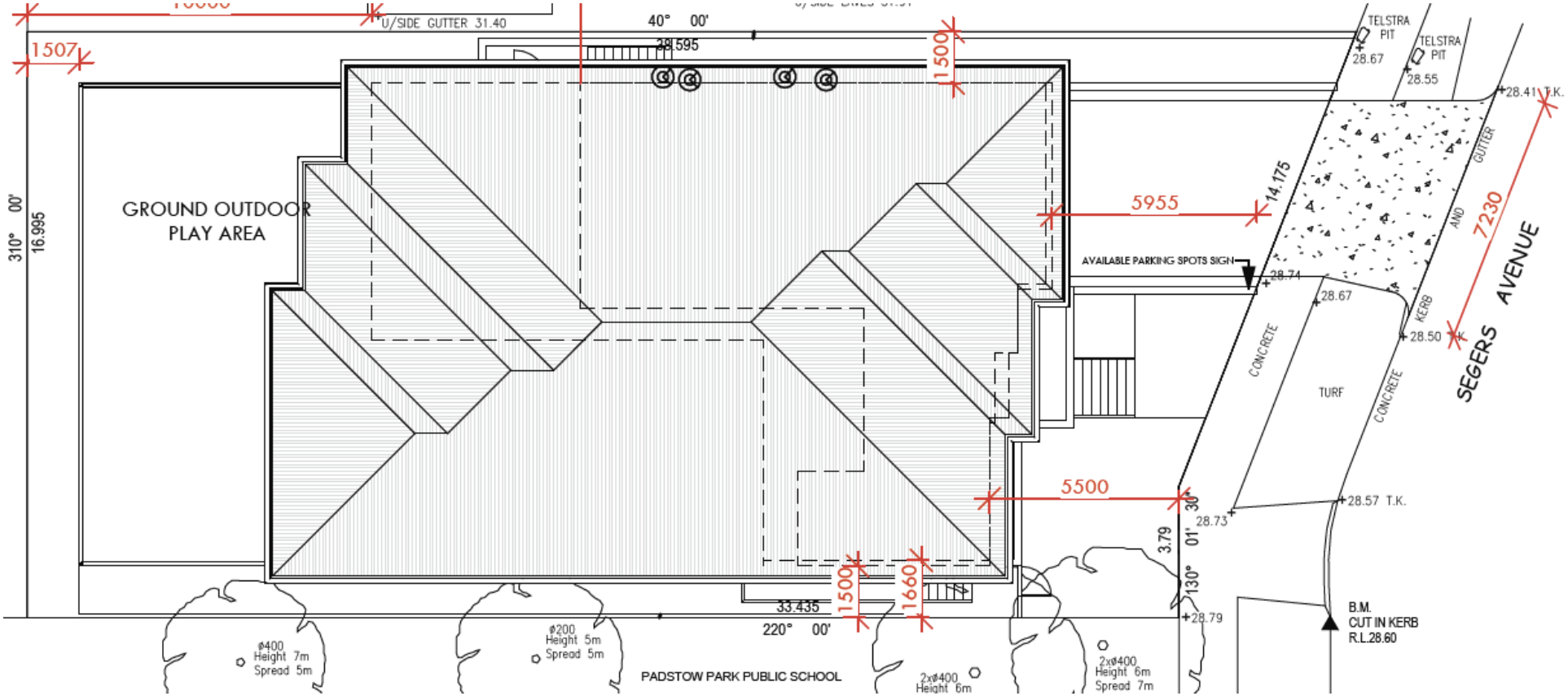
ATTACHMENT B

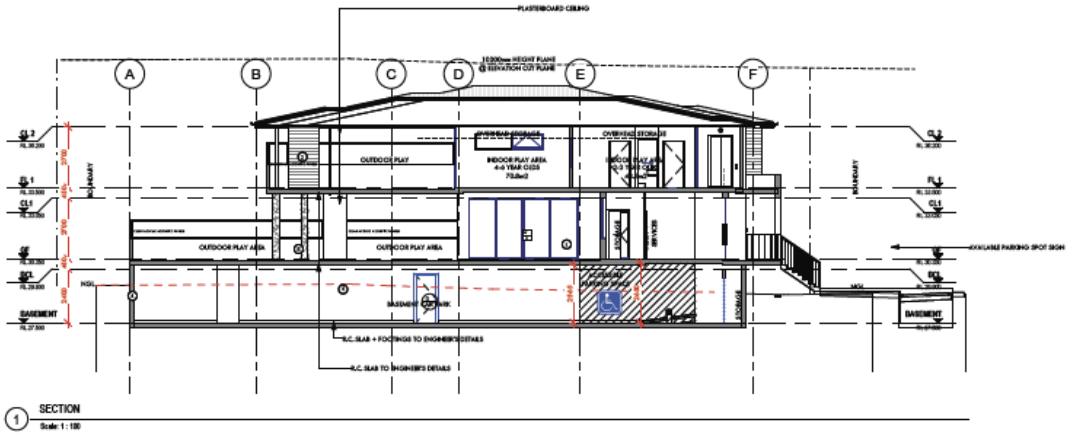
DEVELOPMENT LAYOUT PLANS



BASEMENT

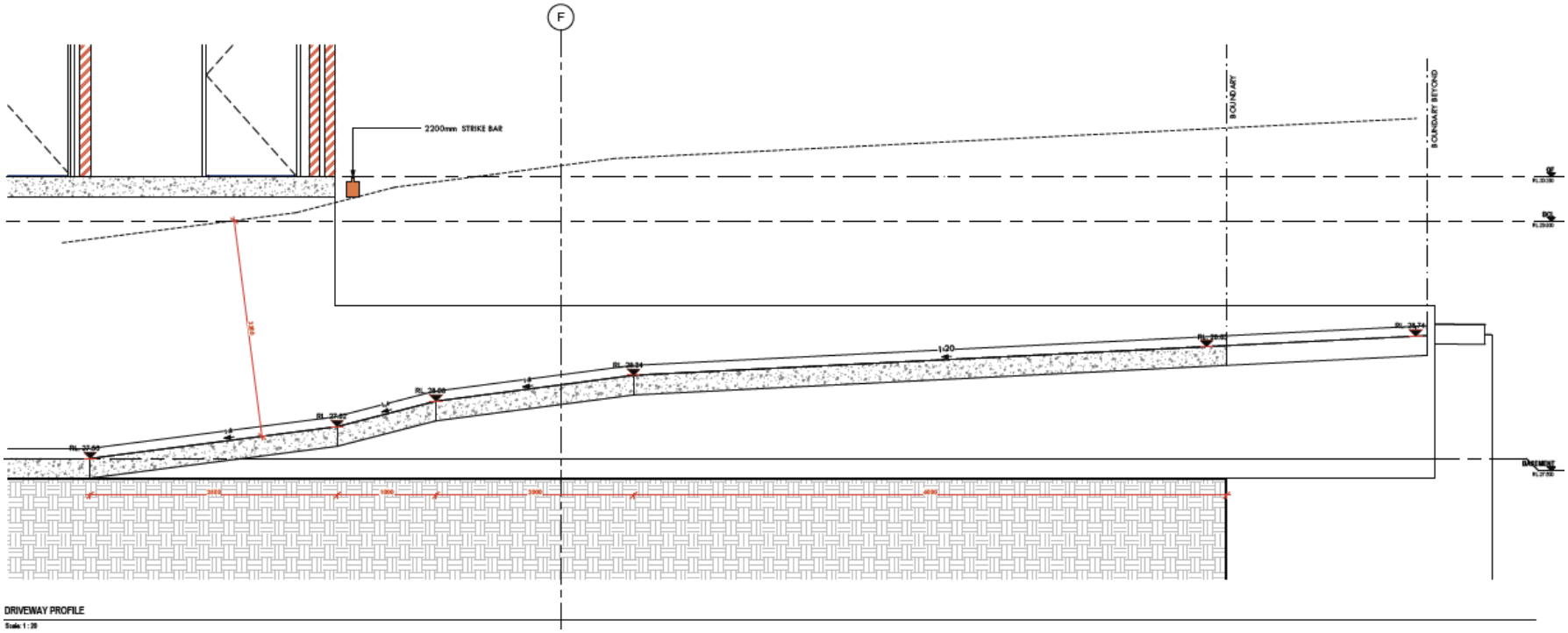
Scale: 1 : 100


1507
U/SIDE GUTTER 31.40
40° 00'
28.595
1500
TELSTRA PIT
28.67
TELSTRA PIT
28.55
28.41 T.K.
GUTTER AND KERB
7230
SEGERS AVENUE
310° 00'
16.995
GROUND OUTDOOR PLAY AREA
5955
14.175
AVAILABLE PARKING SPOTS SIGN
28.74
28.67
28.50
CONCRETE
TURF
CONCRETE
5500
28.57 T.K.
28.73
30°
01'
130°
3.79
28.79
B.M.
CUT IN KERB
R.L.28.60
1500
1660
33.435
220° 00'
ø400
Height 7m
Spread 5m
ø200
Height 5m
Spread 5m
PADSTOW PARK PUBLIC SCHOOL
2xø400
Height 6m
2xø400
Height 6m
Spread 7m



1 SECTION
Scale: 1 : 100

Wall Schedule	
Type Mark	Type
	<varies>
1	270mm CAVITY BRICK WALL
2	110mm TIMBER STUD WALL
4	200mm AFS RED/WALL CONCRET
5	AFS WALL 120
6	230mm BRICK WALL



DRIVEWAY PROFILE
Scale: 1 : 20

ATTACHMENT C

VEHICLE PRIORITY SYSTEM

TPSGROUP

TPS VEHICLE PRIORITY SYSTEM

24hr Priority Entry – 1 Beam Sensor

TPSGROUP

Equipment Specifications for Vehicle Priority System

Description	QTY
Ground Level	
200mm Red/Green Traffic Lights	1
Basement 1	
200mm Red/Green Traffic Lights	1
TOF Beam Sensor and enclosure	1
Vehicle Priority Controller	
Outdoor Housing	1
Programmable Logic Controller PLC	1
Power Supply	1

TPSGROUP

Hours of operation:

24hrs Priority = Green for Entry into Carpark

Logic:

- Ground Level – Default Green Lamp for Entry
- B1 Level – Default Red Lamp for Exit
