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Your ref

JBA Planning
PO Box 375
NORTH SYDNEY NSW 2059

10 March 2011

Attention: Claire Wright

Dear Claire,

**RE: PROPOSED COSTCO "CROSS ROADS" STORE – CNR PARKERS FARM PLACE &
BEECH ROAD, CASULA NSW
PRELIMINARY FLOOD ASSESSMENT**

We write in response to your recent request for preliminary flood assessment advice with respect to the above site. Our assessment is as follows:

Site Description

The site proposed for Costco is on the south west corner of the intersection of Parkers Farm Place and Beech Road, Casula NSW. It comprises part (approximately 6ha) of a larger allotment known as Lot 200 in DP 1090110 located in the "Cross Roads" development. The site is bounded on the western side by Maxwells Creek.

The site is presently vacant. The surface is relatively flat, grassed land displaying a gentle fall in a north-westerly direction. Along the frontage to Beech Road and part of Parkers Farm Place the site level is approximately 1m to 2m below the adjacent verge level. Past the western boundary of the site the ground falls rapidly through a vegetated riparian zone to Maxwells Creek.

The topography would indicate that the site has been subject to a cut/fill operation. The site history investigation indicates that Maxwells Creek formerly occupied a channel within the site. The geotechnical investigation findings support these observations.

Preliminary Flood Assessment

Preliminary investigation of the site included discussion with Liverpool City Council regarding stormwater drainage and potential flood impacts. These were general discussions aimed at gaining some understanding of Council's likely requirements for any development on the site. A review of Council's Flood Planning Area Maps was also undertaken and this showed the site to be partially in the Q100 flood plain of the creek near the western site boundary (Maxwells Creek). We were advised by Council that no filling of

the site could occur in the Q100 floodplain without Council's approval. In the event that filling was approved, flood storage must be provided elsewhere on the site to compensate for the filled area. A flood study would be required, addressing pre and post development conditions, to enable Council to assess the impacts of the proposed filling on flood behaviour, prior to determination of any Development Application for the site. At the time of these discussions no survey information was available for the site.

More recent discussions with Council have centred on obtaining actual flood levels for the site. Council advised that they were unable to provide electronic information but that we were able to visit, view their hard copy flood map and manually record levels if desired. We met with Waliminipelli Siripala at Council's offices on Tuesday 23 November 2010.

Council's Flood Map revealed the following approximate flood levels for Maxwells Creek adjacent the site:

- Q100 at the northern end of RL35.0 and at the southern end of RL36.3
- PMF at the northern end of RL37.1 and at the southern end of RL37.5.

Subsequent to that visit, preliminary survey information for the site was received from our surveyor, Stutchbury Jaques. This indicated that:

1. The site level on the western boundary at the northern end (lowest point) was RL37.39 and at the southern end was RL38.67. These levels are higher than both the Q100 and PMF levels mentioned above for the respective locations.
2. The site levels along the western boundary were not consistent with the contours shown on Council's Flood Planning Map. The actual levels here showed a consistent gentle fall from south to north.

Based on the above flood levels and the preliminary survey information it would seem that the site will not be inundated in either a Q100 or PMF event. Further to point 2 above, it appeared that the site may have been filled along its western side to raise it above the flood level. The presence of fill in this area was subsequently confirmed by the geotechnical investigation, as mentioned previously.

It would seem reasonable to assume that this filling was undertaken as part of the development of the Cross Roads site and we have recommended that confirmation of this be sought. We have also recommended that the design site levels, on which the Council DA approval for Cross Roads was presumably forthcoming, are obtained to ensure they are consistent with the current site configuration. It was assumed that either the Council or the current owner would be able to provide this information.

Council has advised us that much of their electronic records system is still unavailable following the recent fire. To date they have been able to provide neither the as-built documentation for the Cross Roads development nor the original DA. This loss of information is confirmed in their letter dated 13 December 2010 to COSTCO's environmental consultant, JBS Environmental.

We are advised that COSTCO has approached the current owner and requested this information. To date they have not been provided with it.

On the assumption that this information may never be found we again spoke to Waliminipelli Siripala (Siri) of Council. In our email to Siri dated 27 January 2011 we forwarded the recently received survey data for the site along with our Flood Planning Level Mark-up drawing dated 25/01/2011. The Flood Planning Level Mark-up drawing showed the location of the proposed COSTCO site and the relevant Council 1% AEP and PMF Flood Planning levels in that vicinity. We pointed out that, based on the survey levels, it is apparent that the COSTCO site will be above both the relevant 1% AEP and PMF levels. We stated our view, based on this information, that development of the site could proceed without the need for a flood study and we asked Siri to confirm Council's position on the matter.

Siri responded on 31 January 2011 expressing the view that the COSTCO portion of the site is now not affected by the 1% AEP flood and advising that the undertaking of a flood study for the purpose of development of the land will not be a Council requirement.

