TRAFFIC IMPACT REPORT AND CAR PARKING CERTIFICATION

1 EDNA STREET, KINGSWOOD, NSW

Proposed New Generation Boarding House

Prepared for:	Designcorp Architects Pty Ltd
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INDEX

Introduction

SafeWay TMS was commissioned by Designcorp Architects Pty Ltd to prepare a Traffic Impact Report and a Car Parking Certification for the proposed New Generation Boarding House located at 1 Edna Street, Kingswood.

The proposed development will provide

- 16 rooms for guests
- A communal area
- A common room.

This report will assess the traffic impacts of this proposed development on the surrounding environment and the compliance of the proposed car parking with the Australian Standards and the Penrith DCP. In the course of preparing this assessment, the subject site and its environment have been inspected, plans of the development examined, and all relevant traffic data collected and analysed.

Background and Existing Conditions

Location and Land Use

The subject site is located at 1 Edna Street, Kingswood (with additional frontage to Callow Lane) and is currently occupied by a low density residential dwellings.

The Penrith LEP zones the subject site as R3 Medium Density Residential. Thus the proposed development is consistent with this zoning.

A small retail precinct is located adjacent to the east of the subject site, however the land use in the proximity to the proposed development predominantly consists of low density residential dwellings.

Edna Street is a local road that provides a travel lane and parking lane in either direction (Figure 1). Kerbs and gutters and street lighting are provided on both verges within the road reserve. Grassed verges are provided on Edna Street to facilitate the movement of pedestrians. The overall alignment of the road is relatively straight, offering good visibility.

Figure 1 – Edna Street in Proximity to the Subject Site

Figure 2 shows the site on the local road network from a street map perspective.

Figure 3 provides an aerial view of the immediate area surrounding the subject site.

Figure 2: Subject Site Location on Street Map

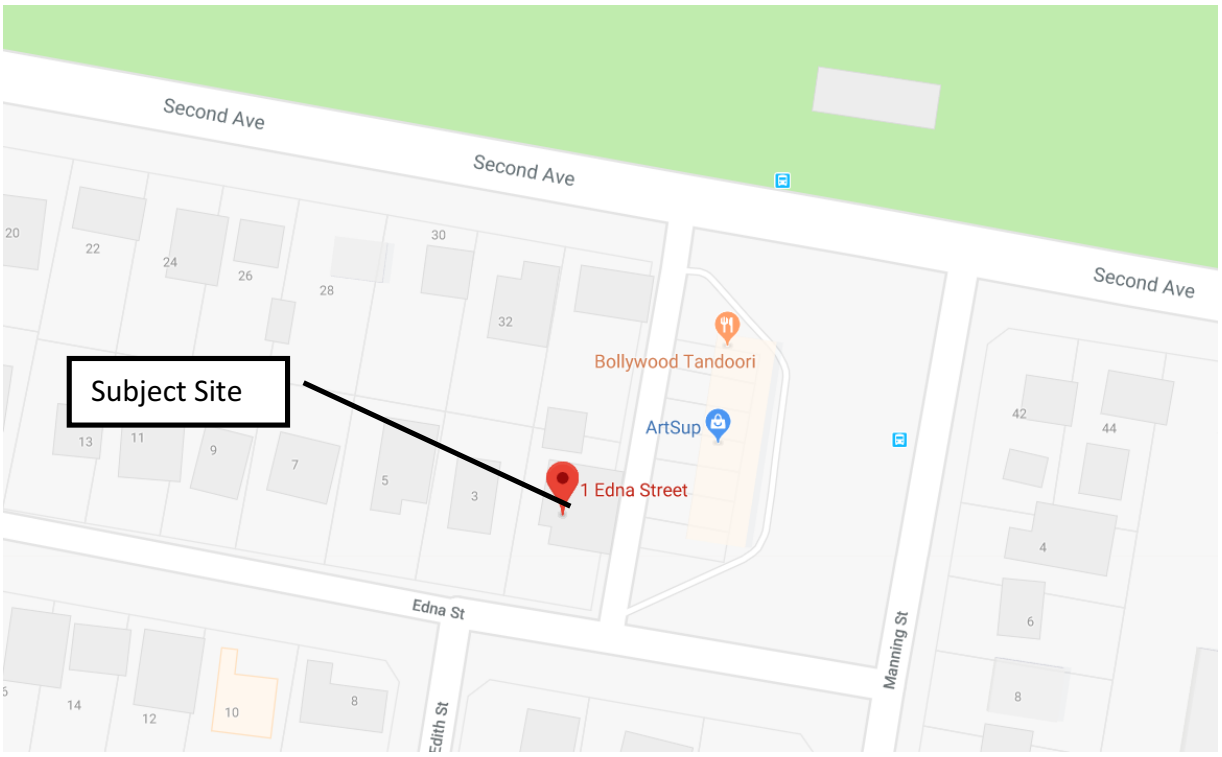

Figure 3: Aerial View of Surrounding Area

Public Transport

The following bus services operate on the roads in proximity to the subject site:

- 770 – Mount Druitt to Penrith via St Marys
- 774 – Mount Druitt to Penrith via Nepean Hospital
- 775 - Mount Druitt to Penrith via Erskine Park
- 776 - Mount Druitt to Penrith via St Claire.