- ➔ If presence on exit B1 detected via TOF sensor for period of 3s Switch Ground Level Lamp state to Red for period of 20s and flash Red Lamp on B1.
- ➔ Simultaneously, if presence on exit B1 for a further 10 seconds switch B1 Level Lamp state to Green and hold state of both lamps. (Red on Entry Ground Level, Green on Exit Basement Level)
- ➔ When no further presence on exit B1, start timer for period of 10 seconds.
- ➔ Once timed out, switch B1 Level Lamp state to Red and start timer for period of 10 seconds.
- ➔ Once timed out, switch Ground Level Lamp state to Green.

Operating Procedure:

The system will operate with a default green lamp for priority for vehicles to enter the property. The traffic light on Ground level will display green lamp for the driveway entry at all times unless a vehicle is detected on the B1 vehicle holding area (TOF Beam sensor).
When a vehicle is detected via the vehicle detection beam located in the vehicle holding area on B1, the lamp state will switch to a green lamp for vehicles exiting the car park and red lamp at street level. This state will run for a nominated timeout period, which will allow a vehicle on the Basement 1 level to exit the car park.

Vehicles wishing to enter the property at this time will be required to wait on street.

ATTACHMENT D

SWEPT PATH ANALYSIS (B85 CAR)

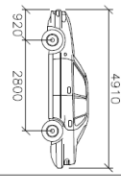
12 Segers Avenue, Padstow (NSW)

Scale 1:125 @ A3
Swept Path Analysis (B85 Car)
Plan prepared by EB Traffic Solutions Pty Ltd

