

Rose Property Group
51 Riley Street
WOOLLOOMOOLOO NSW 2011

Attention: Mr Nick Jackman

5 December 2007

Dear Nick,

Proposed Residential Subdivision, Kanangra Drive, Gwandalan

As requested, MWT has reviewed the amended plans for the proposed subdivision on Kanangra Drive, Gwandalan. This letter sets out our findings, and should be read in conjunction with our report, "Kanangra Drive Gwandalan Subdivision" dated 6 August 2007.

Background

MWT prepared a traffic impact assessment of a proposed subdivision on Kanangra Drive at Gwandalan, which consisted of 215 residential lots, with vehicular access via three new tee intersections on Kanangra Drive.

That study reviewed the existing and proposed road system, the likely traffic generation of the subdivision and its distribution, and the existing and future operation of intersections, including holiday traffic effects and the effects of growth in traffic on Pacific Highway. It concluded that the proposed subdivision would have satisfactory impacts on the surrounding road system.

Amended Development Proposal

Since that report was prepared, amendments have been made to the layout of the subdivision, which have resulted in a reduction in the number of lots from 215 to 187 lots. Vehicular access to and from Kanangra Drive would remain the same as for the previous scheme, with three new tee intersections. The layout of the internal road system has also been amended. Vehicular access for most lots fronting Kanangra Drive would be provided via internal roads, rather than directly from Kanangra Drive.

Effects on the External Road System

The reduction in the number of residential lots proposed in the subdivision would reduce the volume of traffic generated by the subdivision from 183 vehicle trips per hour to 159 vehicle trips per hour. This would reduce the future traffic volumes on the surrounding road system from

those presented in our August 2007 report. The resulting two way traffic volumes are summarised in Table 1, in which the future volumes include ten years of background growth on Pacific Highway.

Table 1 – Existing and 10 Year Future Peak Hour Two Way Traffic Volumes (veh/hr)

Road	Location	AM Peak		PM Peak	
		Surveyed	Future ^A	Surveyed	Future ^A
Billabourie Road	North of Orana Road	35	35	37	37
Blue Wren Drive	South of Pacific Highway	14	15	27	29
Kanangra Drive	North of Pacific Highway	600	720	597	716
	North of Summerland Road	524	656	555	686
	North of Parraweena Road	285	429	205	348
	North of Orana Road	262	422	56	215
Orana Road	East of Kanangra Drive	208	224	151	167
	East of Billabourie Road	162	170	135	143
Pacific Highway	West of Kanangra Road	1,604	1,924	1,744	2,091
	East of Kanangra Drive	1,238	1,484	1,372	1,644
Parraweena Road	East of Kanangra Drive	334	346	381	393
Summerland Road	West of Kanangra Drive	391	403	442	454

^A Future includes 10 years of background growth and development traffic

The results demonstrate that the greatest increases in traffic would be expected to occur along Kanangra Drive, as this is the only route for traffic in and out of Gwandalan. Increases on other local roads would be minor.

The previous assessment based on the larger subdivision analysed the operation of the key intersections in the local area with and without the traffic generated by the proposed subdivision. This found that with the additional traffic, the intersections would continue to operate at satisfactory levels of service. It therefore follows that the intersections would operate at satisfactory levels of service with the reduction in the additional traffic generated by the subdivision.

Road Layout

The internal road system is shown in the attached figure, and is made up of roads of three standards:

- 22m reserve with 11m carriageway (12m on bus route) and 5.5m verges (Road 1)
- 16.5m reserve with 7.5m carriageway and 3m and 6m verges (Roads 2 to 6)
- 6.0m reserve and 6.0m carriageway (Lane 7)

It is noted that footpaths are not shown on the attached subdivision plan, however it is proposed that 1.2m footpaths be provided on each side of Road 1 and on one side of Roads 2 to 6. Parking would be permitted along the carriageways of all internal roads, with the exception of Lane 7.

Road 1 would be able to accommodate the extension of the bus service, noting that Council's DCP66 requires a slightly wider reserve of 23m for bus routes. This minor deviation from the DCP requirement is considered satisfactory and it is understood that this has been discussed with

Council officers. The bus route is expected to operate along Kanangra Drive and the southern loop formed by Road 1.

The reserve width proposed for Roads 2 to 6 complies with the requirements of the DCP for access streets. The layout of the road system encourages drivers to use the collector/bus route roads to travel between Kanangra Drive and the access streets, and the access streets would not tend to be used as through routes due to their connectivity. This will ensure that traffic volumes on the access streets would remain below 1,000 vehicles per day as indicated in the DCP.

Lane 7 would provide access to individual lots which have frontage to Kanangra Drive. It would function as a shared space, with pedestrians, cycles and vehicles sharing the road space. The carriageway width would permit vehicles to pass at low speed, and it is recommended that parking not be permitted along Lane 7.

In order to limit vehicle speeds to the maximum street speeds set out in the DCP, it is recommended that appropriate measures to control speed be included where speeds would otherwise exceed 40kph on access streets and 50kph on collector/bus route streets. Details of these should be included on road design plans when they are prepared.

The overall layout of the road system is considered to be satisfactory, providing for the movement of vehicles (including buses), bicycles and pedestrians.

Conclusions

The proposed amendments to the proposed subdivision at Gwandalan would have satisfactory impacts on the surrounding road system. The internal layout of the proposed road system is satisfactory, subject to the provision of speed control measures to limit vehicle speeds to the design speeds set out in Council's Subdivision DCP.

I trust that this information is satisfactory. Do not hesitate to contact this office should you wish to discuss any aspect of this submission.

Yours faithfully,

A handwritten signature in black ink, appearing to read 'B Masson', with a long horizontal flourish extending to the right.

Bruce Masson

Director

Email: bruce.masson@mwtttraffic.com.au



Legend

- Trees to be retained (approximate location)
- <15m frontage : 3 Lots
- Total No of lots : 187 Lots

