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Proposed Mixed Use Development 2-6 Bold Street and 80-82 Cowper Street, Granville

Traffic and Parking Assessment

Final Report
Ver. 139509021

This report takes into account the particular instructions and requirements of our client.

Prepared For: IDraft

November 2016

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1. Introduction

MultiPro was commissioned by IDraft Architects Pty Ltd to prepare a report detailing the traffic and parking issues concerning the proposed mixed-use development at 2-6 Bold Street and 80-82 Cowper Street, Granville. The proposed development is located on Lots17-21 DP7553 and Lot 22 DP 651169. The locality of the site is shown in Figure 1.

This Traffic Impact Assessment has been prepared in accordance with the RMS *Guide to Traffic Generating Developments* procedure manual where applicable.

The report discusses the following:

- Existing Conditions – a review of existing road features, adjacent developments, traffic volumes, driveways, parking arrangements, pedestrian facilities, and sight distances;
- Proposed Development – a review of additional traffic generated from the proposed development, the development daily traffic profile, internal car parking layout and access driveway; and
- Development Impact– assessment of the impact of the traffic generated by development on the road network.

Figure 1 Locality of the Site

2. Existing Conditions

2.1. Road Hierarchy

The classification of the road hierarchy in accordance with the Roads and Maritime Services(RMS) road hierarchy classifications in the vicinity of the proposed development are as follows:

- M4 Motorway – Classified as State Road which provides link between Concord and Emu Plains and carries three traffic lanes on each direction.
- The Great Western Highway (GWH) - Classified as State Road that runs in an east-west direction. The GWH is a six lane divided road (three lanes each direction).
- Bold Street –Classified as a Regional Road which provided a link between Auburn and Granville.
- Cowper Street – is a local street which provides access to properties along the road.

2.2. Existing Traffic Management Controls

The existing road network near the vicinity of the development site comprises the following important traffic management features.

Give Way Control:

Sign-Posted Speed Limits:

- 60 km/h posted speed limit on Parramatta Road
- 50 km/h posted speed limit on Cowper Street
- Traffic signal at the intersection of Parramatta Road with Bold Street
- Give Way control on Cowper Street at the intersection with Bold Street

2.3. Public Transport

2.3.1. Rail Services

The proposed development site is located approximately 300m from Granville Railway Line. It is served by Sydney Trains T1 Western Line and T2 Inner West and South Line services and NSW TrainLinkBlue Mountains Line services. It is the junction for the Main Western line and the Main South line. A detail of the Sydney Train network map is shown in Figure 2.

Figure 2 Sydney Train Network Map

2.3.2. Bus Services

Details of the bus routes provided by 'transdev' in vicinity of the subject site are in Figure 3 and

Figure 4.