50°

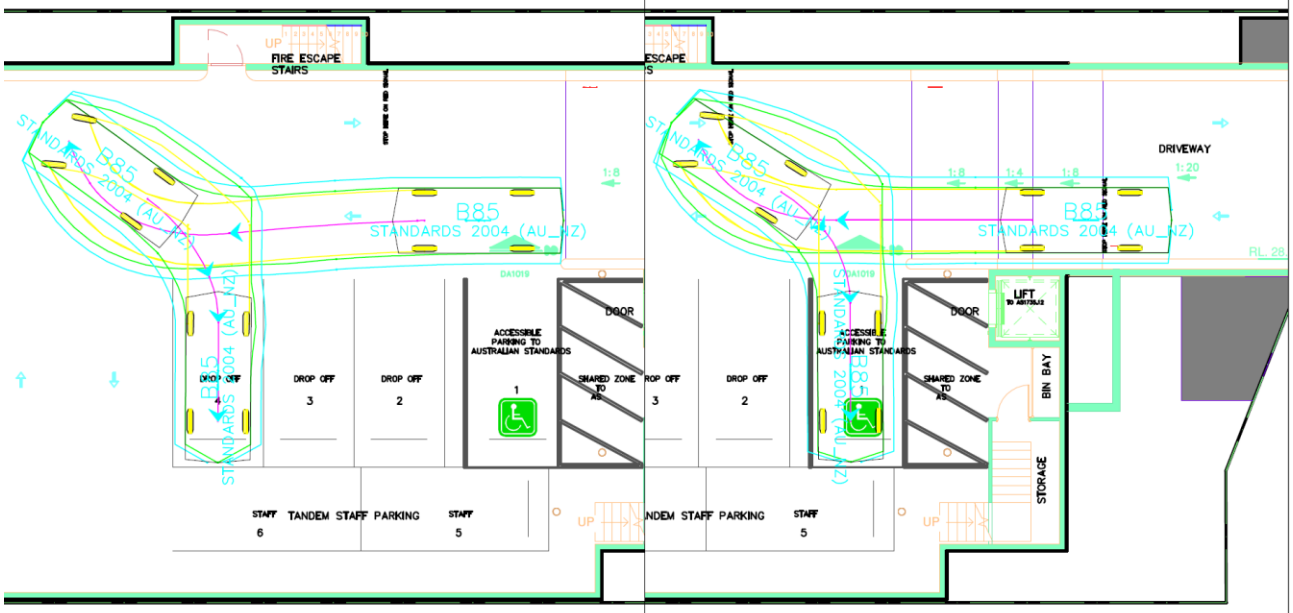
A3.02
30/09/2024

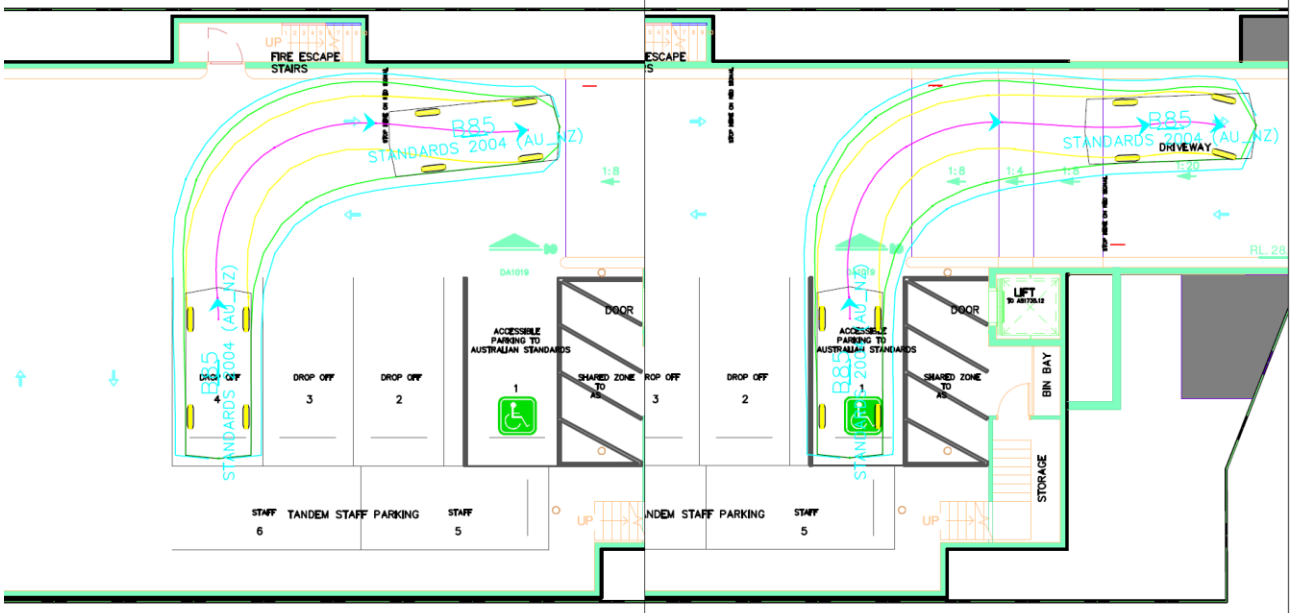
B85 mm
Width : 1870
Track : 1770
Lock to Lock : 6.0
Steering Angle : 34.1



Design Vehicle

EB Traffic Solutions





EB Traffic Solutions

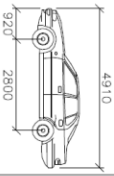
12 Segers Avenue, Padstow (NSW)

Scale 1:125 @ A3
Swept Path Analysis (B85 Car)
Plan prepared by EB Traffic Solutions Pty Ltd