Kingswood Station is located approximately 700 m to the northwest of the subject site. Kingswood Station is located on T1 Western Line. This line provide connectivity to a numbers of Sydney's population and economic centres including Penrith, Parramatta, Strathfield and the Sydney CBD.

Accordingly, the subject site is well served by public transport.

Active Transport

Pedestrian footpaths and grassed verges are provided on Edna Street and other roads in proximity to the subject site to facilitate the movements of pedestrians.

Traffic Impacts of the Proposed Development

The trip generation characteristics of the proposed development have been assessed in accordance with trip rates included in the Roads and Maritime Services Guide to Traffic Generating Developments.

The Guide defines a motel as a building substantially for overnight accommodation.

The Guide identifies a trip rate for motels as 0.4 trips per room.

An alternative is to use the rate for medium density residential dwellings (between 2 and 20 dwellings).

For small units up to two bedrooms the guide specifies a rate of 0.4 to 0.5 trips per dwelling.

Using the higher rate the proposed boarding is expected to generate approximately 8 peak hour trips. At an average rate of (approximately) a trip every 7- 8 minutes, the proposed development will have a negligible impact on the adjoining road network.

Car Parking Provisions

The State Environmental Planning Policy (SEPP) Affordable Rental Housing specifies a rates of 0.5 spaces per room.

Accordingly the development (16 rooms) requires 8 parking bays.

The proposed development provides:

- Nine parking bays in a basement car park
- An at grade parking bay for the mobility impaired
- 4 motor cycle parking bays
- 4 bicycle parking spaces.

The proposed parking supply complies with SEPP specifications.

Car Park Design Review

AS 2890.1-2004 Compliance

This section will investigate the compliance of the proposed car park with the requirements outlined in AS 2890.1-2004 and AS 2890.6-2009.

Car Space Dimensions

In accordance with the requirements specified in Australian Standard AS:2890.1 residential car parking is categorised as a User Class 2 Off-Street Car Parking Facility, namely:

Long-term city and town centre parking, sports facilities, entertainment centres, hotels, motels, (generally medium term parking.

The requirements for User Class 2 car parks are as follows:

- Bay width 2.5m;
- Bay length 5.4m; and
- Aisle width 5.8m.

The proposed development complies with this specification.

Blind Aisles

According to AS2890.1-2004, blind aisles must be extended by a minimum of 1m beyond the last parking space. Where a parking space is bound by a wall, it is required to be widened by at least 0.3m.

The proposed development basement parking level comply with these specifications.

Mobility Impaired Parking

The proposed development's design includes 1 parking space for the mobility impaired. Australian Standard AS2890.6:2009, stipulates the following requirements for these spaces:

- A parking space of minimum dimensions 2.4m x 5.4m; plus
- An adjacent shared space of equal dimensions; and
- Indication of appropriate markings and bollard instalment along the shared space.

The proposed development complies with these specifications.

Driveway Widths

Australian Standards specify that one way ramps should have a width of 3.0m and two way ramps 5.5m (between 0.3m kerbs). However Australian Standards further specifies that for developments generating less than 30 trips per hours a width of 5.5m can be provided for the first 6m from the property boundary after which a width of 3m can be provided.

The proposed development provides a driveway width of 6.1m for the first 6m from the property boundary and then narrows to a 3.6m which complies with Australian Standards.

Ramps

AS 2890.1-2004 states the grade requirements for straight ramps at private or residential car parks as follows:

(i) The maximum gradient for a domestic driveway shall 1 in 4 (25%).

(ii) A stepped ramp comprising a series of lengths each exceeding 1 in 5 (20%) grade shall have each two lengths separated by a grade of not more than 1 in 8 (12½%) and at least 10 m long.

(iii) Transition ramps of 2m in length will typically be sufficient to prevent vehicle scraping

The proposed development's access ramp provides a grade of 1 in 20 (5 %) for the first 6 m from the property boundary, a maximum grade of 1 in 4 (25%) and transition ramps of 1 in 8 (12.5%), and thus complies with Australian Standards

Swept Path

Swept path figures of an 85th Percentile Australian Vehicle manoeuvring within the car park are included in Appendix A.

The swept paths indicate that due to the relatively narrow frontage of the subject site, vehicles are required to undertake multi-point turns within the circulation aisles to access some parking bays and also to egress the car park.

While it is recognised that this is not a preferred situation, due to specific site constraints it is not possible to provide sufficient width for vehicles to access / egress the car park with a single manoeuvre.

Conclusions

Based on the assessment presented in this report, it is considered that:

- SafeWay TMS was commissioned by Designcorp Architects Pty Ltd to prepare a Traffic Impact Report and a Car Parking Certification for the Proposed New Generation Boarding House located 1 Edna Street, Kingswood.
- The development is proposed to consist of 16 room for guests and a common room.
- The site is located in proximity to a number of bus and rail services and is well served by public transport.
- The proposed development is expected to generate approximately 8 peak hour trips. At an average of a trip every (approximately) 7 - 8 minutes, the proposed development will have a negligible impact on the adjoining road network.
- The car park assessment indicates that the proposed development's car park typically complies with AS 2890.1-2004 specifications.

Appendix A – Swept Path Analysis