Figure 3 Bus Route Map - 906

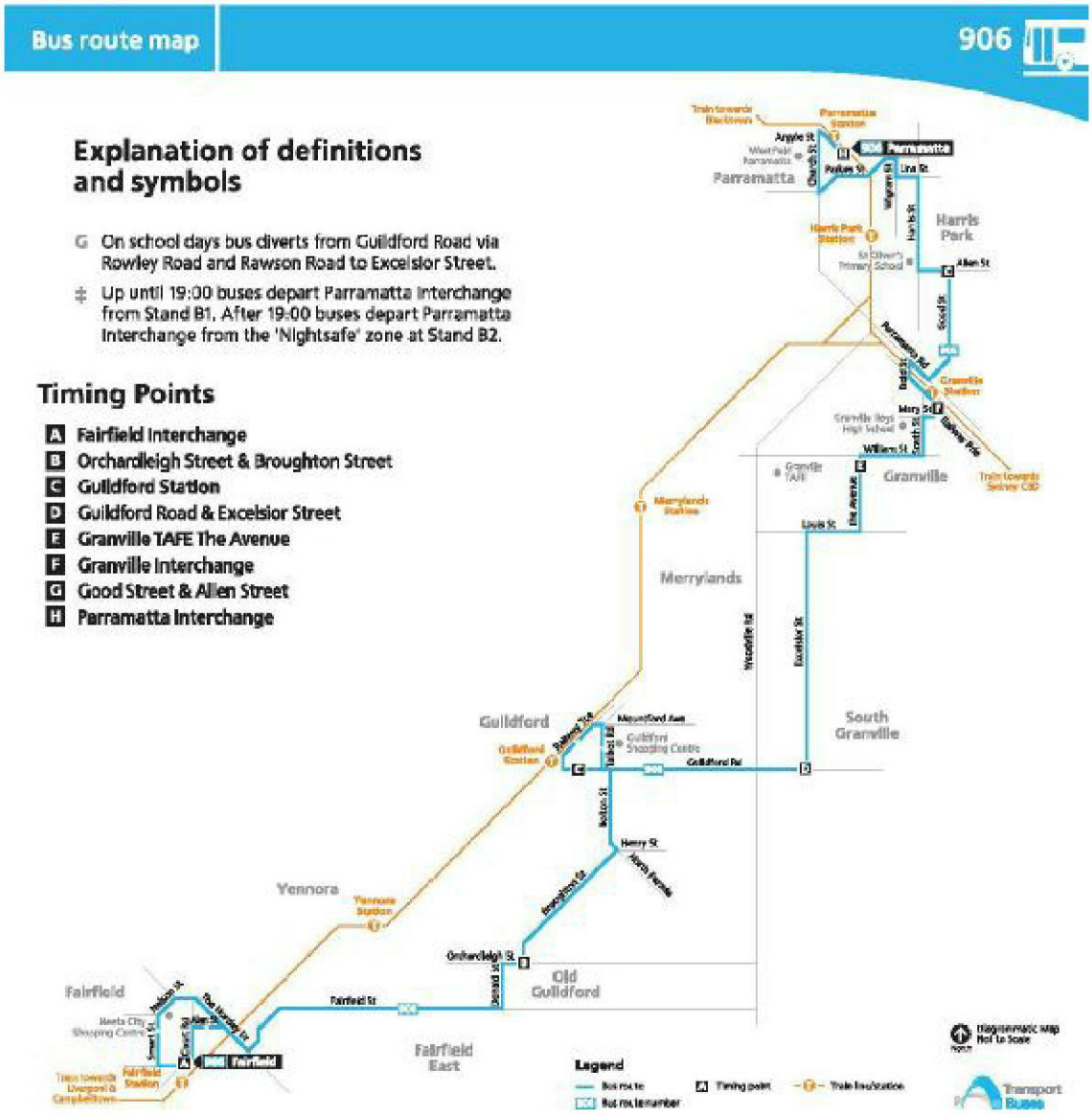
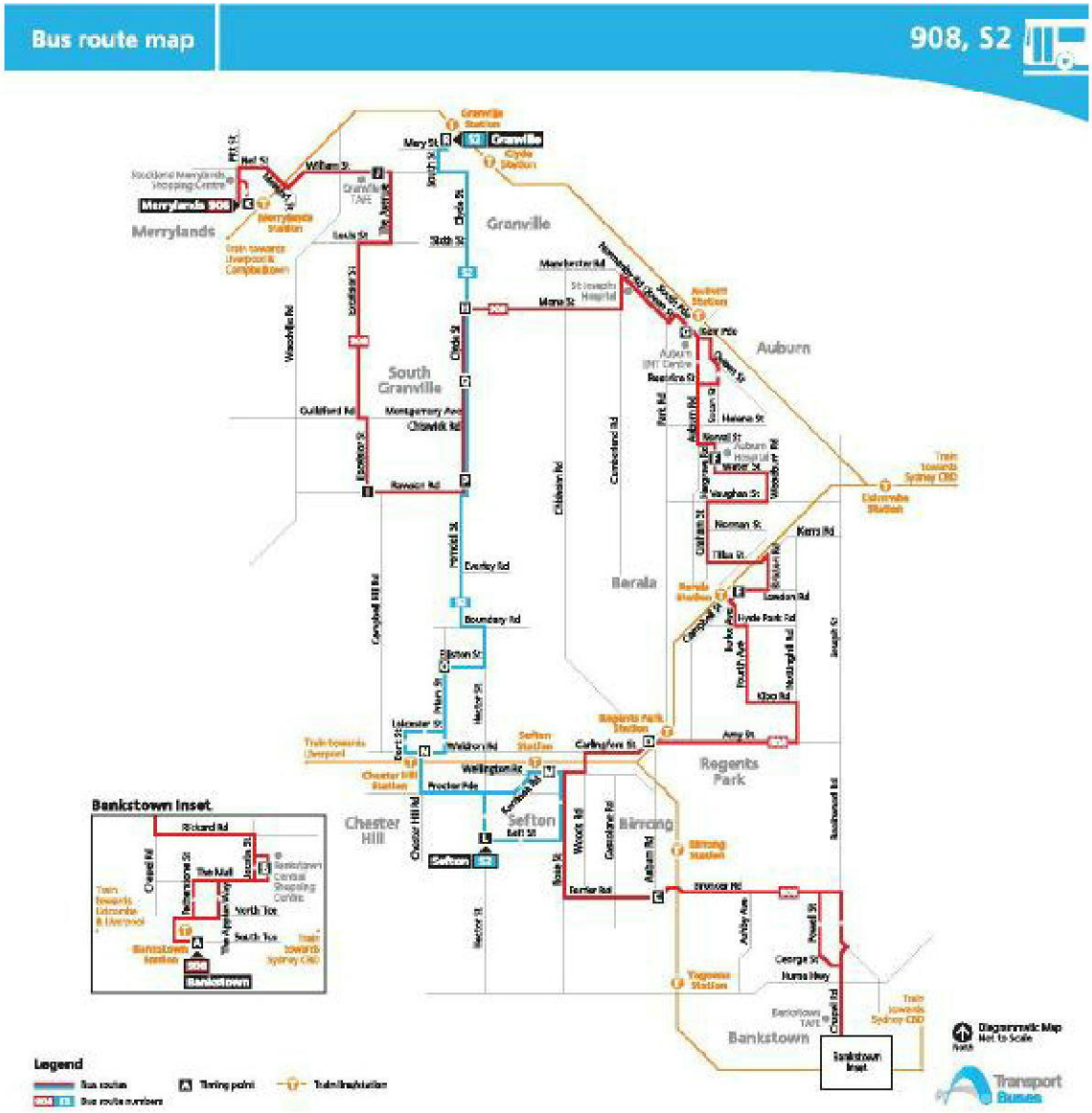