50°

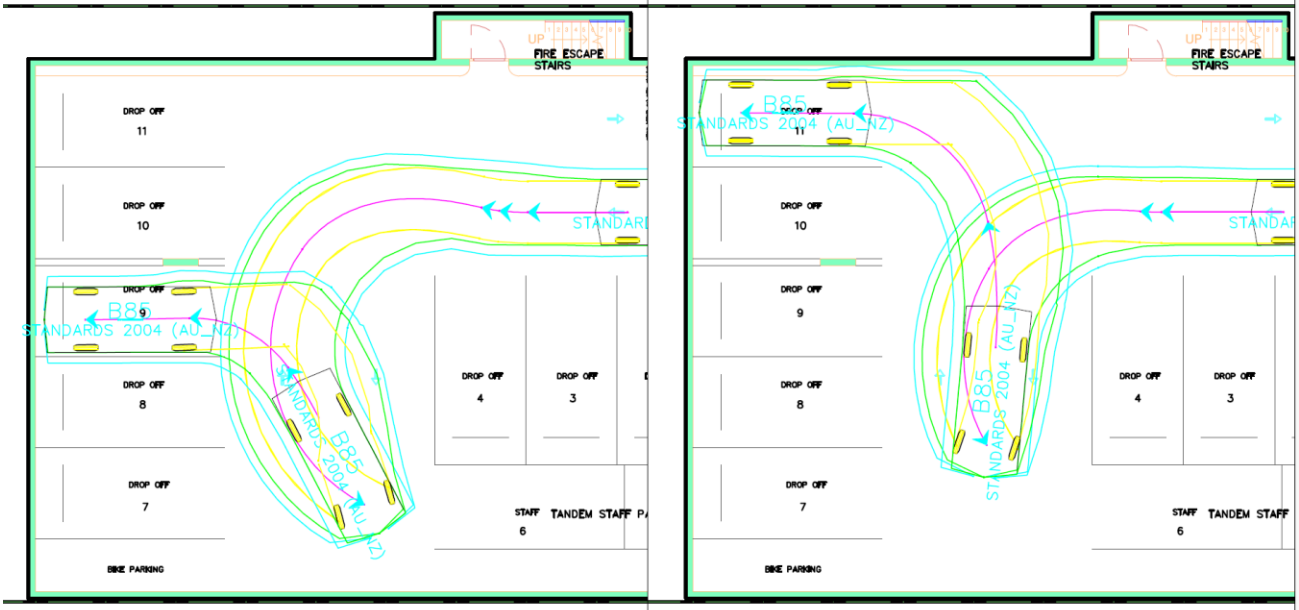
A3.03
30/09/2024

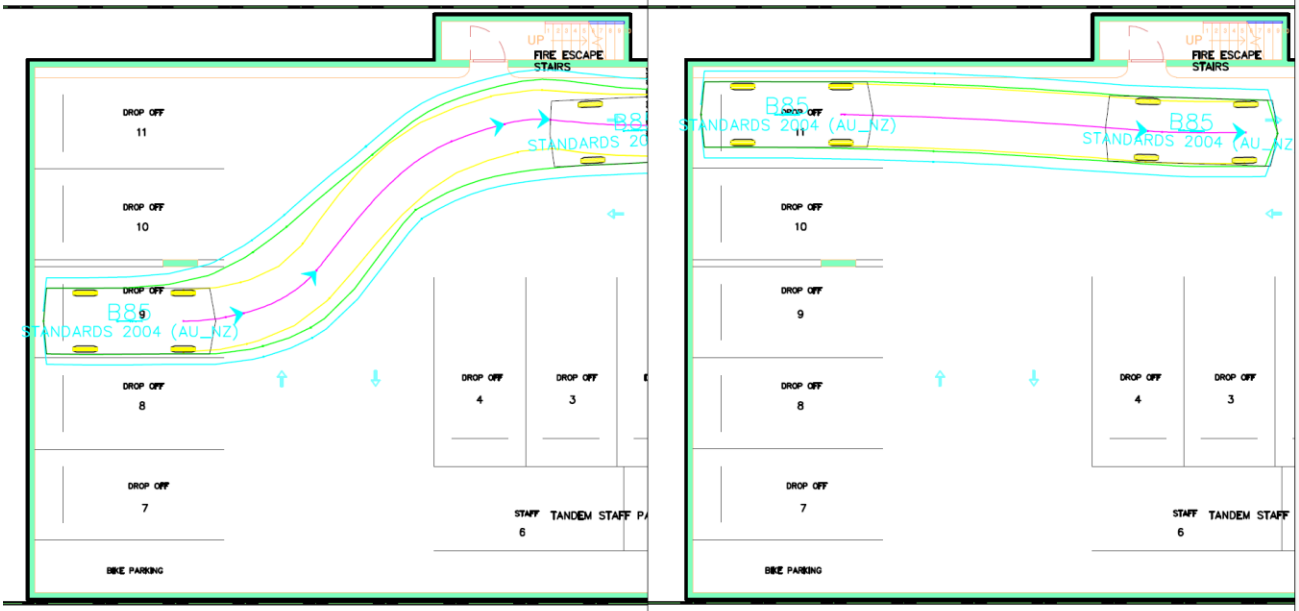
B85 mm
Width : 1870
Track : 1770
Lock to Lock : 6.0
Steering Angle : 34.1



Design Vehicle

EB Traffic Solutions





EB Traffic Solutions

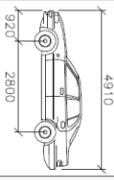
12 Segers Avenue, Padstow (NSW)

Scale 1:125 @ A3
Swept Path Analysis (B85 Car)
Plan prepared by EB Traffic Solutions Pty Ltd

50m

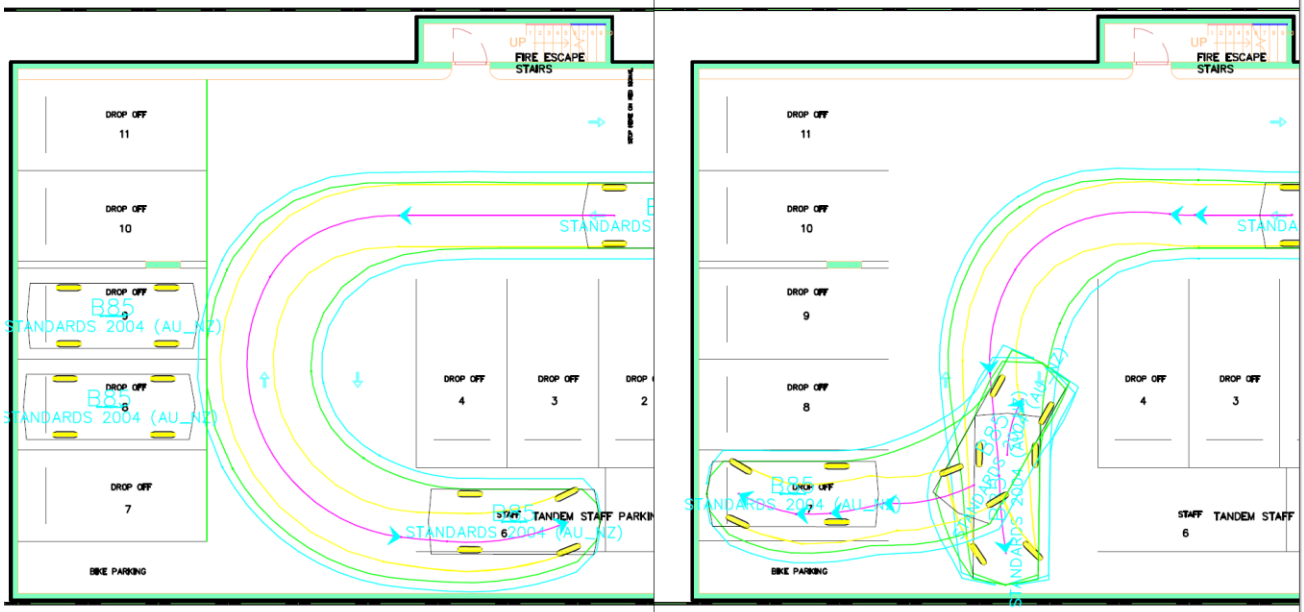
A3.04
30/09/2024

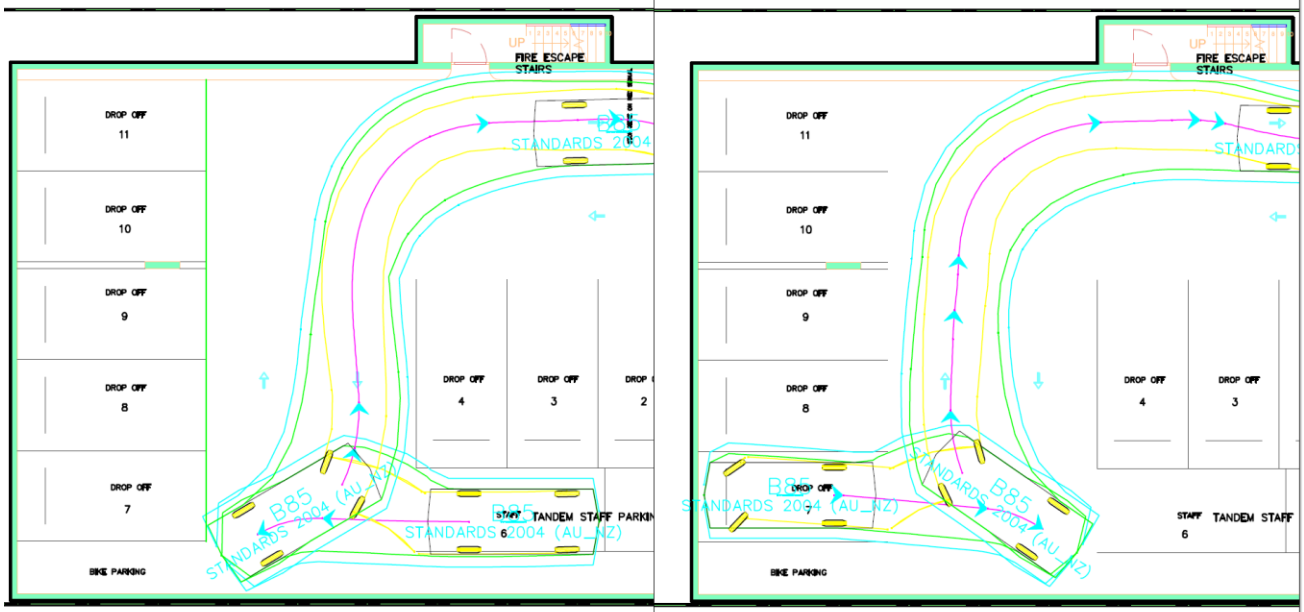
B85 mm
Width : 1870
Track : 1770
Lock to Lock : 6.0
Steering Angle : 34.1



