

TRAFFIC AND PARKING ASSESSMENT REPORT MAR-2022

Development Site:

14-22 The River Road, Revesby, NSW




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Overland Flow Study Report

for

Development Site at:

14-22 The River Road, Revesby, NSW

Project	Traffic and Parking Assessment	Ref. No. TR229_2110
Client		
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1. INTRODUCTION

1.1 Introduction

HECARD Consult was commissioned to assess the impact of traffic volume associated with the proposed developments and to prepare a traffic report for the proposed development at 14-22 The River Road, Revesby, NSW

This traffic and parking impact assessment (TIA) report relates to a proposed car park for Sikh Temple located at City of Canterbury Bankstown, Revesby. It has been prepared to accompany a development application to be submitted to City of Canterbury Bankstown. The proposed new car park on residue lot 14,15, & 16 in DP 731449 and removal of 2 trees. Details of the proposal are shown in Consolidation Plan drawing/Project No. CV 229_2110 issue B dated 30/1/2022 prepared by HECARD Consult Pvt Ltd.

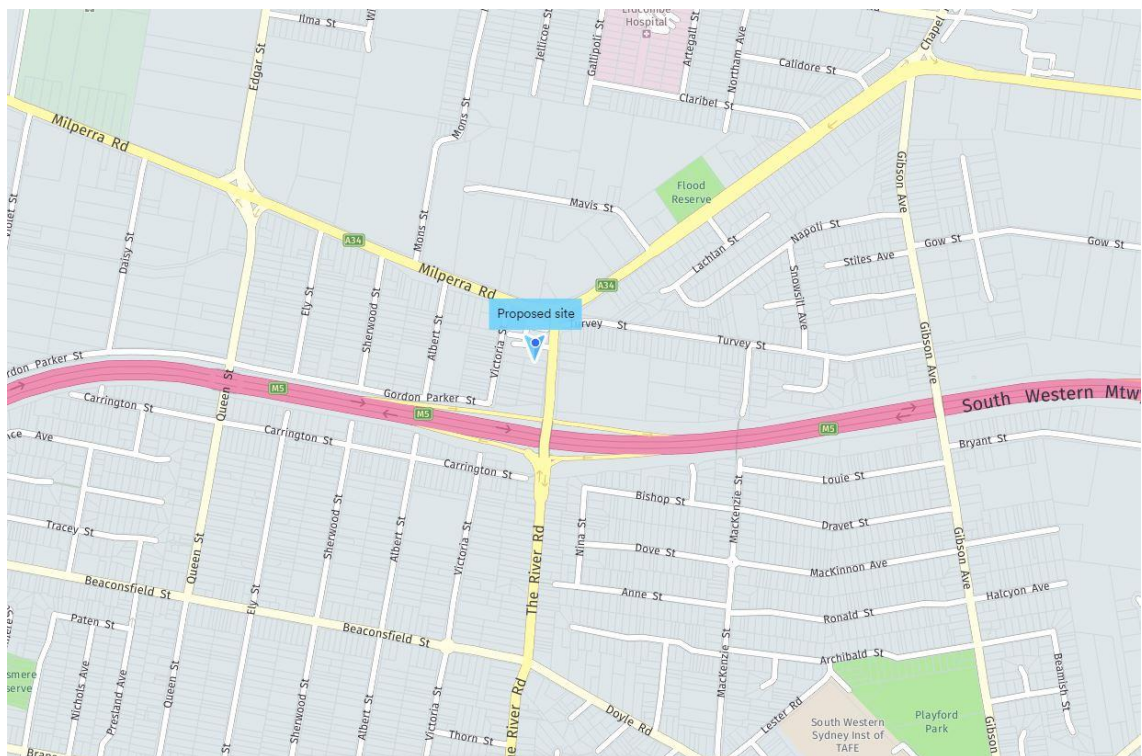
HECARD Consult Pvt Ltd has prepared this report on behalf of Sikh Temple. It assesses the traffic and parking implications of the proposed development and is set out as follows:

- Chapter 2 discusses the existing conditions including a description of the subject site
- Chapter 3 describes the proposed development
- Chapter 4 assesses the proposed on-site parking provision and the internal car park layout
- Chapter 5 examines the traffic generation and its impact
- Chapter 6 provides a high-level review of the traffic effects during the construction period, and
- Chapter 7 presents the conclusions of the assessment.

2. SITE DESCRIPTION

2.1 Site Details

The proposed site is located at 14 -22 The River Road, Revesby NSW, and falls within the City of Canterbury Bankstown local government area. The site area of approximately 6763 sqm. It consists of 1 vacant lot with frontages to existing car park connect to The River Road. The site is situated on the western side of the River Road, Revesby between Milperra Road to the north and Gordon Parker Street to the south. The site has a secondary frontage to Victoria Street to its west. The site adjoins low density residential dwellings to the north, south and west of the site and detached dwellings across The River Road to its east. Sir Joseph High School exists further east of the site and across The River Road. Situated on the site is a Sikh Temple building along with an attached single storey kitchen building to the north of Temple and on-grade car parking and manoeuvring area on the remainder lot. Figure 2.1 shows the location plan of the development site.