Figure 4 Bus Route Map - 908



3. Proposed Development

The proposed development site is located on the southwest corner of the intersection of Bold Street with Cowper Street. The site has 47.3m frontage to Bold Street and 47.5m frontage to Cowper Street. The site consists of six separate lots and will have a site area of 2,204m^2 after consolidation. Land zone applied to this land under Parramatta Local Environmental Plan 2011 is zone B4 (mixed use).

3.1. Features of the Proposed Development

Features of the proposed development are provided below

- The proposed 92 residential units comprised as follows:
    - 2 studios
    - 27 x 1 bedroom units
    - 48 x 2 bedroom units
    - 15 x 3 bedroom units
- 374.85m^2 of commercial / Retail floor area (GFA);
- 128 parking spaces provided within three levels as follows;
    - 95 residential parking spaces (10 accessible/disabled parking spaces)
    - 23 visitor parking spaces
    - 10 commercial/retail parking spaces
    - 60 bicycle parking spaces
- Loading area for small rigid vehicles (up to 6.4m long) on the ground level;
- Existing entry / exit points provided via Cowper Street on the north western side of the proposed site;

4. Parking and Site Access

4.1. Parking Requirements

Car parking provision will be required to accommodate commuters, customers, visitors and deliveries. The relevant parking requirements from Parramatta Council's DCP and the RMS's 'Guide to Traffic Generating Developments' are provided in Table 1 below. It should be noted that under the NSW State Environmental Planning Policy No 65 - Design Quality of Residential Apartment Development (SEPP 65)for development within 800m of a railway station the minimum car parking requirement for residents and visitors is set out in the RMS's Guide to Traffic Generating Developments, or the car parking requirement prescribed by the relevant council, whichever is less.