Design Vehicle

EB Traffic Solutions

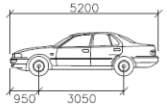




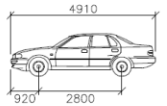
EB Traffic Solutions

Traffic Solutions

Design Vehicle



B99	mm
Width	: 1940
Track	: 1840
Lock to Lock	: 6.0
Steering Angle	: 33.9



B85	mm
Width	: 1870
Track	: 1770
Lock to Lock	: 6.0
Steering Angle	: 34.1

A3.01

30/09/2024

320°

12 Segers Avenue, Padstow (NSW)

Scale 1:125 @ A3
Swept Path Analysis (B85 & B99 Car)
Plan prepared by EB Traffic Solutions Pty Ltd

LOT 29
D.P.20572

P.

No.10
BRICK COTTAGE
ROOF RIDGE 34.84

CLAD GARAGE

U/SIDE GUTTER 31.40

U/SIDE EAVES 31.94

FIRE ESCAPE STAIRS

B99 STANDARDS 2004 (AU_NZ)

B85 STANDARDS 2004 (AU_NZ)

DRIVEWAY

AVAILABLE PARKING SPOTS SIGN

LIFT

DOOR

ACCESSIBLE PARKING TO AUSTRALIAN STANDARDS

SHARED ZONE TO AS

BIN BAY

STORAGE

DROP OFF 4

DROP OFF 3

DROP OFF 2

STAFF 6

TANDEM STAFF PARKING

STAFF 5

CONCRETE

TURF

TELSTRA PIT

Segers Avenue

40

B.M.
CUT IN
RL 28.60

PADSTOW PARK PUBLIC SCHOOL

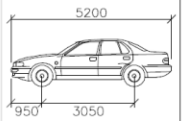
LOT 17
D.P.16608

ATTACHMENT E

GROUND CLEARANCE ASSESSMENT (B99 CAR)

Traffic Solutions

Design Vehicle

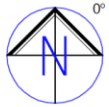


B99 mm

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

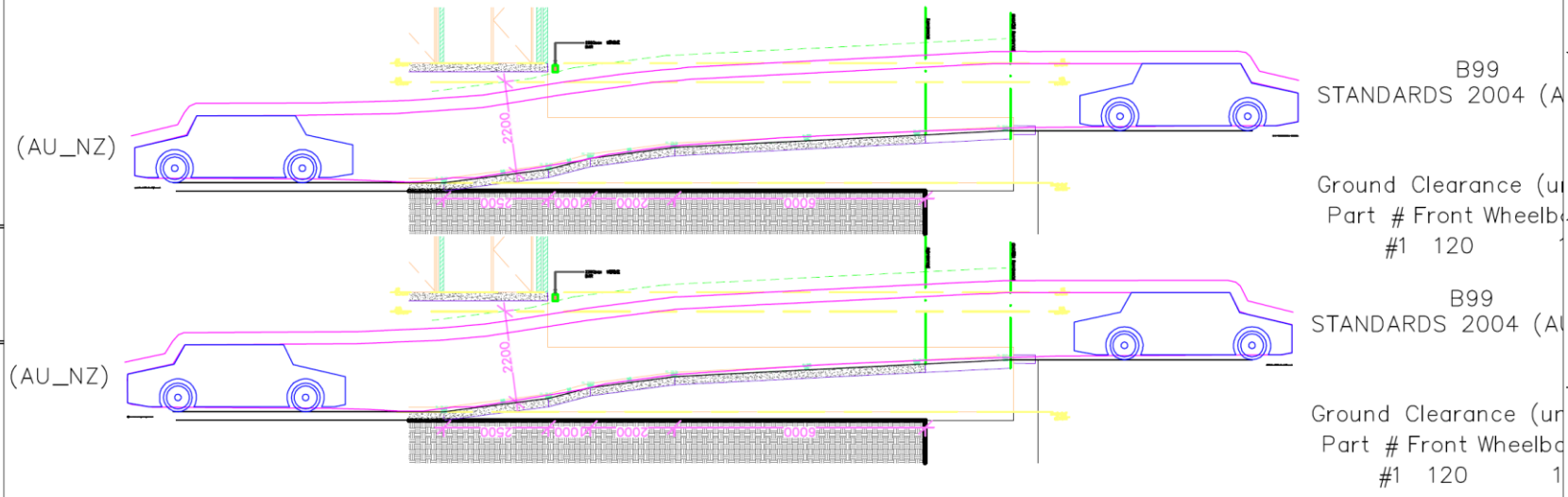
A3.05

30/09/2024



12 Segers Avenue, Padstow (NSW)

Scale 1:100 @ A3
Ground Clearance Assessment (B99 Car)
Plan prepared by EB Traffic Solutions Pty Ltd