A



B



C

Figure 2. 1 Location of site A) Location Plan, B) The River Road access, and C) Victoria Street access

2.2 Road Network

The road network adjacent to the site comprises The River Road, Victoria Street. Below is a brief description of these roads.

2.2.1 The River Road

The River Road is a state-controlled road under the jurisdiction of Road and Maritime Services NSW. It connects the Henry Lawson Drive on South and Canterbury Road on the North at Revesby. It is generally aligned in a north-south direction. In the vicinity of the site, it is configured with two lanes in each direction and kerbside parking are

restricted. The river Road has posted 60km/hr speed limit. In addition, school speed 40km/hr sign are also marked at close proximity of the project and speed restricted from 8:00 – 9:30 am and 2:30 – 4 pm school days.

2.2.2 Victoria Street

Warne Street is a local two-lane, two-way undivided road under the administration of City of Canterbury Bankstown. It is aligned to North-South direction with a default speed limit of 50km/hr. Unrestricted kerbside parking is available on both sides of the road. The intersection of Canterbury Road is left out and left into the Victoria Street.

2.3 Traffic Flows

Canterbury-Bankstown Council provided the weekday and weekend traffic counts at the following nearby project area:

- The River Road – North Bound – Both lanes
- Victoria Street – Both Direction.

2.3.1 Existing Traffic Characteristics

Seven-day automatic tube traffic surveys of River Road and Victoria Street traffic flow adjacent to the subject site are commissioned in order to accurately obtaining existing flow characteristics. The surveys were undertaken between 12th Feb – 18th Feb, 2022, inclusive. The following sub sections provide a summary of the survey results.

The results of the 7-days tube counts are as follows:

- The average North bound kerb side traffic flow were 4650 vehicles per day (vpd) and Northbound middle lane traffic flow were 6806 vehicles per day (vpd). This tube count was taken at near 22 The River Road-both Lane.
- The total average northbound traffic flow were 11,457 vehicles per day (vpd) 22 The River Road-both Lane. This tube count was taken at near 22 The River Road-both Lane.
- The average two-way traffic flows were 689 per day (vpd). This tube count was taken at near Northern side of 7 Victoria Street.

2.3.2 Weekdays Peak Traffic Volume

Whilst the subject development is expected to generate limited activity during weekday commuter period. Table 2.1 shows the abstract of existing weekdays peak hour commuter.

Table 2. 1 Existing Weekday Commuter Peak Hour Subject to Site

	Northbound	Southbound
Victoria St		
AM Peak (9 AM – 10 AM)	15	21
PM Peak (5 PM – 6 PM)	10	18
The River Road		
AM Peak (9 AM – 10 AM)	821	
PM Peak (5 PM – 6 PM)	687	

2.3.3 Saturday Traffic Volume

The Saturday evening worship service running between 5 PM to 6 PM is anticipated to generate the most traffic in terms of regular activities. Table 2.2 shows existing Saturday traffic characteristics

Table 2. 2 Existing Saturday Commuter Peak Hour Subject to Site

	Northbound	Southbound
Victoria St		
AM Peak (9 AM – 10 AM)	15	21
PM Peak (5 PM – 6 PM)	10	18
The River Road		
AM Peak (9 AM – 10 AM)	445	
PM Peak (5 PM – 6 PM)	597	

2.3.4 Vehicle Speed

Table 2.3 provides a summary of surveyed vehicle speed within the count period.

	Northbound	Southbound
Victoria St		
Avg Speed (5 PM – 6 PM)	31	41.6
85 th % speed (5 PM – 6 PM)	42.5	52.9
The River Road		
Avg Speed (5 PM – 6 PM)	42.8	
85 th % speed (5 PM – 6 PM)	53.2	

It is noted traffic flows along The River Road, Victoria Street appear to be satisfactory without any observable traffic delays or queues.

3. PROPOSED DEVELOPMENT

3.1 Development Description

The proposed project is proposed to have additional 32 new car park space with ingress movement from the Victoria Street entry only and egress movement into The River Road left entry and left exist only. The left entry and left only exist vehicular access arrangement is appropriate for access by private vehicles as well as potentially larger delivery vehicles should this be necessary. The proposal includes additional parking of 32 car spaces created by amalgamation of the rear part of Lot 14, 15 and 16 DP 731449 to the Temple site thereby creating an overall parking area that is capable of accommodating 82 vehicles (including disabled parking) with appropriate disabled access from the parking areas to the prayer hall building (refer Site Plan prepared by Innovative Eco Designs drawing/project No. 2107 436 Page 4 issue B dated 20/1/2022).

Figure 3.1 shows the proposed site layout for the proposed development with the full size plan contained in Appendix A.

