



Aargus

Environmental - Remediation - Engineering - Laboratories - Drilling

23rd July 2012

Sam Mustaca sam.mustaca@vogueagency.com.au

Cc: Charles Hill charleshill@optusnet.com.au

Dear Sam/Charles,

Re: Preliminary Geotechnical review of Master Plan concept

I refer to drawing number 2001-040 AW provided in draft form to Aargus on 23rd July 2012 in draft form and provide the following comments from a geotechnical perspective.

1. The western half of the site falls into the Pittwater Council Geotechnical Risk Map (H1) as high risk.
2. There have been no reported landslides in Warriewood as determined within the Australian Geomechanics Vol 42 No1 March 2007 Pittwater LGA Landslide Likelihood Assessment paper.
3. Lots within the proposed development area and in specific the high risk areas are capable of being built upon as long as the Geotechnical Risk Management Policy for Pittwater – 2009 and the AGS 2007 Guidelines are adhered to. The property is located on the upper escarpment where the Hawkesbury Sandstone geology is prevalent.
4. Grades proposed for lots and roads can be built upon but a geotechnical assessment will be required for each lot within a high risk area (~half).
5. Roads will have to be on cut.
6. Batters will have to be at safe batter angles or be appropriately retained.
7. Any retaining walls will have to be to an engineered design.
8. Dwellings on slope will be cut or founded to bedrock, fill will be retained by engineered design.
9. Fill height will be restricted in accordance with guidelines and generally retained to rock in high risk areas.
10. All completed works will need to be certified by a suitably qualified engineer.
11. All blocks in high risk areas will require pre and post risk assessments as per design requirements (AGS 2007) with any recommendations adopted and modified within dwelling designs.

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We are happy to provide further aspects or comments regarding the proposed draft master plan and any associated geotechnical or environmental information as required.

For and on behalf of
Aargus Pty Ltd



Nick Kariotoglou
Managing Director

The map displays the Pittwater Council area, highlighting geotechnical risk zones. A large area in the center is marked with a dense pattern of red crosses, indicating a high-risk zone. Other areas are marked with a pattern of red dots, indicating a moderate risk zone. The map also shows property boundaries, roads, and water bodies. A yellow line is drawn across the map, possibly indicating a boundary or a specific feature. The map is titled 'Pittwater Council - Geotechnical Risk Map' in the top right corner.

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