



gtk consulting
traffic management
and car parking solutions

**Access Assessment
Proposed Carport
141 Riverview Road, Avalon Beach**

November 2019

Table of Contents

1	INTRODUCTION.....	3
2	THE SITE AND SURROUNDS	4
3	PROPOSAL.....	7
4	DRIVEWAY ACCESS.....	11
4.1	ACCESS TO PUBLIC ROAD.....	11
4.2	PEDESTRIAN SAFETY	11
4.3	CRASH STATISTICS	12
5	CONCLUSION.....	13

Copyright:

The concepts and information contained in this document are the property of gtk consulting pty ltd. Use of information or copying of this document in whole or part without the written permission of gtk consulting pty ltd constitutes an infringement of copyright.

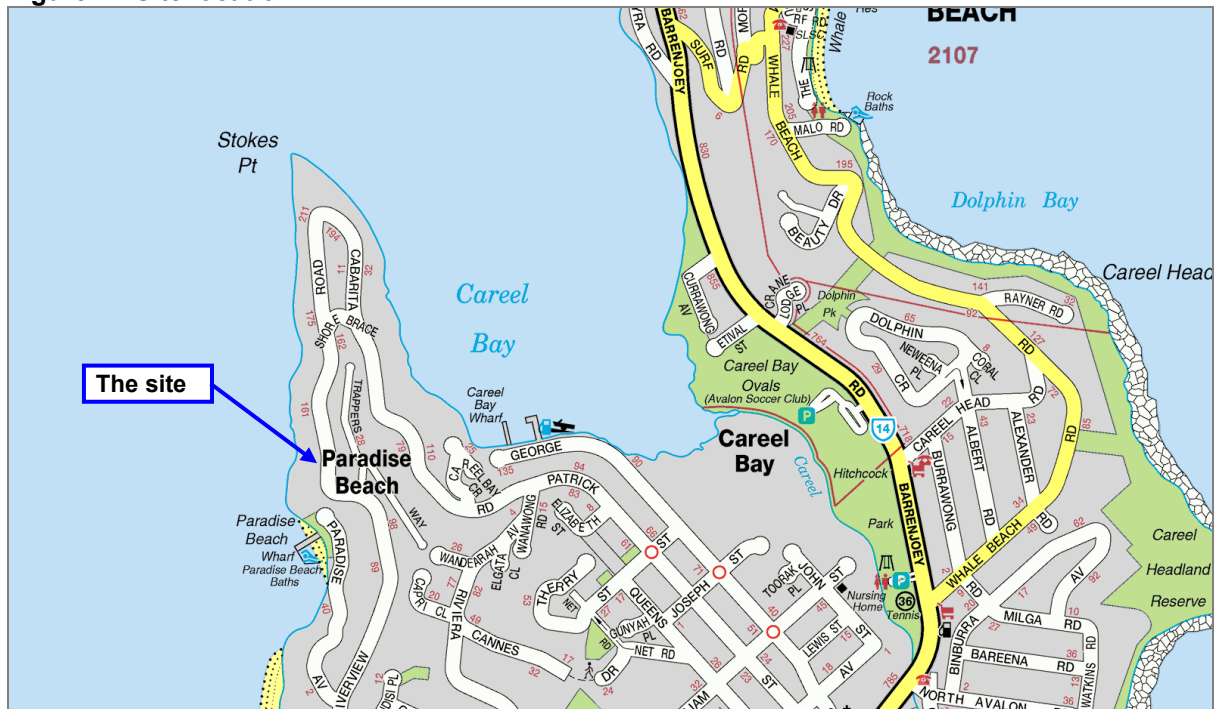
1 INTRODUCTION

gtk consulting has been engaged by Mrs Anita Jacoby to undertake an assessment of a proposal to install a carport at 141 Riverview Road, Avalon Beach (**Figure 1**).

The assessment will examine access for a B85 design vehicle to and from the proposed carport.

This assessment was undertaken by Garry Kennedy, Director gtk consulting pty ltd. Garry has extensive (46 years) experience in Traffic Engineering, Road Safety and Car Parking. Garry chaired a Local Traffic Committee for seventeen years at a major metropolitan Council. In 2006 Garry established gtk consulting and since that time has undertaken many traffic and car parking assessments and studies for Local and State Government Agencies and private developers. Garry provides expert evidence in the NSW Land and Environment Court, Local Magistrates Court and District Court. Garry’s court experience covers a wide range of traffic activities, such as, the suitability of development proposals, traffic accident liabilities, heavy vehicle prosecutions, parking offences and many other offences under the Local Government Act and the Roads Act.