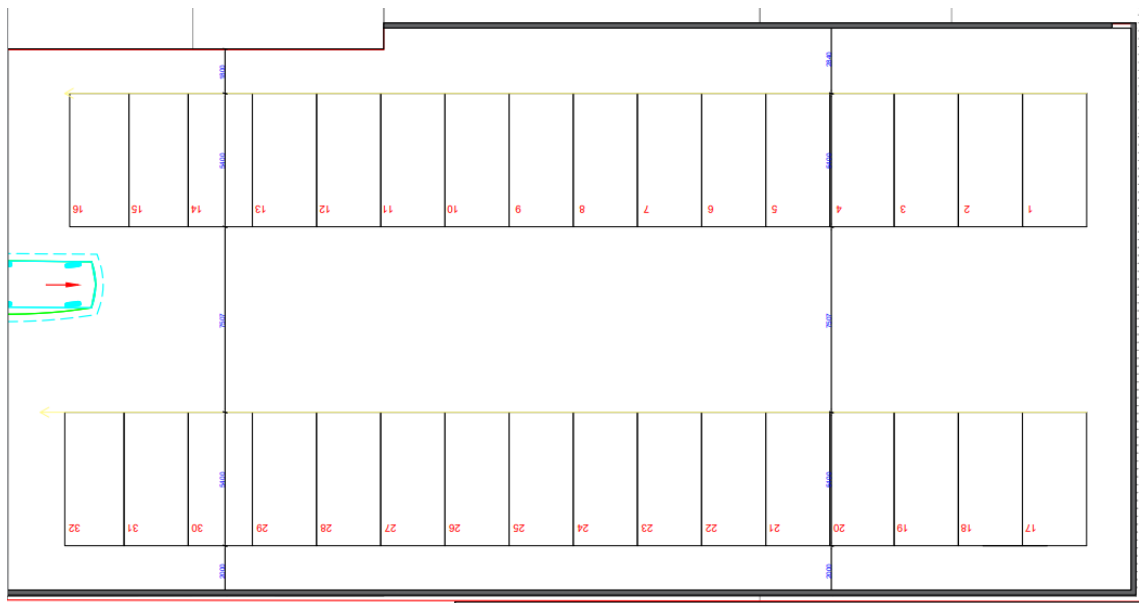


Figure 3. 1 Proposed Car Park Layout Plan

3.1 Proposed Access Arrangement

Access is proposed off Victoria Street and The River Road. The River Road access is proposed to permit left turn ingress only, while the Victoria Street access is proposed to permit left and right turn egress. The above proposed access arrangement is consistent with the existing condition, there were nothing change with this additional car park arrangement.

4. PARKING, ACCESS AND INTERNAL LAYOUT ASSESSMENT

4.1 Car Parking Requirement:

Car parking requirements for the proposed development have been assessed against City of Bankstown Canterbury Council Development Control Plan 2021 chapter 3 General Requirement Parking.

4.2 Adequacy of Car Parking Spaces

The proposed development includes 82 car parking spaces including existing. As such, 32 car parking spaces are the proposed for this application

4.3 Accessible Car Parking Spaces

In relation to accessible car parking requirement, against City of Canterbury Bankstown - Council Development Control Plan 2021-Chapter 3 General Requirement at a rate of one space per every 25 car parking spaces or part thereof. Notwithstanding, the proposed development includes two accessible car space in compliance with AS2890.6:2009. Therefore, accessible car parking for the proposed development is satisfactory.

4.4 Bicycle Parking

DCP has no specific requirements for bicycle parking.

4.5 Motorcycle Parking

DCP has no specific requirements for bicycle parking.

4.6 Service and Delivery Vehicle Parking

The proposed development is proposed to be serviced by 8.8m long rigid vehicles including waste collection. All servicing of the proposed development will be restricted to be outside of the peak periods. All deliveries will be arranged to occur outside of the busy trading periods (e.g. After 10am and before 3pm weekdays) so to avoid unnecessary disruption to traffic operation of the subject site and the wider road network. On exit, the delivery vehicle will be required to turn left into The River Road and travel northbound. All service vehicles will enter and leave the site in a forward direction. The proposed layout of the site permits all vehicles to access in a forward direction. This is demonstrated in the swept path diagrams contained in Appendix B.

4.7 Access

The DCP mentioned about the minimum driveway width requirement for one-way and two way. The driveway at The River Road is approx. 5.7m wide and Victoria Street is approx. 5.20m wide. As noted previously, access is proposed off Victoria Street and The River Road. The River Road access is proposed to permit left turn only movement from the car park. The Victoria Street access is proposed to permit left and right turn movement to car park. A “LEFT ONLY” sign (RM2-14L_A) is proposed at the Victoria Street exit.



Figure 4. 1 Left Turn Only Sign (RM2-14L_A)

The “Left Turn only” regulatory sign are proposed to warn drivers not to turn right. This is to prevent drivers from turning right into The River Road to ensure the continued safe operation and no traffic delays on the road. In relation to sight line, an assessment of the proposed The River Road access has been undertaken as per requirements set out in AS2890.1:2004. The assessment is presented in Figure 4.2.