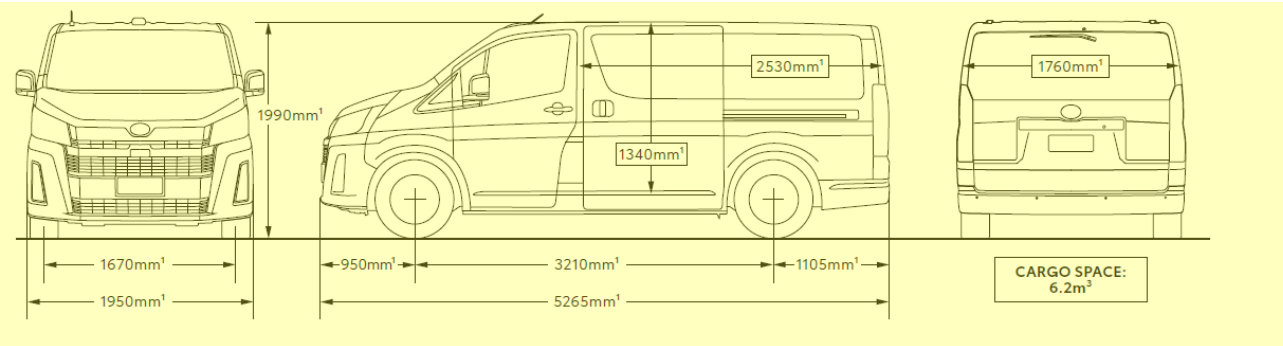
ATTACHMENT F

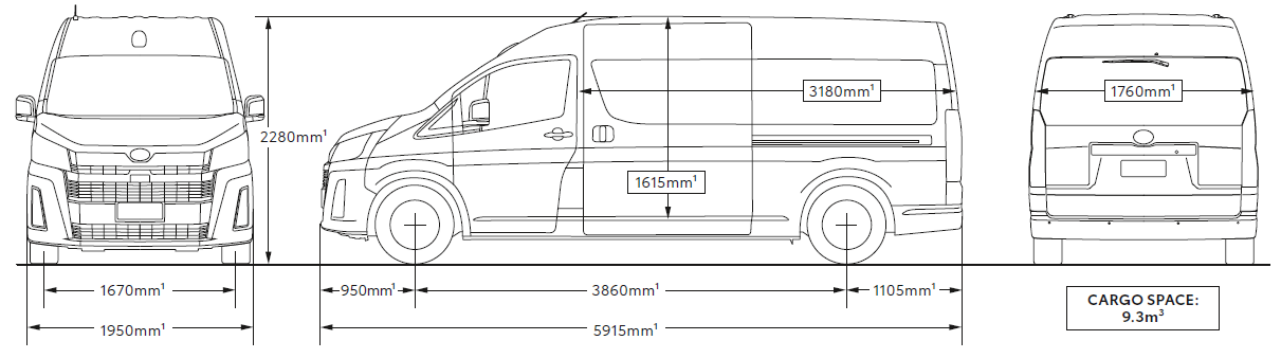
SPECIFICATIONS FOR A 5.26 M DELIVERY VEHICLE

HiAce

TOYOTA

Please Note: information is accurate as at May 2022.
Specification and imagery are indicative and should only be used as a guide. Vehicle and accessory specification, features, colour and trim may differ at the time of vehicle delivery.





HIACE MODEL		LWB Van turbo diesel manual	LWB Van turbo diesel automatic	LWB Crew Van turbo diesel automatic	SLWB Van turbo diesel automatic	Commuter turbo diesel automatic	Commuter GL turbo diesel automatic
ENGINE	Engine code	1GD-FTV	1GD-FTV	1GD-FTV	1GD-FTV	1GD-FTV	1GD-FTV
	Engine description	4 cylinders	4 cylinders	4 cylinders	4 cylinders	4 cylinders	4 cylinders
	Displacement (cm³)	2755	2755	2755	2755	2755	2755
	Maximum power (kW/rpm)	130/3400	130/3400	130/3400	130/3400	120/3600	120/3600
	Torque (Nm/rpm)	420/1400-2600	450/1600-2400	450/1600-2400	450/1600-2400	420/1600-2200	420/1600-2200
	Bore x stroke (mm)	92.0 x 103.60	92.0 x 103.60	92.0 x 103.60	92.0 x 103.60	92.0 x 103.60	92.0 x 103.60
	Compression ratio (:1)	15.6	15.6	15.6	15.6	15.6	15.6
	Diesel Particulate Filter (forced burn off) switch	•	•	•	•	•	•
FUEL	Fuel consumption² (combined L/100km)	7.5L	8.2L	8.4L	8.4L		
STEERING	Steering gear type	Rack and pinion					
	Steering gear ratio	15.6					
BRAKES	Front	Ventilated disc brake with floating caliper 2-cylinder					
	Rear	Leading-trailing drum brake	Ventilated disc brake with floating caliper 1-cylinder				
	Parking brake	Hand lever type					
SUSPENSION	Suspension	Front: Macpherson Strut / Rear: Leaf spring rigid axle					
WEIGHTS AND CAPACITIES	Gross Vehicle Mass¹ (GVM) (kg)	3300	3300	3300	3500	3710	3720
	Gross Combined Mass¹ (GCM) (kg)	5200	4800	4800	5000	5210	5220
	Maximum kerb weight¹ (kg)	2240	2225	2350	2365	2630	2680
	Towing capacity³ (braked kg/unbraked kg)	1900/400	1500/400				
	Fuel capacity (L)	70					

ATTACHMENT G

SWEPT PATH ANALYSIS - 5.26 M DELIVERY VEHICLE

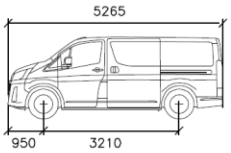
12 Segers Avenue, Padstow (NSW)

Scale 1:125 @ A3
Swept Path Analysis (Delivery Van)
Plan prepared by EB Traffic Solutions Pty Ltd

0°

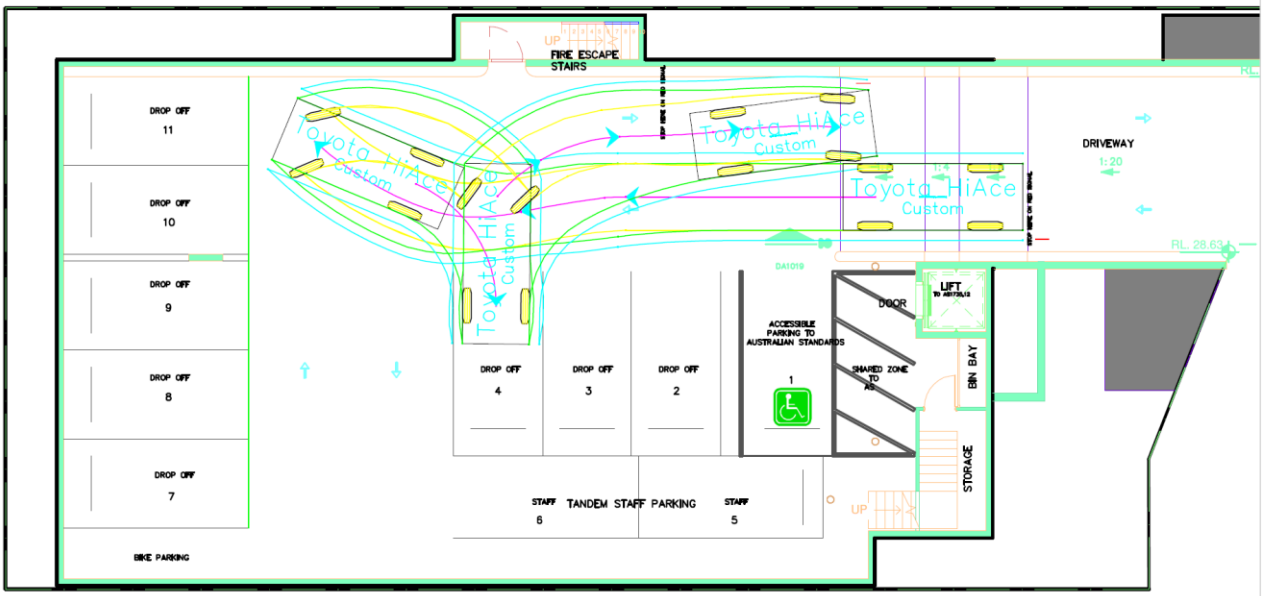
A3.05
30/09/2024

Toyota HiAce mm
Width : 1950
Track : 1950
Lock to Lock Time : 6.0
Steering Angle : 40.0