Figure 1: Site location



Source: UBD Australian City Streets v7.0 (licensed to gtk consulting)

2 THE SITE AND SURROUNDS

The site, Lot 2 in DP 833902, is zoned *E4 – Environmental Living* under the *Pittwater Local Environmental Plan 2014*. It is located on the western side of Riverview Road and is currently vacant (**Figure 2**). The land falls steeply away from the road to the site, then Lot 1 and the foreshore of Pittwater. Riverview Road has a sealed carriageway width of 7.5 metres in front of the site. Kerb and gutter is provided on the eastern side of the road and an older style Armco guard rail is located on the western side of the road for the entire site frontage. There is no nature strip or footpath along the western side of Riverview Road in this location and the terrain slopes steeply from the edge of the road carriageway (**Photo 1**).

Figure 2: Aerial view of site



Source: Six Maps 2019

Riverview Road has a speed zone of 50 km/h and is a local road under the care, control and responsibility of Northern Beaches Council.

This site has access to Riverview Road via a right-of-carriageway of variable width (**Figure 3**). The right-of-carriageway, which also provides access to three (3) neighbouring lots, is steep with the first four (4) metres from the road carriageway having a gradient of 41% (**Photos 2, 3 & 4**). There is evidence of vehicle scraping on the driveway.

Photo 1: Riverview Rd in front of site



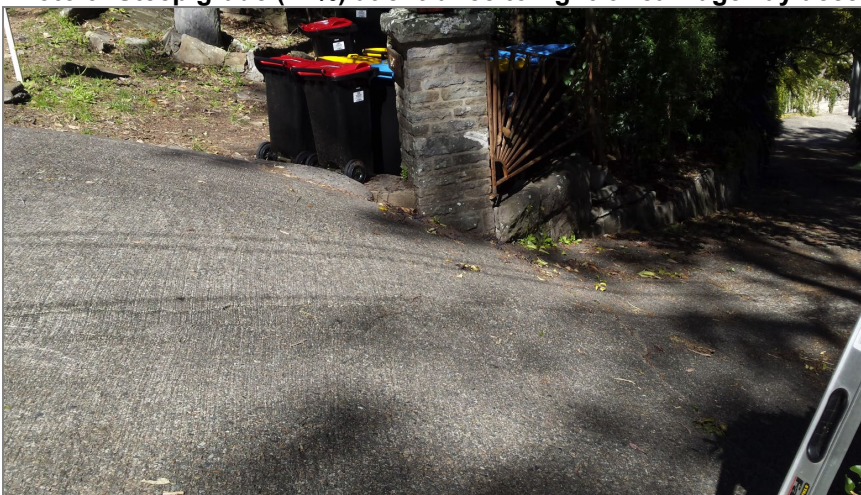
Source: gtk consulting 2019

Photo 2: Right-of-carriageway access



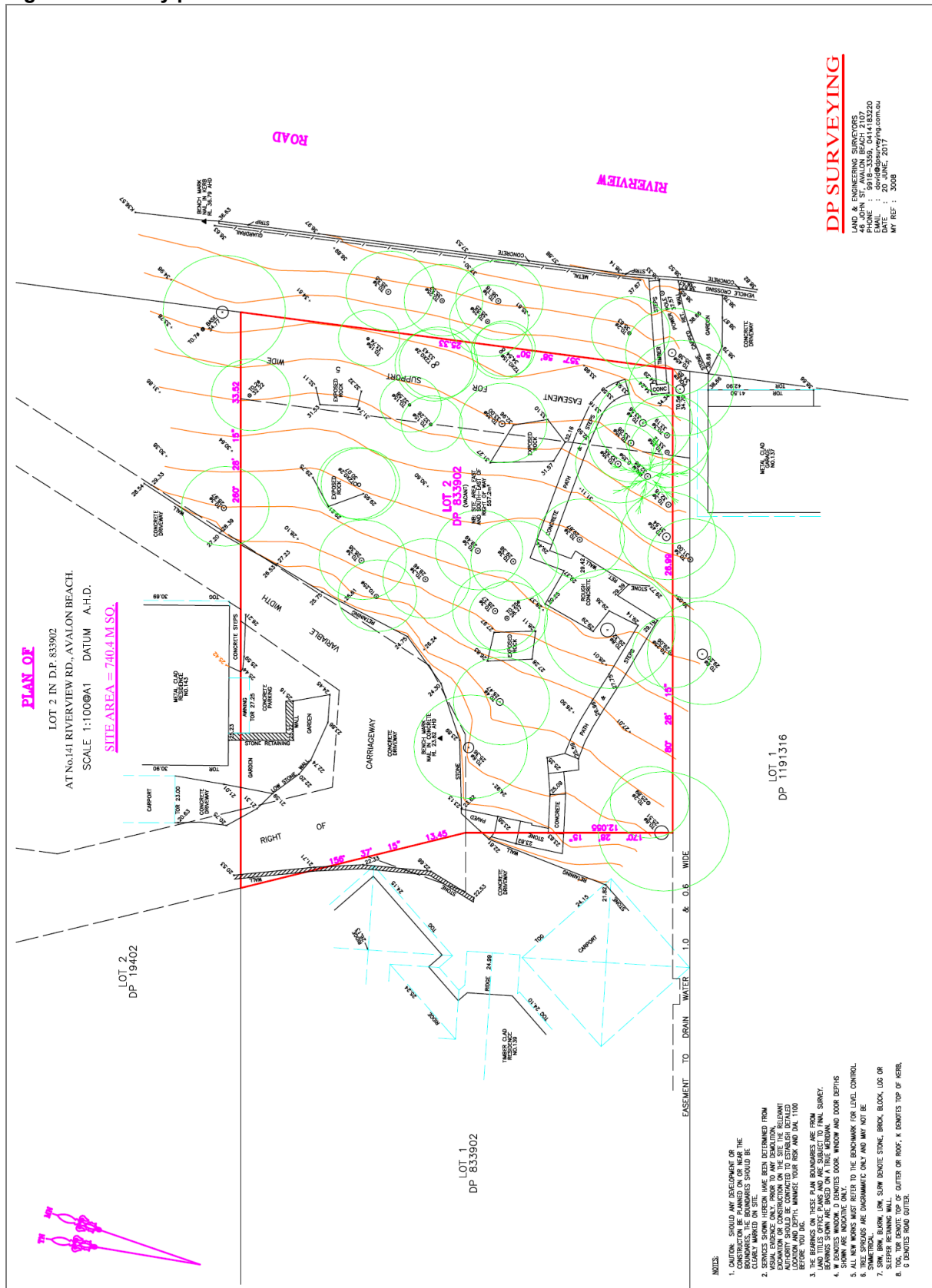
Source: gtk consulting 2019

Photo 3: Steep grade (41%) at entrance to right-of-carriageway access



Source: gtk consulting 2019

Figure 3: Survey plan of site



3 PROPOSAL

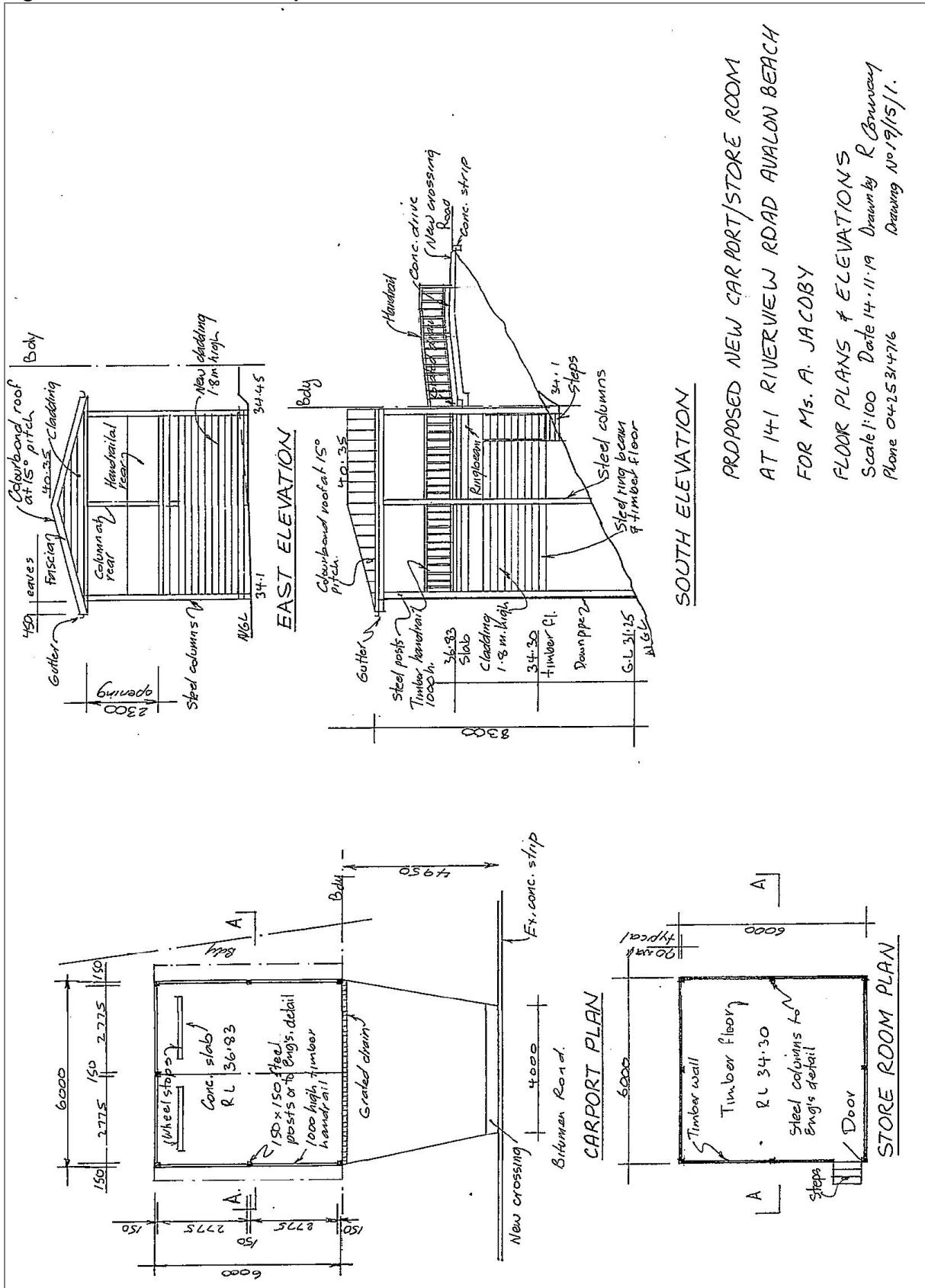
The proposed carport, to be located 900 millimetres from the northern boundary of the property, is 6.00 metres wide and 6.00 metres long to allow two (2) vehicles to park under cover. There is no nature strip or footpath in this location and the access to the carport will be via a suspended concrete slab and graded to provide acceptable drainage. Vehicle access to the carport has been checked using the ground clearance template Figure C1 of AS 2890.1:2004 and reveals that there is sufficient clearance to avoid vehicle scraping.

Riverview Road is narrow and whilst there are no parking restrictions in front of the site, drivers tend to park on one side of the road only. Riverview Road is a bus route and parking on both sides of the road would reduce the carriageway to one lane approximately 3.3 metres wide.

The proposed driveway will result in the loss of one (1) on-street parking space, however, the carport will provide two (2) off-street parking spaces, a net gain of one (1) parking space.