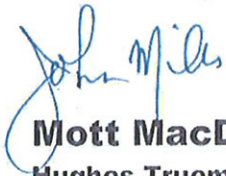
We note that JBS Environmental has obtained a Section 149 Certificate and Flood Planning Levels from Council for Lot 200 DP 1090110. It is noted that these indicate that Lot 200 is flood affected. However the southern extremity of Lot 200 is approximately 650 metres away from the proposed Costco site. We understand that the Flood Planning levels stated by Council (PMF of RL 39.9 and Q100 of RL 37.6) are relevant at that southern extremity but not at the proposed COSTCO portion of the site.

Summary

Based on the investigations and discussions mentioned above we therefore believe that Liverpool Council will permit development on the proposed COSTCO portion of Lot 200 in DP 1090110 without the need for a flood study. Council also advise that this portion of the site is no longer considered to be affected by the 1% AEP flood.

We trust the above comments provide sufficient information for your requirements. Please let us know if you require any further input.

Yours Faithfully,



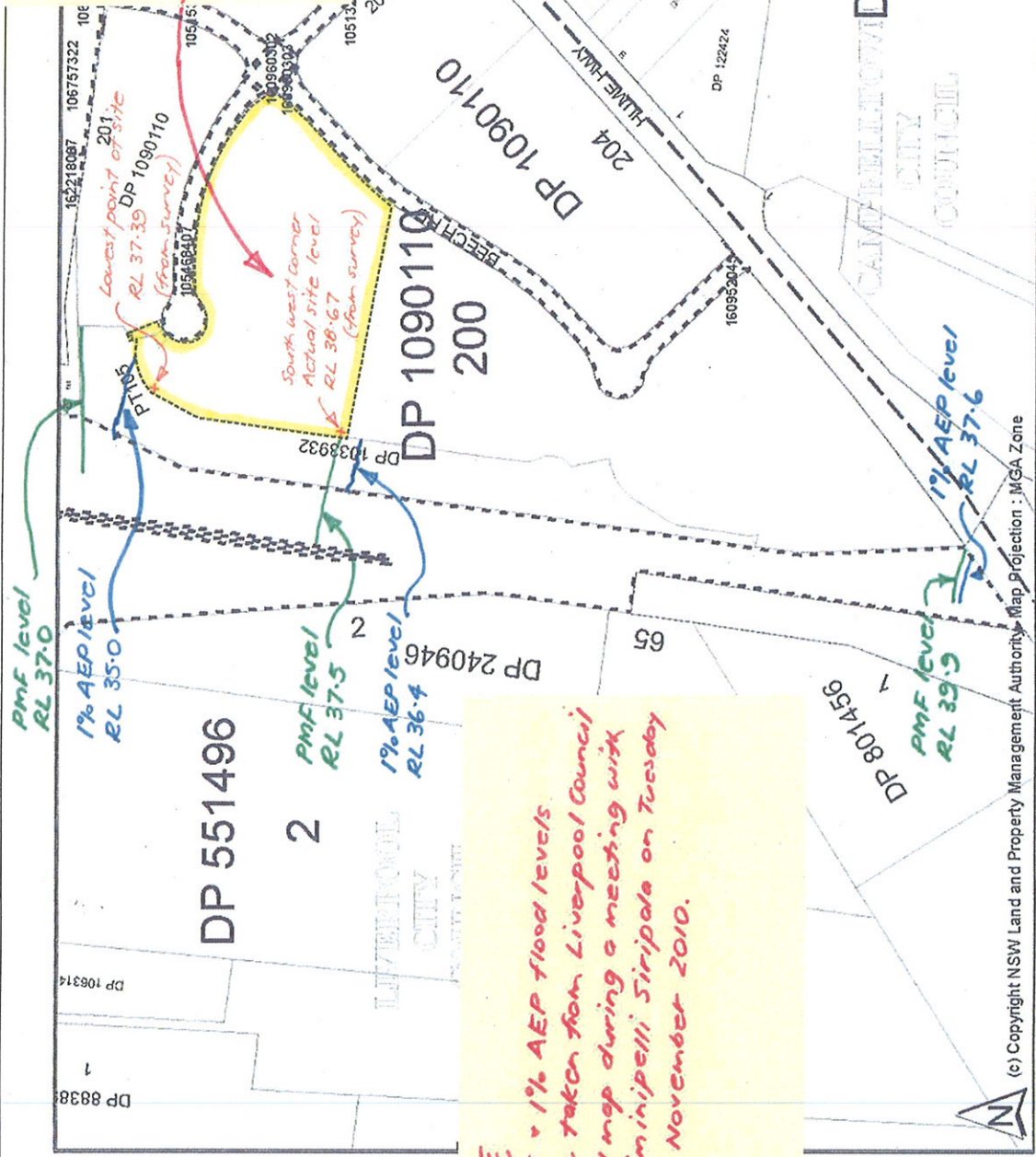
Mott MacDonald

Hughes Trueman

JOHN MILLS

Project Manager

Attachments: MMHT Flood Planning Level Mark-up dated 25/01/2011



Our client is looking at this portion of Lot 200 in DP 1090110.