Design Vehicle

EB Traffic Solutions

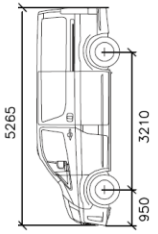


ATTACHMENT H

GROUND CLEARANCE ASSESSMENT (5.26 M DELIVERY VEHICLE)

Traffic Solutions

Design Vehicle



Toyota HiAce mm

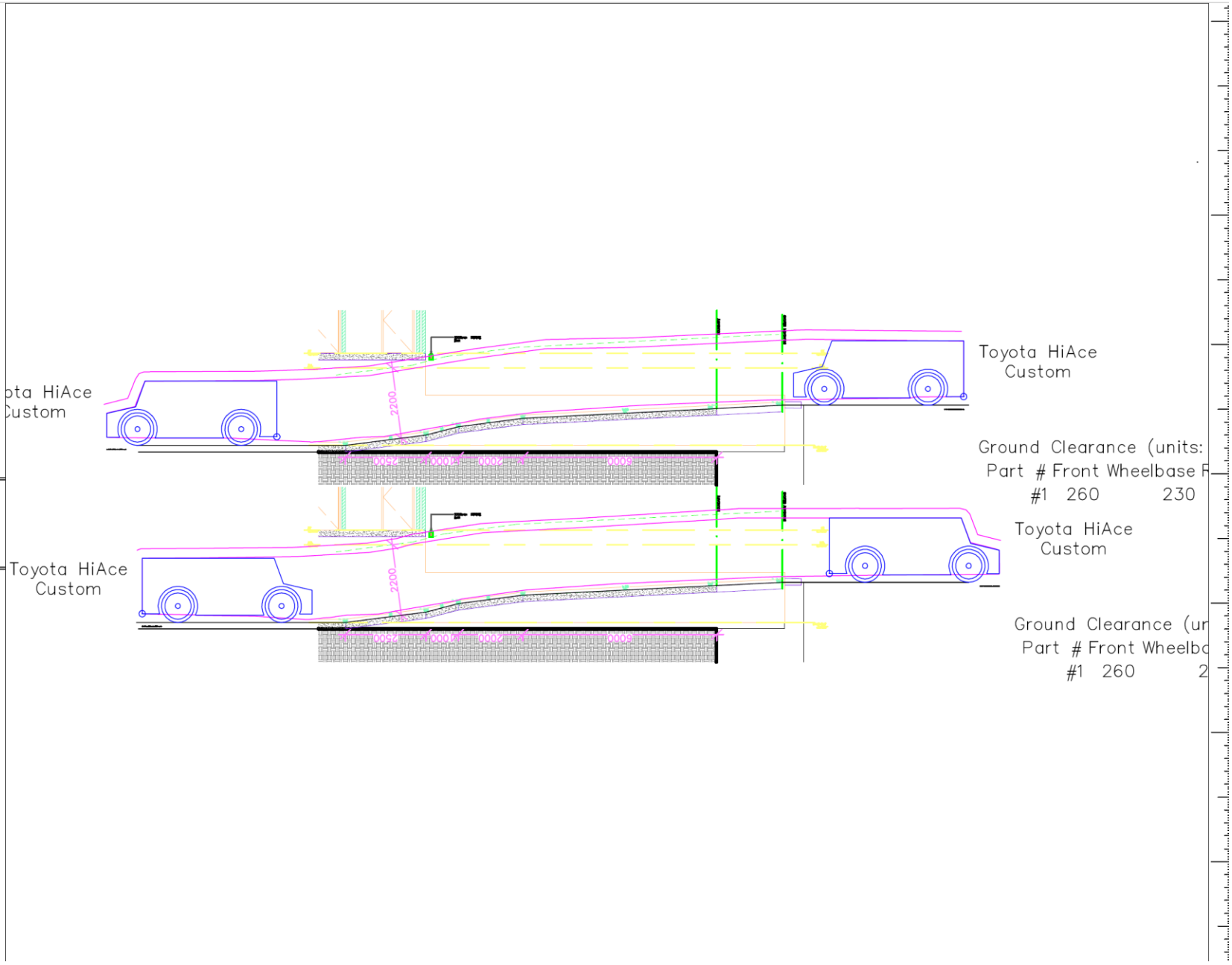
Width	: 1950
Track	: 1950
Lock to Lock Time	: 6.0
Steering Angle	: 40.0

A3.07

30/09/2024

12 Segers Avenue, Padstow (NSW)

Scale 1:100 @ A3
Ground Clearance Assessment (Delivery Van)
Plan prepared by EB Traffic Solutions Pty Ltd



ATTACHMENT J

6.35 M LONG TRUCK WASTE WISE MINI REFUSE TRUCK

WASTE WISE environmental®

Introducing the

WASTE WISE MINI

REAR LOADER

Waste Wise Environmental® introduced the first MINI rear loader vehicle into Australia in September 2011.

The success of the MINI rear loader has been well documented over the first 12 months of service. The ability to manoeuvre in confined areas within basement car parks, where bin rooms are located, and laneways where other vehicles find difficulty in reversing is unique, but achievable for this compact unit.