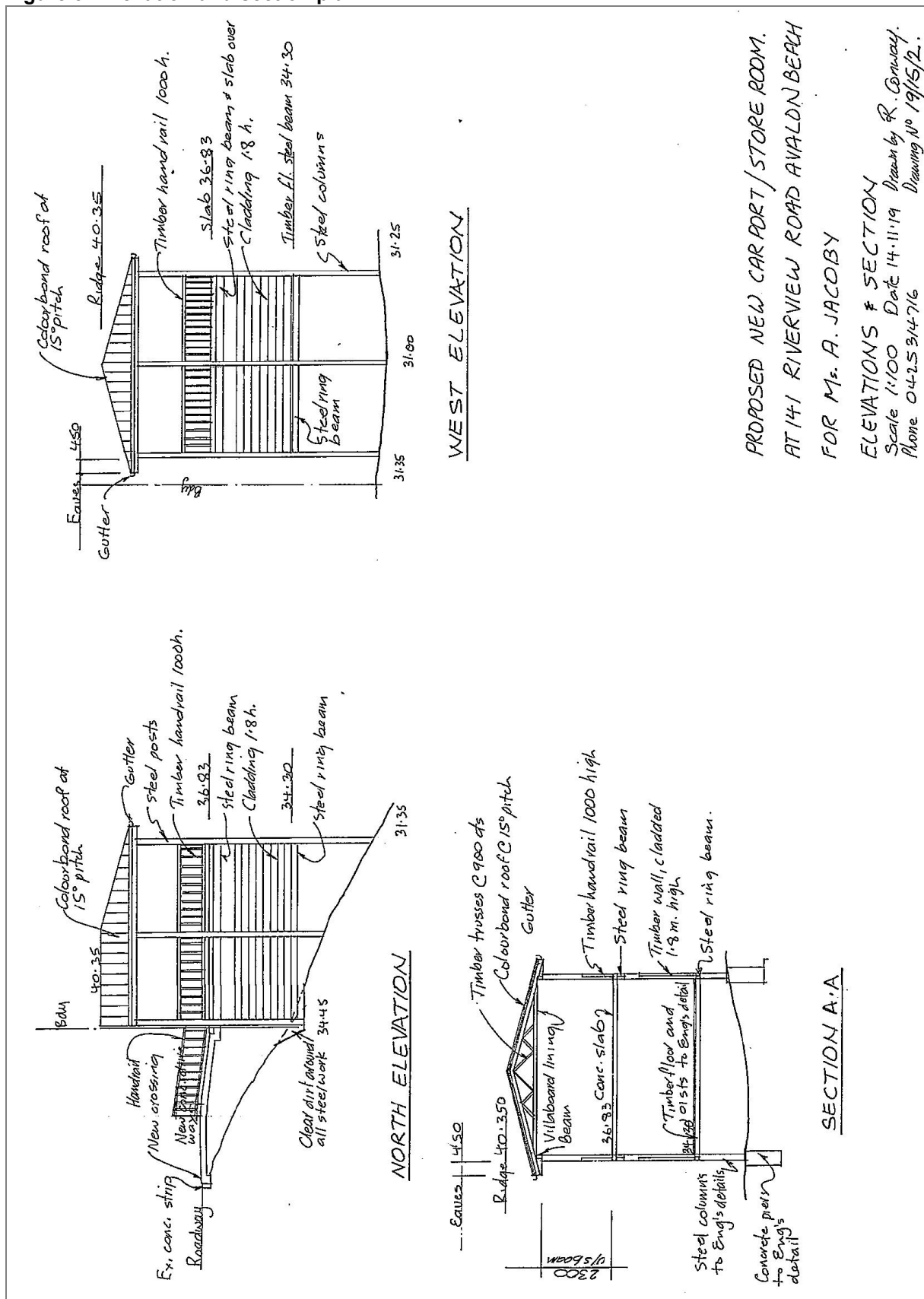
Concept design plans of the proposal have been prepared by R Conway (refer **Figures 4, 5 & 6**).