Figure 4. 2 The River Road Sight Line Assessment

4.7 Site Layout

This section of the report describes of the proposed site layout including the arrangement of the proposed car parking spaces within the site as well as a discussion of its design compliance against the Australian Standard. The proposed car parking spaces have been designed to accommodate an Australian Standard 5.2m long B99 vehicle. A total of 32 car parking spaces are proposed. 16 of the proposed car parking spaces are located along the eastern boundary and rest on western side of the boundary

Access to the car parking spaces via left turn only movement from The River Road and left/Right entry from Victoria Street. The exit from the proposed site is to the left turn exist only to Victoria Street. The aisle width in front of the car parking spaces is a minimum of 7.50m wide. The proposed accessible car space and associated shared area

have a minimum width of 2.4m and a minimum length of 5.4m. All proposed car parking spaces are proposed to be configured as 90-degree car parking spaces. The above dimensions of the proposed car spaces comply with the design requirements set out in the Australian Standard (AS2890.1:2004) for a Class 3 parking facility. On this basis, the design of the proposed car park and associated elements is satisfactory.

5. TRAFFIC ASSESSMENT

5.1 Traffic Generation

The new car park will transfer the existing parking demand from on street parking in Victoria St into the Temple complex.

Given that motorists would entice into the new parks, for the purpose of the distribution, an assessment of the traffic generation of additional car park is undertaken. Given that that there is no definite generation rate for place of worship, it can be assumed that the car park generation is closely related to parking generations. Upon consultation with the Temple, the following busy periods are being noticed:

Evening Peak period of visitors is between 4 PM to 8 PM Saturday evening

Morning peak period of between 8 AM to 10 AM Saturday morning

Usually, the time between 5 PM to 6 PM is busier than morning peak period. As a result of uneven arrival and departure, and usually 2-hour patronage, the traffic generated for practicable purpose is identical to parking generation.

Based upon City of Canterbury Bankstown Development Control Plan 2021 3.1 Engineering Standard Off – Street Parking's parking generation rate (1 car for 5 sqm of the assembly area), the subject site demands 82 car parks. Given that 50 car parks are already in place, there is a short fall of 32 car parks with the Temple Complex.

Notwithstanding the above, in order to generate an absolute worst case scenario, for the purpose of the assessment, the additional 32 car parks would generate 64 car trips with 2 hour patronage period. The visitor usually come to the Temple to catch up friends and relatives and therefore they tend to stay long and therefore there would be slow rotation of car parks. Given that the patronage has two hours window, it can be estimated that the additional car parks will generate 32 car trips. Since the new car park will shift the on street car parks of Victoria St, the generation is explained here just for the purpose of traffic distribution.

5.2 Traffic Distribution

The traffic distributing out from the complex will reduce the amount of traffic on street parking in Victoria Street by transferring it to River Road. With additional car parks in

the complex, there will be subtle increase of traffic exiting into River Road however any queuing of traffic into River Road is expected to occur withing the Temple complex itself.

Given that Victoria St allows left only and right in traffic to the entrance, it is assumed that 60% of traffic will have an origin to the north and therefore access the site from the north along Victoria Street.

30% of traffic into the development gets entry from River Road. 100 % of generated traffic from additional car parks will exit from River Road.

With the new car parks in place, the following additional peak hour distribution are projected to occur during the Temple peak 5 PM to 6 PM period.

- 7 vehicles will access the site via left in from River Road
- 10 vehicles will access the site via left in from Victoria Street
- 16 vehicles will exit the site via left out into River Road

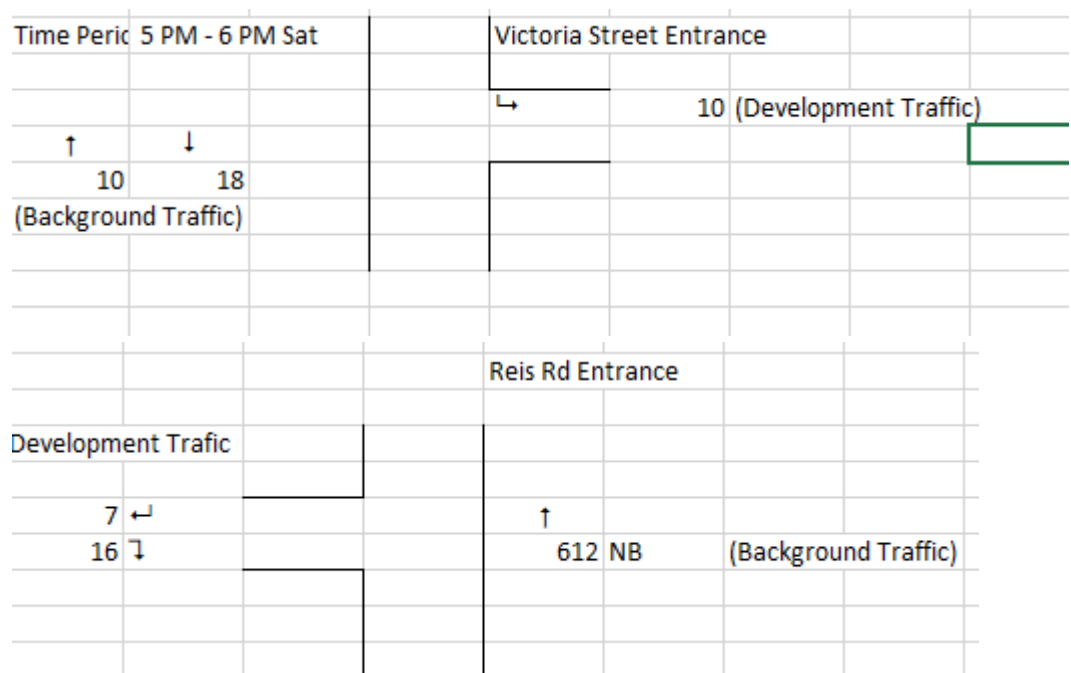


Figure 5. 1 Traffic Distribution Scenario

6. CONSTRUCTION TRAFFIC IMPACTS

6.1 Construction Activity

The construction of the proposed development will primarily involve the following works:

- Installation of site hoarding to ensure safe public access during works
- Site clearing
- Excavation works and
- Pavement works including line marking

The extent of the work site will generally be wholly contained within the site boundary, with minimal impact on the surrounding road network.

6.2 Work Hours:

It is proposed that works be only undertaken during the approved hours consistent with any relevant consent conditions. At this stage, the proposed development has not been approved, however it is expected there will be a consent condition stipulating similar work hours to the below:

- 7:00am – 5:00pm, Monday to Friday
- 7:00am – 12noon, Saturday, and
- no work to be undertaken on Sundays or public holidays.

In addition, any works outside the above work hours (as amended by the relevant consent conditions) will be subject to a separate application to the Council. The proposed works are expected to take approximately 2 weeks to complete.

6.3 Construction Vehicle Type

Construction vehicles likely to be generated by the proposed construction activities include:

- 12.5m heavy rigid vehicles
- excavator, and
- small rigid vehicles, vans and couriers for smaller deliveries as required.

It is expected that approximately 80 per cent of all construction vehicles would be heavy and medium rigid vehicles and approximately 20 per cent would be small rigid vehicles,

vans and couriers. The traffic generated by construction activities on the site has been conservatively estimated to be approximately 4-6 vehicle movements per day. This level of construction traffic generation is considered to be low and would have a negligible impact on existing traffic conditions.

6.4 Construction Vehicle Routes

Construction vehicles generally have origins and destinations across the region, with an extensive network of roads made available for such trips. To minimise the impact of construction traffic on local streets, dedicated construction routes will be developed to provide the shortest distances to/from the arterial road network. These will be detailed in the construction traffic management plan to be prepared at a later date.

6.5 Parking

There will be no on-site car parking provided within the work site. Construction workers would be encouraged to use other transport modes for travel to and from the site including carpooling. This will be incorporated in the workers induction program to ensure minimal parking impact on the surrounding streets.

6.6 Worker Induction

All workers and subcontractors engaged on site will be required to undergo a site induction. The induction will include permitted access routes to and from the construction site for all vehicles, as well as standard environmental, OH&S, driver protocols and emergency procedures. Any workers required to undertake works or traffic control within the public domain will be suitably trained and will be covered by adequate and appropriate insurances. All traffic control personnel will be required to hold the appropriate accreditation.

6.7 Traffic Control Plans

Notwithstanding, to limit the impacts due to construction activities on traffic operation of the surrounding network, a Traffic Control Plan (TCP) will need to be prepared and submitted to the Council for their approval to appropriately manage construction vehicles accessing the site. The TCP should also outline how potential construction vehicle manoeuvres could be accommodated in and out of the construction site.

6.8 Construction Traffic Management Plan

A Construction Traffic Management Plan (CTMP) will be required to be prepared and submitted to Council for approval. The CTMP will provide further details on the construction activities and their impacts, if any.

