

8 June 2010

Rockdale City Council  
2 Bryant Street  
Rockdale NSW 2216

Attn Mr Michael Maloof

Dear Sir / Madam

**RE: DA 2010/237 - 20 LEVEY STREET WOLLI CREEK  
JRPP INFORMATION**

We refer to Development Application 2010/237 submitted to Council on 14 December 2009 for 20 Levey Street Wolli Creek.

At the Joint Regional Planning Panel meeting of 13 May 2010 the Panel deferred consideration of the Development Application until additional information was received in relation to building height and the above ground carparking.

In respect of the issues raised by the JRPP in accordance with Council's letter dated 26 May 2010 we advise as follows:

**1. BUILDING HEIGHT**

At the Rockdale Council meeting of 19 May 2010, Council formally adopted an amendment to DCP 62 for Wolli Creek precinct which, inter alia, deletes the precise building envelopes for the subject site and allows buildings of the form and height proposed in the DA. This means that Council's policy position is not being pre-empted by the determination of the DA by the Panel. The DA is now consistent with Council policy on height for the site.

However due to the wording of Rockdale LEP 2000 the development standard remains the height within the DCP 62 dated 15 March 2006 even though this has now been superseded in a policy sense by Council's resolution of 19 May. Determination of a SEPP1 objection is still required as part of the DA determination. A supplementary SEPP 1 comment is attached which covers the key SEPP 1 issues. This supports and updates the SEPP 1 objection lodged with the DA in 2009.

**2. CARPARK CONSTRUCTION**

**Geotechnical / Construction methodology**

Rockdale Hotel undertook a Geotechnical, Acid Sulphate and Environmental investigation of the site with Jeffery and Katauskas / Environmental Investigation Services in 2003. Further comprehensive environmental assessment of the site was conducted in 2009 in accordance with SEPP 55 requirements. These reports were updated and lodged with the DA and have been assessed by Council.

This investigation identified the following key issues in relation to the construction of the building and associated basement car parking:

- Bedrock depth was at around 30 – 39m depth from existing ground level
- Fill Material is 1.2 – 2.0m thick over the site
- Water table was at up to 1.8m below the surface
- Acid Sulphate soils were present and would need treatment to be removed from the site and disposed of as treated material.
- The groundwater had a low level pollutant contamination and potential for discharge from dewatering as acidic.

Jeffery and Katauskas were also requested to comment on possible structural solutions for the building and carpark construction given the investigation results. Part of this assessment was to consider whether or not it was practical and feasible to build a carpark under the watertable.

To provide absolute surety of a watertight carpark and excavation under the watertable it was viewed that either a Diaphragm wall or a Secant pile system would be required. The former is extremely expensive, and the latter still expensive but also provides less surety as a watertight solution. In addition to this, a deeper excavation would bring the additional costs of larger and greater temporary anchors, acid sulphate treatment, larger volume of excavation, temporary and ongoing dewatering.

After due consideration of this advice in concert with qualified cost advice, the current hybrid parking design was evolved. It locates as much carparking underground as possible in one basement level above the watertable and the remainder above ground for part of the building footprints. The basement cannot be enlarged further as the retention of the existing hotel building and requirements for deep soil areas for landscaping limit the site area available for a basement. This approach is also consistent with recent projects constructed in the area with similar site circumstances.

The above ground parking levels are screened by residential and hotel uses or will have high quality facades with appropriate architectural detailing. It is not our intention to build this space as a blank carpark façade but rather as an architecturally integrated part of the podium / building. This is important for the hotel use of the site as well and the public domain. This design detail will be fully resolved in the subsequent construction DA.

### **Feasibility**

The provision of additional below ground parking is not cost effective. We have attached a commentary on cost from our Quantity Surveyor; MBM dated 31 May 2010.

To put this in basic terms of cost per carspace, the cost to relocate carpaces to be under the water table and allow for acid sulphate treatment would be an additional \$80,000 per space (i.e. \$95,000 less the cost of the above ground space of \$15,000).

#### ***Residential***

105 spaces @ \$80,000 extra per space = \$8,400,000

The net gain in usable floor space where the above ground carpark is located is limited as the podium carparking area would need to be replanned to ensure adequate compliance with SEPP 65 and other design policies. The space created would also be at the lower end

of valuation given its aspect (mainly south and internal to the site) and proximity / outlook to the existing hotel and associated driveway.