Table 1 Off-Street Parking Requirements

Type	No. of Units / or m^2	Rate	Parking Required	Total
Council's DCP				
Residential	29 x 1 Bedroom	1	29	95
	48 x 2 Bedroom	1	48	
	15 x 3 Bedroom	1.2	18	
Visitor	92	0.25	23	23
Commercial/Retail	374.85m^2	1/60m^2	6.3	6.3
Minimum required				125
Bicycle Spaces				
Residential	92 units	1/2 units	46	51
Commercial/Retail	374.85m^2	1/200m^2	1.9	
RMS				
	29 x 1 Bedroom	0.6	17.4	81.6
	48 x 2 Bedroom	0.9	43.2	
	15 x 3 Bedroom	1.4	21	
Visitor	92	0.2	18.4	18.4
Minimum required				100

The minimum required parking spaces based on the RMS's Guide to Traffic Generating Developments for residential components of the proposed development are 100 spaces. The commercial component of the proposed development requires having a minimum of 7 parking spaces in accordance with the Council's DCP. The total number of required parking spaces for the proposed mixed used development is 107 parking spaces which is less than the 128 parking spaces provided by the development. Provision of 60 bicycle parking spaces meets the requirements of Council's DCP.

4.2. Parking and Driveway Layout

The access driveway and internal parking layout of the proposed development has been designed in accordance with the requirements of the AS2890.1-2004. Details of the parking layout requirements are provided in Table 2.

Table 2 Parking Layout Requirements

Components	Proposed	AS Requirement	Comply
Parking Space Dimensions	2.4m x 5.4m	2.4m x 5.4m	ü
Disabled Parking space	2.4m x 5.4m with shared zone	2.4m x 5.4m with shared zone	ü
Aisle Width	5.8m min	5.8m	ü
Spaces Bounded by Wall	Widened by 300mm	Widened by 300mm	ü
Blind Aisle	1m aisle extension	1m aisle extension	ü
Driveway Width	6.75m	5.5m	ü
Ramp Gradient	1:8 Grade Changes 1:4 Max Grade	1:8 Grade Changes 1:4 Max Grade	ü
Ramp With	5.5m two-way	5.5m two-way	ü
Headroom	2.2m minimum	2.2m minimum	ü
Pedestrian sight line	Triangular area 2.5m x 2m	2.5m x 2m in accordance with the figure 3.3 of AS2890.1:2004	ü

4.3. Swept Path Analysis

Swept path analysis has been undertaken by using AutoTurn software package. Details of the analysis are provided in Appendix 1. The analysis indicates that the proposed driveway and parking layout comply with the requirements of the AS2890.1:2004.

5. Traffic Implications

The RMS's 'Guide to Traffic Generating Developments' specifies traffic generation rates for various types of land uses.

5.1. Traffic Generation

The projected traffic generation of the proposed development are provided in Table 3 below.

Table 3 Traffic Generated from the Proposed Development

Component	Traffic Generation Rate (vtph)	Traffic Generation (vtph)
	Peak Hour	Peak Hour
Residential	0.29 vehicle trips per dwelling	26.7
Commercial	2 vehicles trip per 100m^2	7.5
Total		34.2 = 35

Vtph – Vehicle Trips Per Hour

The proposed development will generated 35 vehicle trips during peak hours. However, the future traffic generation should be discounted by the existing traffic generation of the site. The existing auto repair workshop at the proposed site is currently estimated to generate 15 vph during peak hours including staff and visitors. It is, therefore projected that the proposed development will increase traffic generation by additional 20 vph (35 -15 = 20) during peak hours. Increase in the traffic volume by 20vph during peak hours as a result of the proposed development will have minimal impact on traffic operation in the vicinity of the proposed site.