7. SUMMARY AND CONCLUSION

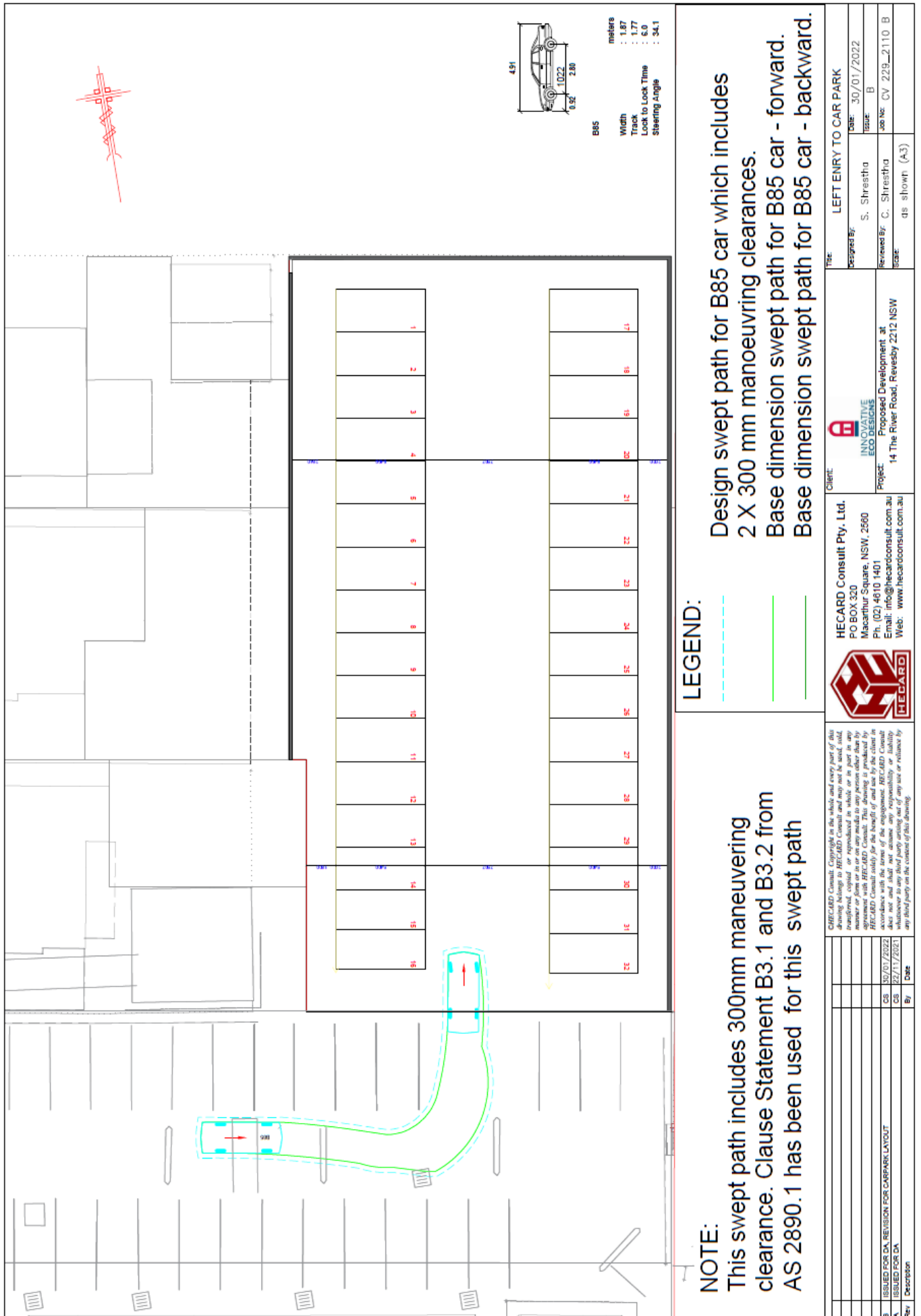
This report examines the traffic and parking implications of additional car park development at 14-22 The River Road, Revesby NSW. The salient findings of this assessment are presented below.

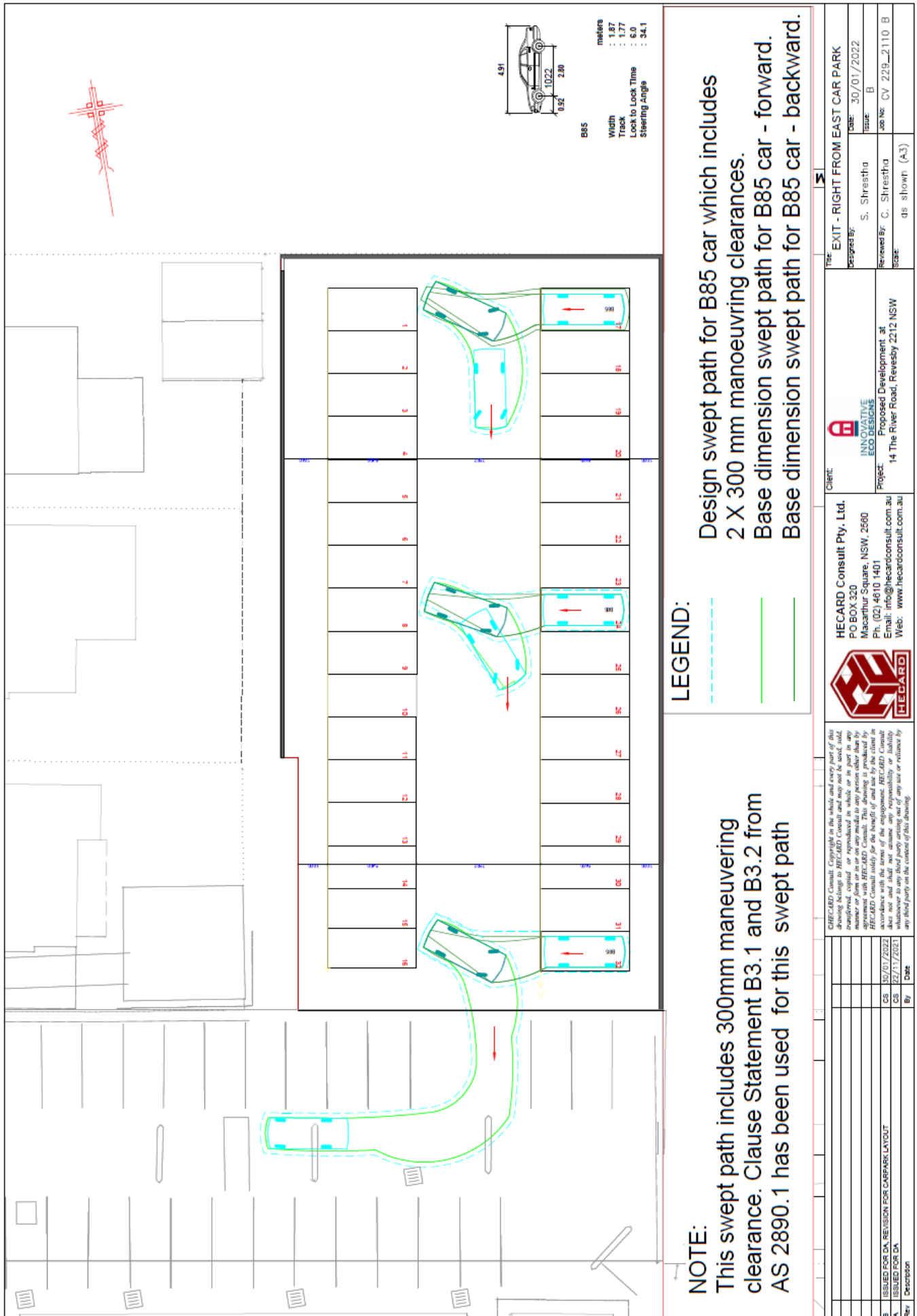
The traffic generated out from the complex will reduce the amount of traffic on street parking in Victoria Street by transferring it to River Road. With additional car parks within the premises, there will be subtle increase of traffic exiting into River Road however any queuing of traffic is expected to occur withing the Temple complex itself. The development traffic from additional car parks will not have any adverse impact to the surrounding network.