Figure 4: Floor and elevation plan



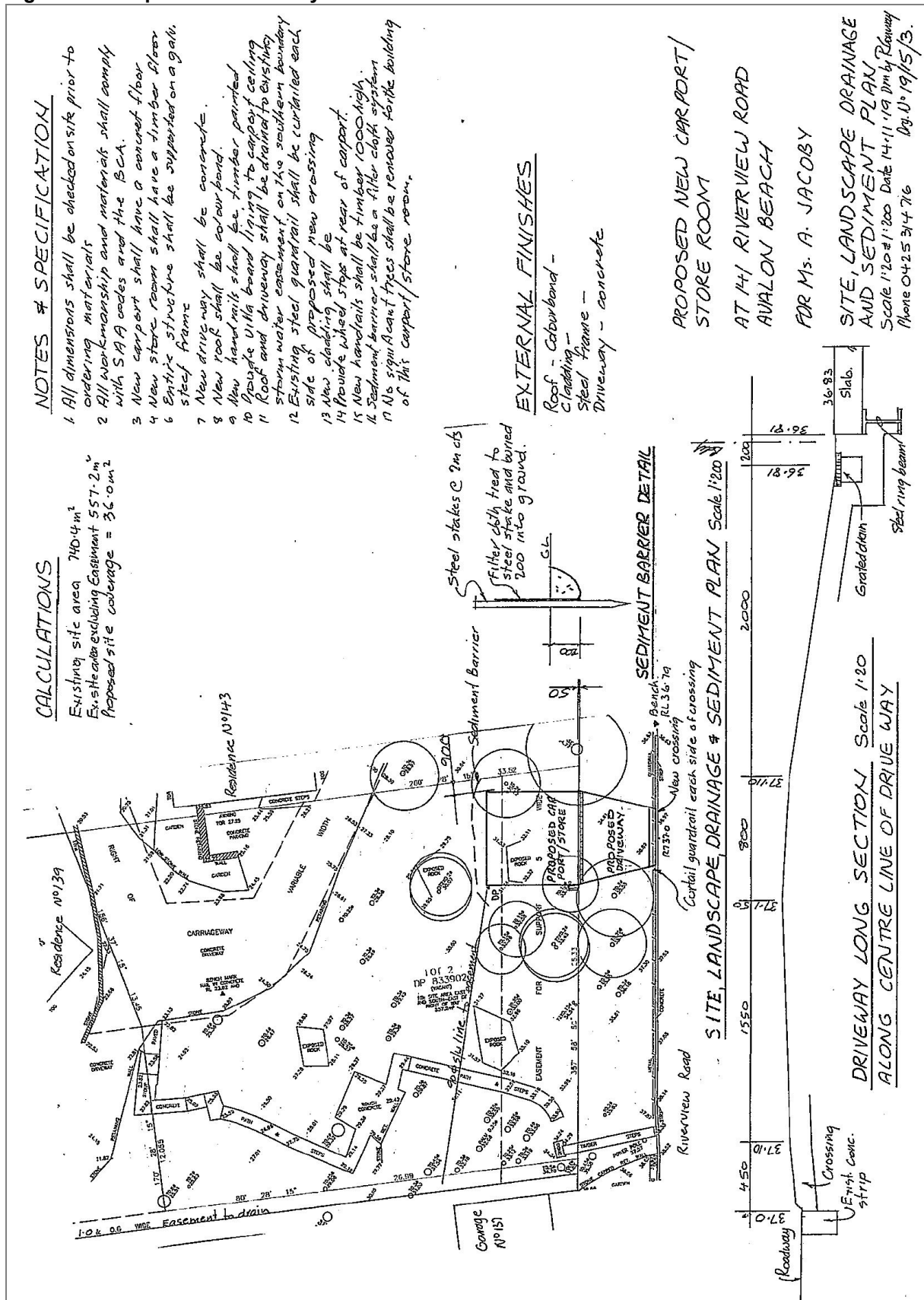
Source: R Conway 2019

Figure 5: Elevation and section plan



Source: R Conway 2019

Figure 6: Site plan and driveway section



Source: R Conway 2019

4 DRIVEWAY ACCESS

4.1 ACCESS TO PUBLIC ROAD

The minimum requirement in maintaining safe access from the proposed carport onto Riverview Road is the need to provide sufficient sight distance for drivers to observe a possible conflict with other vehicles and allow for sufficient time to take evasive action should it be required.

An accepted approach to calculating the provision of safe and efficient access to and from the carport is to ensure that there is sufficient sight distance to enable non-priority traffic (i.e. traffic turning into and out of the driveway) to carry out their turning movements without unduly interfering with mainstream traffic flow.