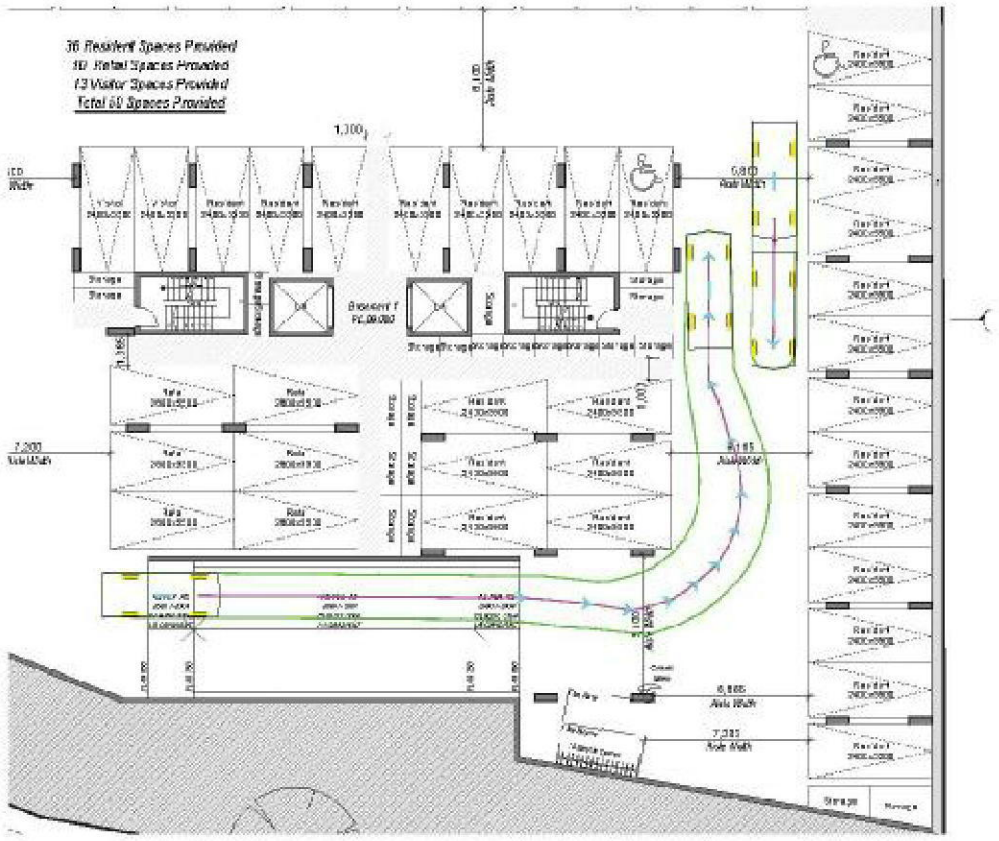
6. Conclusions

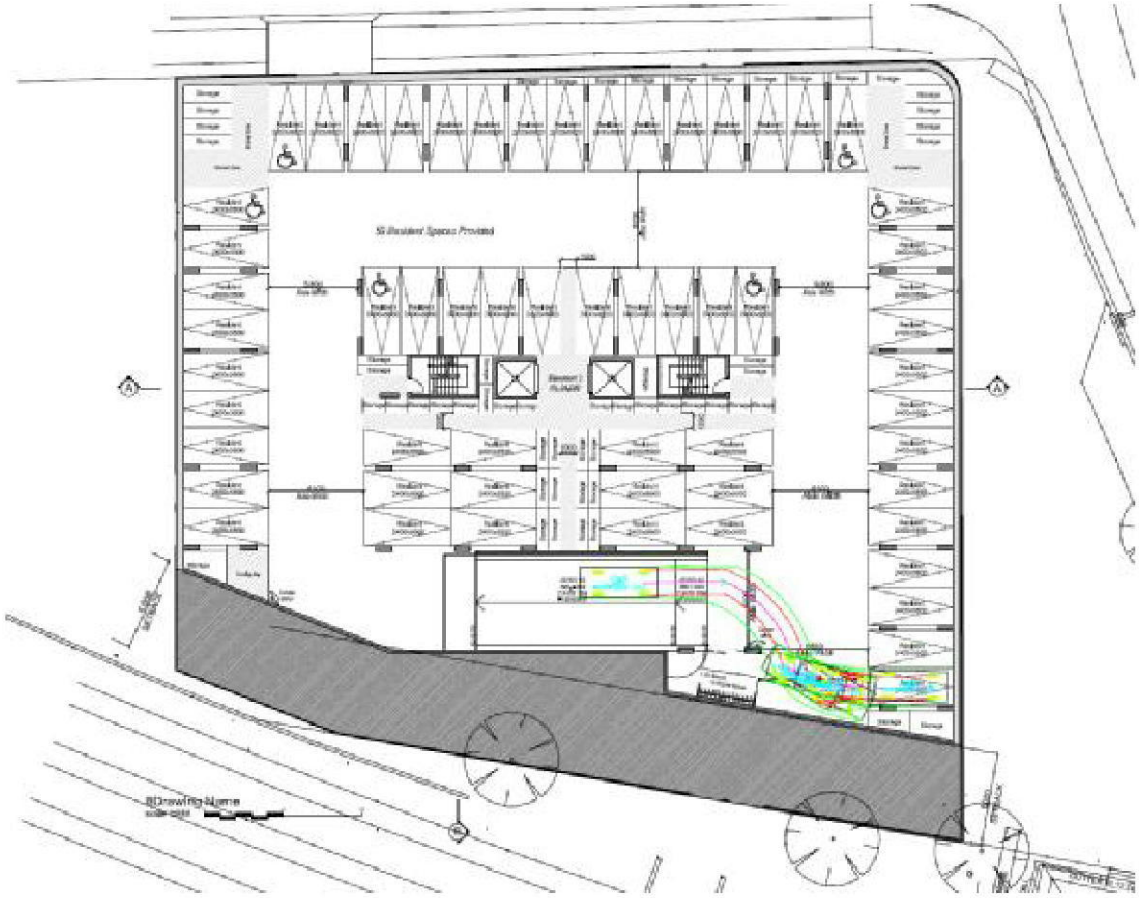
The outcomes of this Traffic and Parking Analysis are as follows:

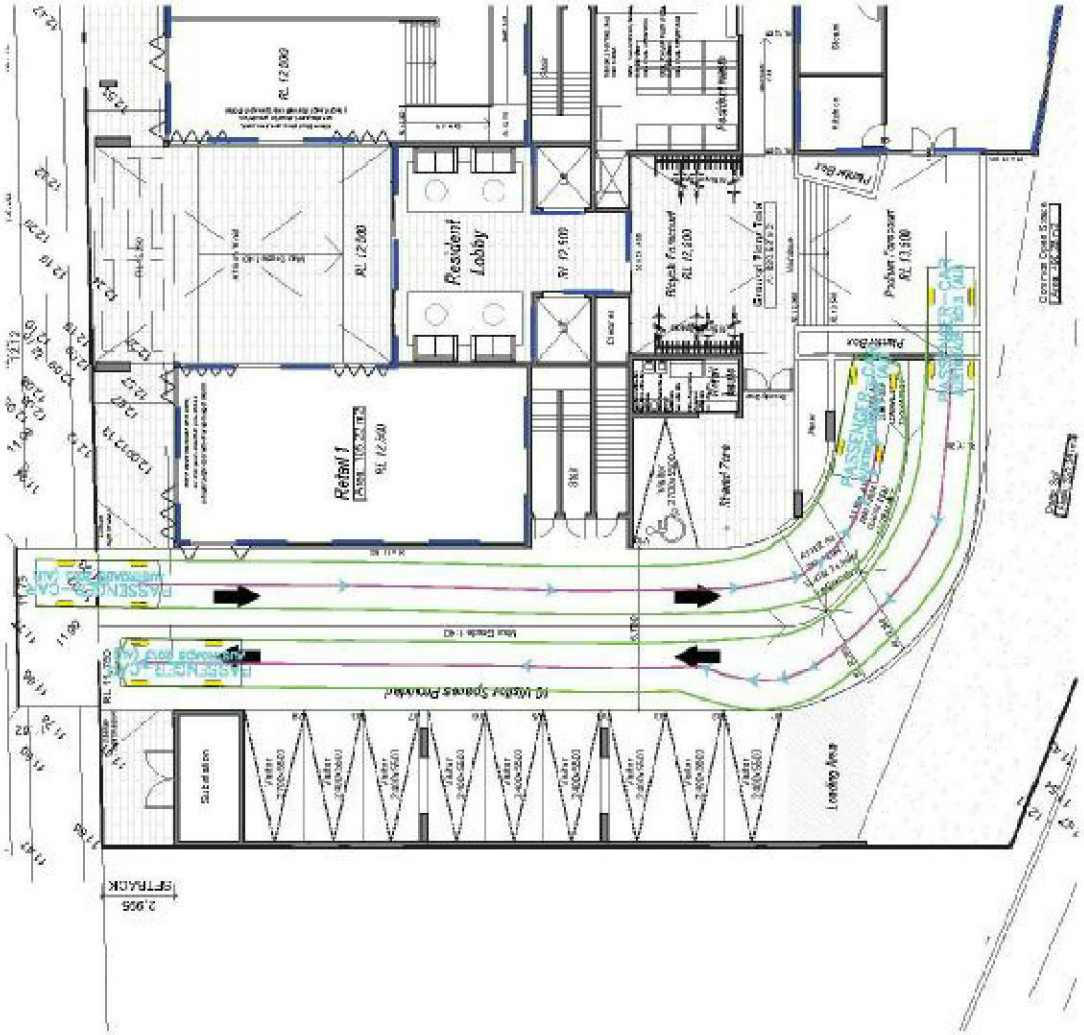
- The increase in traffic generated by the development will have minimal impact on the surrounding road network.
- The number of parking spaces provided by the proposed development exceeds the minimum required parking spaces based on the RMS's Guide to Traffic Generating Developments.
- The proposed parking layout complies with the requirements of the AS2890.1:2004.
- The access driveway complies with the requirements of the AS2890.1:2004.