NOTE
PMF & 1% AEP flood levels were taken from Liverpool Council flood map during a meeting with Walimipelli Siripala on Tuesday 23rd November 2010.

This information is provided as a searching aid only. While every endeavour is made to ensure the current cadastral pattern is accurately reflected, the Registrar General cannot guarantee the information provided. For all ACTIVITY PRIOR to SEPT 2002 you must refer to the RGs Charting and Reference Maps.

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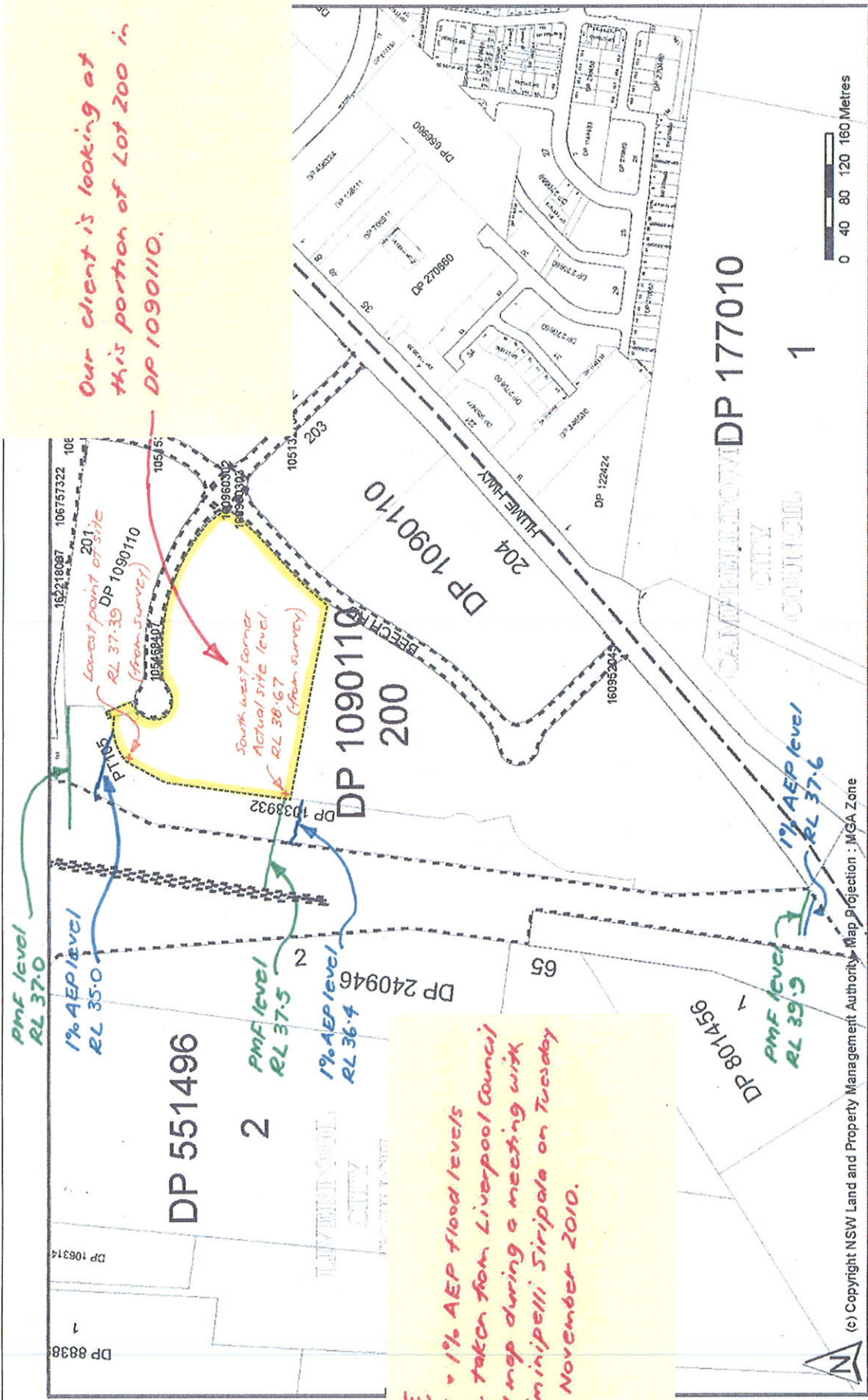
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Legend Site Location

Matt MacDonald Hughes Truman
Flood Level Mark-up
J.M. 25/01/2011

Figure 2 Cadastral Plan	
JBS ENVIRONMENTAL	
Site Address: Cnr Parkers Farm Place and Beech Rd, Casula	
Client:	Job Number: 41364
Project: Due Diligence Assessment	File: 41364_02.cdr

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Matt McDonald Hughes Trueman
Flood Level Mark-up
J.M. 25/01/2011