AS 2890.1:2004 *Parking facilities – Off-street car parking* sets out the sight distance requirements for access driveways. The speed zone on Riverview Road is 50 km/h and sight distance from the location of the access driveway is set out in **Table 1**:

Table 1: Sight distance requirements for development proposal

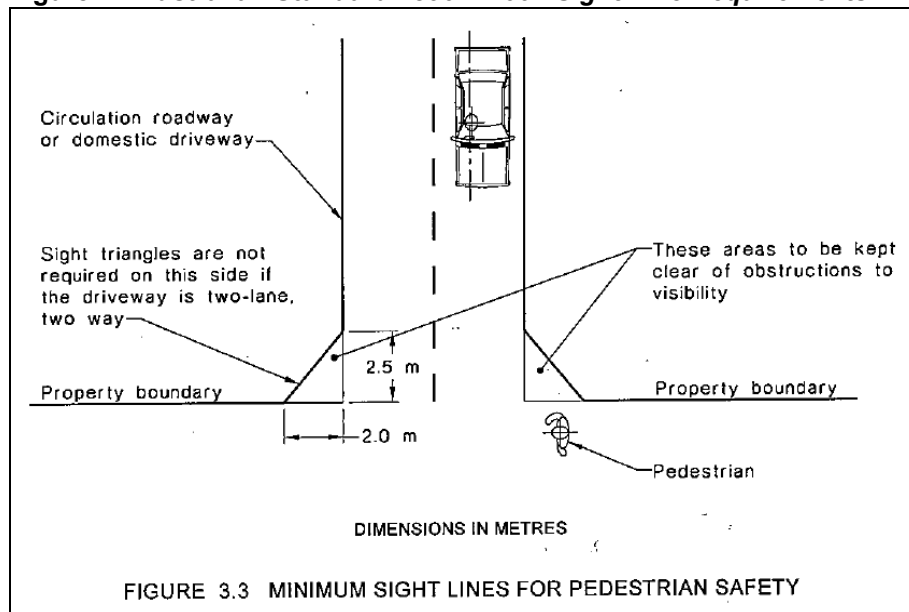
Access	Sight Distance Required	Sight Distance Available
Riverview Road	40 metres (north)	147 metres
	40 metres (south)	80 metres

Source: AS 2890.1:2004 (domestic property)

The sight distance in both directions from the proposed driveway access, therefore, exceeds the requirements of AS 2890.1:2004.

4.2 PEDESTRIAN SAFETY

It is essential that clear sight lines are provided for vehicles exiting a driveway onto a public footpath. There is no footpath on Riverview Road in front of the site, however, pedestrians do walk on the road adjacent to the guard rail. AS 2890.1: 2004 recommends 'sight triangles' as shown in **Figure 7** (Figure 3.3 of AS 2890.1:2004). Driver eye height for a standard B85 vehicle is 1.15 metres above surface level, therefore, a driver exiting the carport will have clear sight lines to any pedestrians walking along Riverview Road.

Figure 7: Australian Standard 2890.1:2004 Sight Line Requirements

Source: AS 2890.1:2004

4.3 CRASH STATISTICS

A concern was raised by a Council officer that the existing guard rail had been installed due to road crashes in this location. It is difficult to understand why this location, being on a straight section of Riverview Road with a 50 km/h speed zone, would be hazardous. Nonetheless, RMS crash statistics were obtained from Council's Acting Traffic Coordinator which revealed the following crashes for the period 2004 to 2018:

- 2016 crash 63 metres north of guard rail - run off road injury.
- 2006 crash 30 metres south of guard rail - hit parked vehicle injury.

Both of these crashes occurred away from the location of the guard rail. In this regard, it is considered that the guard rail was installed due to the steep drop-off close to the road carriageway. Guard rail installation is considered appropriate in such circumstances.

5 CONCLUSION

The proposed carport at 141 Riverview Road, Avalon Beach has been assessed to determine compliance with the relevant Australian Standard, access to and from Riverview Road and impact upon on-street car parking.

The assessment indicates that:

- The dimensions of the proposed carport comply with the requirements of car parking space dimensions recommended by AS 2890.1:2004.
- The proposal will result in a net gain of one (1) parking space.
- Vehicle access to the carport has been checked using the ground clearance template Figure C1 of AS 2890.1:2004 and reveals that there is sufficient clearance to avoid vehicle scraping.
- Driver sight distance from the carport to vehicles travelling on Riverview Road exceeds the requirements of AS 2890.1:2004.
- Sight lines to pedestrians walking along Riverview Road exceed that required by AS 2890.1:2004.

The proposed carport at 141 Riverview Road, Avalon Beach is considered to meet the requirements of the relevant standard and accepted traffic engineering practice. In the professional opinion of the author, the proposal is worthy of Council's approval.

Garry Kennedy



Director