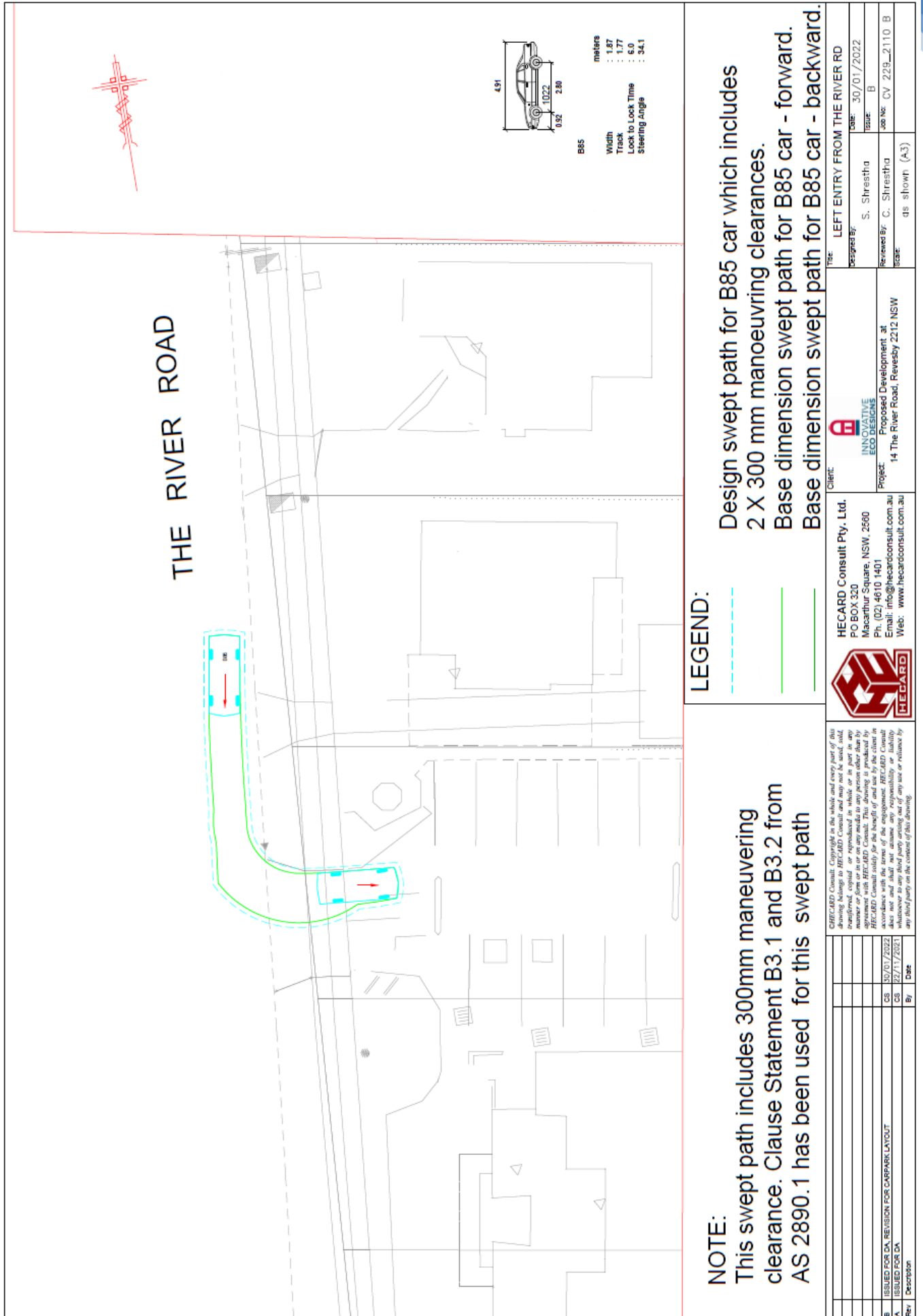
Overall, from a traffic and parking perspective the proposed development is satisfactory.