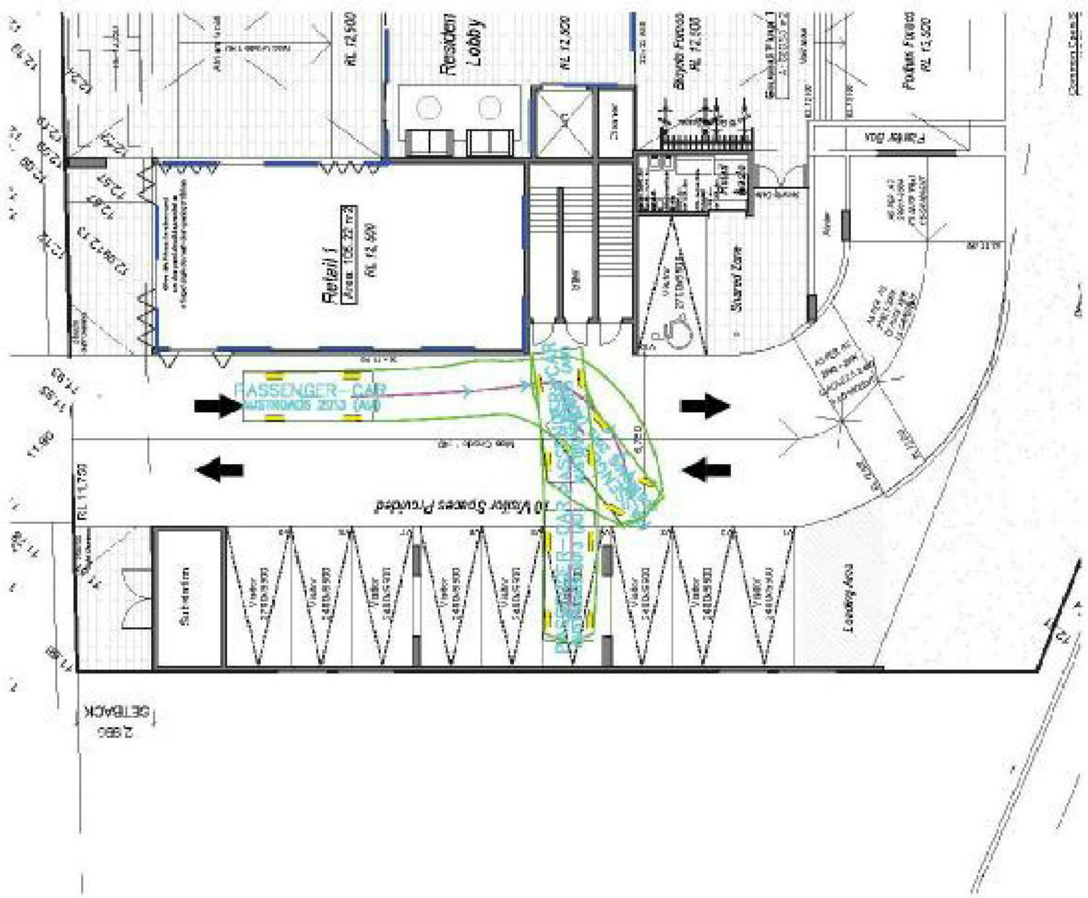
Appendix 1

Swept Path Analysis






Resident Lobby
Retail 1
Loading Area
Substation
SETBACK


PASSENGER-CAR
Retail 1
Resident Lobby
10 Visitor Spaces Provided
Substation
Loading Area
SETBACK