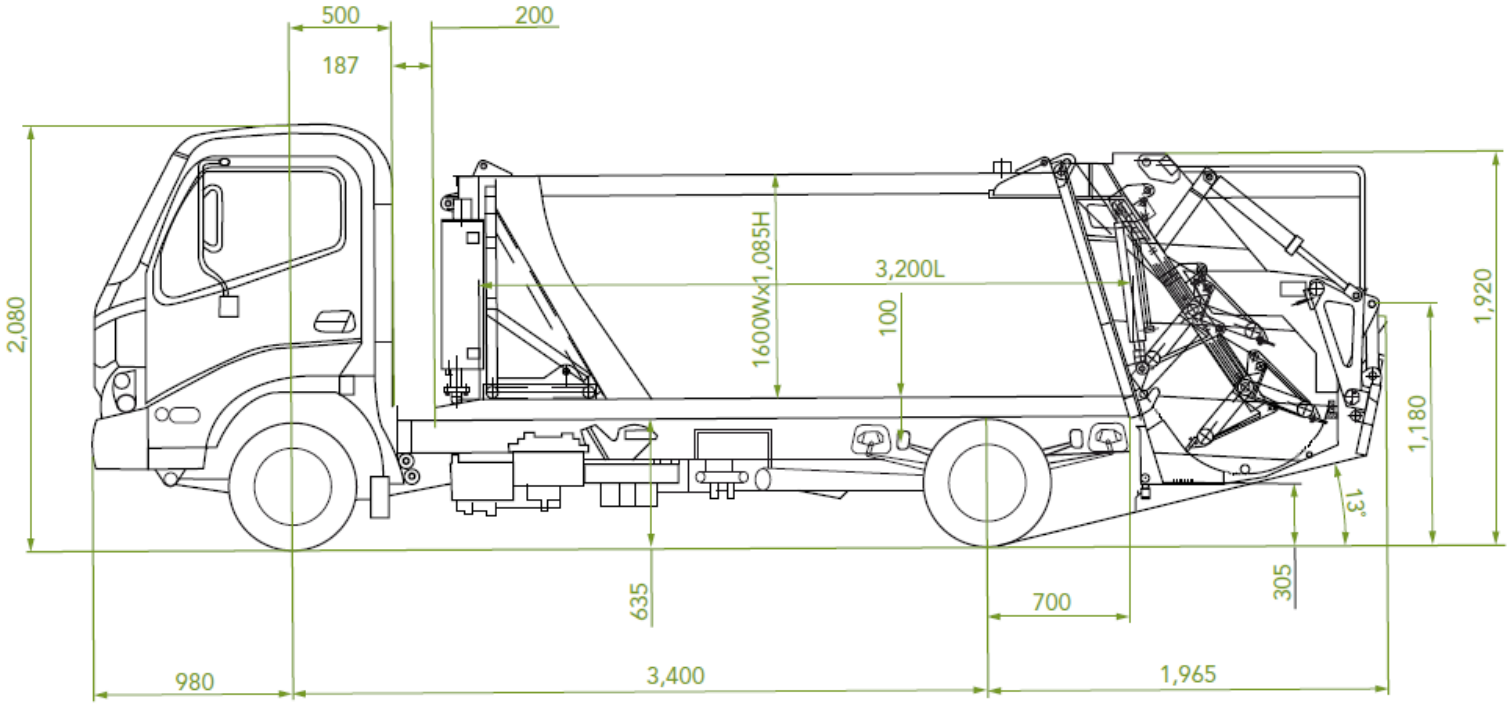
With an overall height of just 2.08 metres and length of 6.40 metres, this vehicle can enter most car parks, going down three (3) basement levels or climbing up eight (8) car park levels to empty MGB 240 litre & MGB 660 litre bins within its own height capacity.

MGB 1100 litre bins will be lifted higher than the vehicle and generally find a spot within the complex to do so.

The MINI rear loader is valuable to all: architects, developers, owners corporations (space saving and cost saving) and councils (no bins at kerbside affecting the streetscape).

The Waste Wise Environmental® fleet of MINI'S has successfully demonstrated its ability as the most valuable & versatile MINI rear loader on the road today. Not only in confined areas, but also under standard rear loader conditions at street level.

Vehicle Dimensions



ATTACHMENT K

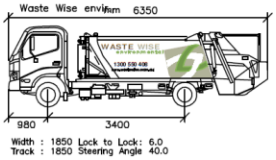
SWEPT PATH ANALYSIS – 6.4 M WASTE WISE REFUSE TRUCK

12 Segers Avenue, Padstow (NSW)

Scale 1:125 @ A3
Swept Path Analysis (Refuse Truck)
Plan prepared by EB Traffic Solutions Pty Ltd

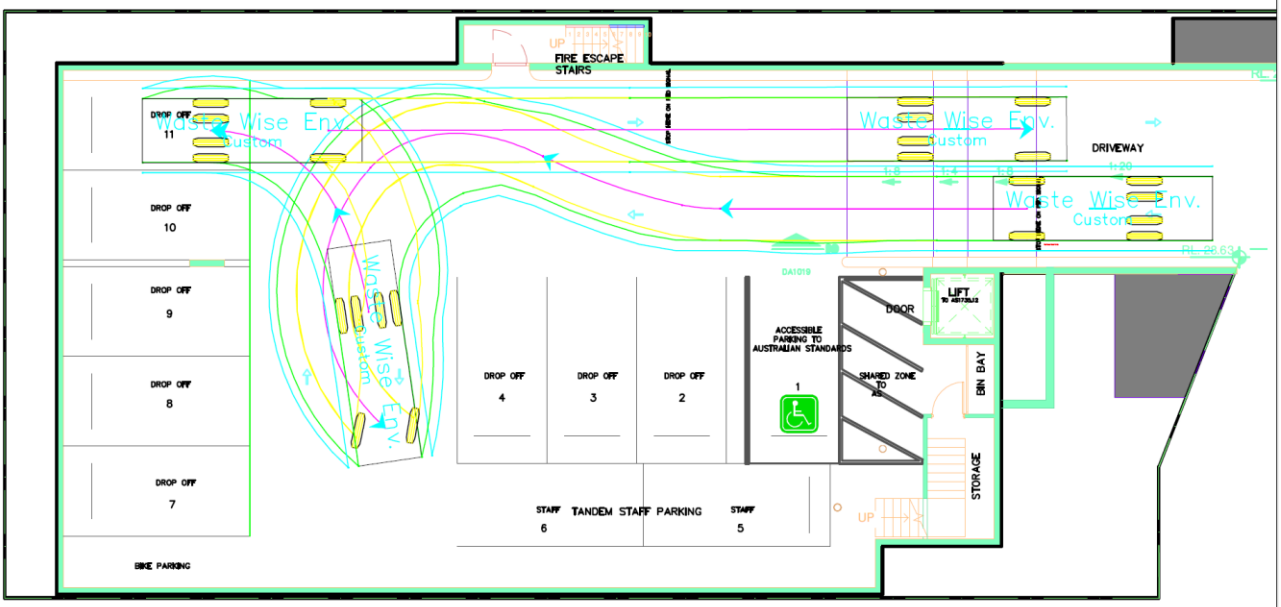
50°

A3.08
01/10/2024



Design Vehicle

EB Traffic Solutions



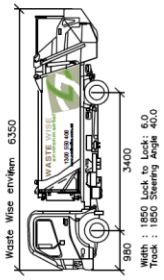
EB Traffic Solutions

ATTACHMENT L

GROUND CLEARANCE ANALYSIS – 6.4 M WASTE WISE REFUSE TRUCK

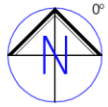
Traffic Solutions

Design Vehicle



A3.09

01/10/2024



12 Segers Avenue, Padstow (NSW)

Scale 1:100 @ A3
Ground Clearance Assessment (Refuse Truck)
Plan prepared by EB Traffic Solutions Pty Ltd