If Level 1 and Level 2 were replanned and 50% of the area were recovered as saleable area approximately 1847m<sup>2</sup> of residential space ( say 18 apartments) would result (1839m<sup>2</sup> + 1855m<sup>2</sup> x 50% = 1847m<sup>2</sup>). Given the valuation for this floor area less land, construction, marketing, commissions and GST, a net return would be around \$1000/m<sup>2</sup> or \$1,847,000. This results in an additional project cost of \$6,553,000.

This extra cost would render the project unfeasible.

#### **Hotel**

157 spaces @ \$80,000 extra per space = \$12,560,000

The proposed hotel expansion is at its market limit and any additional rooms gained in the levels currently proposed as carparking would be beyond reasonable market take-up.

This extra cost would render the project unfeasible.

#### **Contamination**

The site as detailed in the reports provided has two minor issues:

- Minor contamination in the fill material in two specific locations – These are proposed to addressed by the carpark excavation
- Groundwater with elevated concentrations of heavy metals

Parking below the water table is not appropriate given the contamination within the groundwater. Although the site can be remediated (see Jeffery and Katauskas / EIS Geotechnical / Acid Sulphate and Environmental Reports, 2003 / 2009 update) the ground water quality presents engineering and life cycle problems for structure and dewatering.

Any site dewatering will need to be assessed and determined whether it can be discharged to Council's stormwater or Sydney Water's sewer or treated on site – these options are subject to testing and agreement with the relevant authority. These options will also have associated costs – the latter being significant.

Despite a requirement to tank the basement in the draft DA conditions this type of structure will still need to have a backup system i.e. pits and pumps and represents an ongoing risk, capital expense and maintenance issue for an Owners Corporation.

#### **Overview**

The proposed carpark solution is physically appropriate, sustainable and cost effective as it provides:

- A cost effective sustainable solution for the parking (limited maintenance, natural ventilation, lower impact construction).
- Reduces complex and time consuming temporary works (i.e. shoring, anchors acid sulphate treatment, and dewatering)
- Less excavation spoil (treated acid sulphate material) removal.
- Reduces long term building risk with underwater carparks (expensive membrane repairs or use of pumps)
- Less operating costs for the future Owners Corporation and Hotel

- Creates elevated roof top spaces for residential and hotel amenity
- Uses that part of the building envelope where only poor quality residential could be provided
- Enables the total scheme to be feasible, which includes dedication to Council of the land for the Gertrude Street extension.



The above ground car parking is now a common and acceptable building form in inner Sydney in precincts of sandy soils and high water tables, such as Wolli Creek (eg the Proximity building), Moore Park Gardens and Victoria Park.

It should also be noted that a replacement of the above ground carparking with floor area does not mean the tower element could be deleted. The additional 1847m<sup>2</sup> of floor area that may be retrieved would mean that the DA was still well below the FSR allowed on the site.

We trust this advice responds to the issues raised by the Panel and within Council's letter of 26 May 2010.

Should additional information or clarification be required please contact the undersigned.

Yours Faithfully

A handwritten signature in blue ink, appearing to read 'CHRIS RYAN', with a stylized flourish at the end.

**CHRIS RYAN**  
**DEVELOPMENT MANAGER**

Encl.

MBM letter -31 May 2010

Main Points of SEPP 1 Objection RPS – 8 June 2010

31 May 2010  
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Dear Sir,

**RE: Masterplan DA - 20 Levey Street, Wolli Creek**

We have reviewed the proposed DA carparking plans and sections regarding the above mentioned project. Based on our previous experience at Wolli Creek, Mascot and Green Square basement carparking will need to be designed for the prevalent ground water conditions and likely acid sulphate soils.

We provide below our database for the various carpark options:

On grade carparking	\$4,500/car
Above ground carparking (multi level)	\$15,000/car
Basement carparking	\$50,000/car
Basement carparking in watertable	\$85,000/car
Basement carparking in watertable & ASS	\$95,000/car

I trust this meets your current needs.

Yours faithfully,  
**MBM Pty Ltd**



David Madden