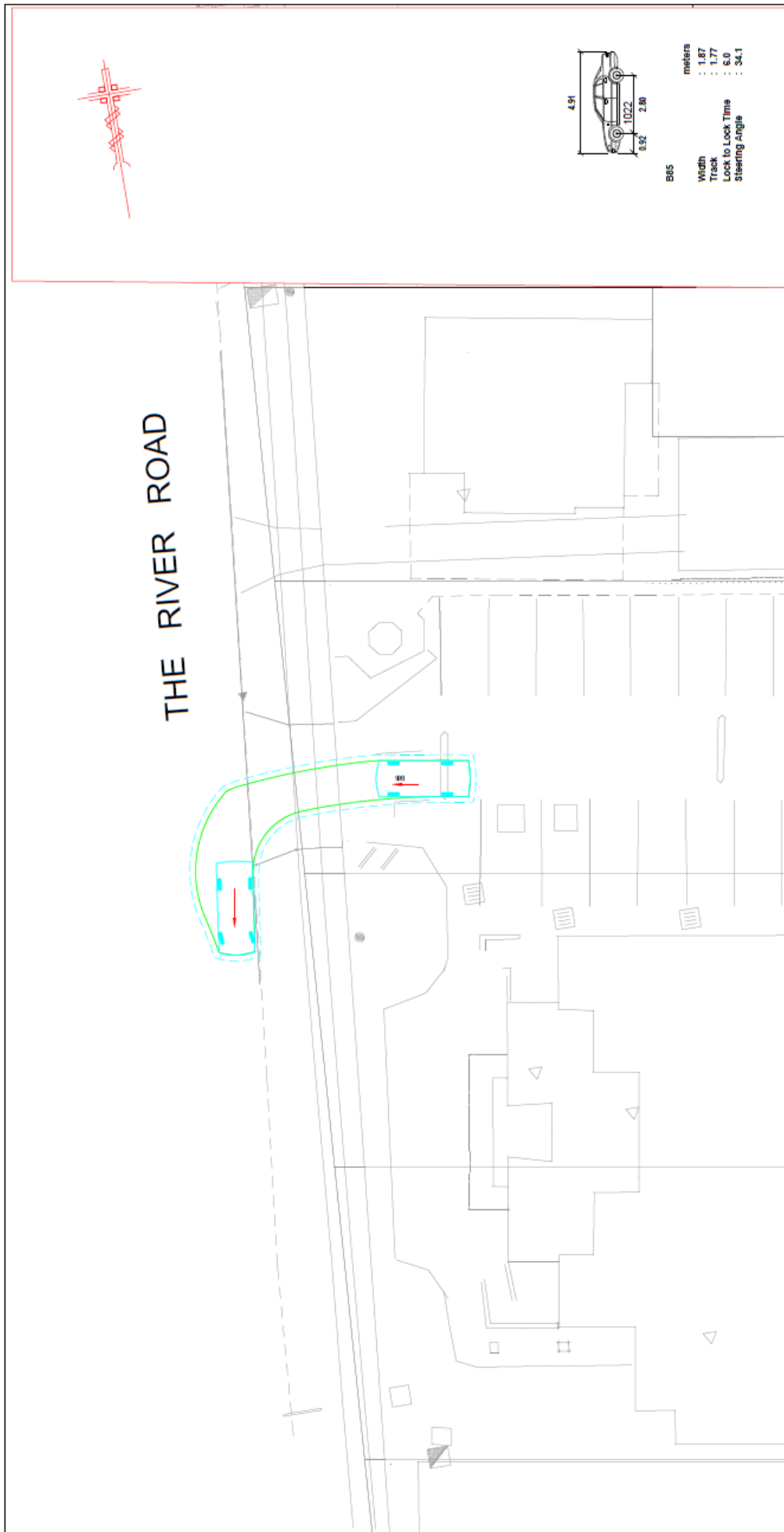
APPENDIX A – SWEPT PATH DETAIL











<p>NOTE:</p> <p>This swept path includes 300mm maneuvering clearance. Clause Statement B3.1 and B3.2 from AS 2890.1 has been used for this swept path</p>	<p>LEGEND:</p> <p>-----</p> <p>_____</p> <p>_____</p>
<p>Design swept path for B85 car which includes 2 X 300 mm manoeuvring clearances.</p> <p>Base dimension swept path for B85 car - forward.</p> <p>Base dimension swept path for B85 car - backward.</p>	

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APPENDIX B – PROPOSED DEVELOPMENT SITE PLAN

(Please refer Architectural plans prepared by Innovative Eco Designs)