

MICHAEL ADLER AND ASSOCIATES

Consulting Geotechnical Engineer

PO Box 91
Church Point, NSW 2105
AUSTRALIA

Tel: +61 412 904 349

Fax: (02) 9999 5770

Mobile: 0412 904 349

EMAIL: michael@madler.com.au

Friday, May 4, 2018

Our Reference: 06/07390

Anne & Julien Bullier Gastgaldi
28 Dowling Street.
QUEENSCLIFF, NSW 2096

Dear Anne

Preliminary Landslip Assessment 20 Dowling St., Queenscliff

1) Introduction

This document presents a preliminary landslip assessment in accordance with the Northern Beaches Council 2011 LEP Planning Rules, Section E-10 Landslip Risk.

Site Location	- 28 Dowling St., Queenscliff Lot 39, DP 654780
Landslip Risk Class	- Partly A (Slopes < 5°) and partly B (Slopes 5° to 25°)
Proposed Development	- Two storey house close to centre of site Maximum excavation depth 1.1 m Maximum fill height < 2 m

2) Site Description

Site is on the western side of Dowling Street, located some 720 m west of Freshwater Beach. It is a rectangular shaped block. The property is trapezoidal shaped with plan dimensions of some 10 m x 30 m. The topography on the lot is generally level with an overall fall of less than 0.5 down to the east and an average inclination of less than 0.5° to the horizontal.

The existing development comprises a two storey house of weather board construction. It is located close to the centre of the lot. There has been no obvious significant previous excavation when this structure was constructed. The new proposed works will essentially be the replacement of the front (eastern boundary) retaining wall and fence. This will vary in height from 0.6 m to 1.1 m.

The remaining area is landscaped with some sealed pavements, grass and a number of small trees.

3) Geotechnical Conditions

The site is underlain by the Triassic age Hawkesbury Formation. There are considerable exposures of insitu rock adjacent to both the eastern and western boundaries.

The majority of this rock appears to be competent insitu sandstone that is not exhibiting any significant sign of instability.

The existing house appears to be founded on insitu rock. There was no obvious distress in the external walls of this building.

No past or present significant landslip features were observed on this or adjacent properties during our walk over inspection.

4) Recommendations

Using the Council flow chart check list (Section E-10) we note:

History of Landslip	- No/Unknown
Proposed Excavation > 2m	- No
Proposed Fill > 2m	- No
Site Developed	- Yes
Existing Fill > 1 m	- Possibly
Existing Excavation < 2m	- Very Unlikely
Natural Cliff > 3 m	- No

It is considered that a detailed Landslip Risk Assessment is not required and that it is unlikely that the reported proposed new works will increase the risk of instability for this site.

FINAL COMMENTS

The attached *Notes Relating To Geotechnical Report* are an intrinsic part of this report.

We do note that we have assumed in our costing for this investigation that you, the client, will contact us by phone on a number of occasions to discuss the proposed works, especially in regards to the finding presented in this letter.

Please do not hesitate to contact the writer if you would like to discuss this report.

Yours Sincerely



Michael A Adler BSc, BE, MSc, DIC, MIEAust, CPEng

NOTES RELATING TO GEOTECHNICAL REPORTS

Michael Adler & Associates

Introduction

These notes outline some of the methodology and limitations inherent in geotechnical reporting. The issues discussed are not relevant to all reports and further advice should be sought if there are any queries regarding any advice or report.

When copies of reports are made, they should be reproduced in full.

Geotechnical Reports

Geotechnical reports are prepared by qualified personnel using information supplied or obtained. They are based on current engineering standards of interpretation and analysis.

Information may be gained from limited subsurface testing, surface observations, previous work often supplemented by knowledge of the local geology and experience of the range of properties that may be exhibited by the materials present. For this reason, geotechnical reports should be regarded as interpretative rather than factual documents, limited to some extent by the scope of information on which they rely.

Where the report has been prepared for a specific purpose (e.g.. design of a three-storey building), the information and interpretation may not be appropriate if the design is changed (e.g.. a twenty storey building). In such cases, the report and the sufficiency of the existing work should be reviewed by Michael Adler & Associates in the light of the new proposal.

Every care is taken with the report content, however, it is not always possible to anticipate or assume responsibility for all situations such as:

- Unexpected variations in ground conditions. The potential for this depends on the amount of investigative work undertaken.
- Changes in policy or interpretation by statutory authorities.
- The actions of contractors responding to commercial pressures.
- Interpretation by others of this report.

If these occur, Michael Adler & Associates would be pleased to resolve the matter through further investigation, analysis or advice.

Unforeseen Conditions

Should conditions encountered on site differ markedly from those anticipated from the information contained

in the report, Michael Adler & Associates should be notified immediately. Early identification of site anomalies generally results in most problems being more readily resolved, and allows reinterpretation and assessment of the implications for future work.

Subsurface Information

Logs of a borehole, rock core, test pit, excavated face or cone penetration test are an engineering and/or geological interpretation of the subsurface conditions. The reliability of the logged information depends on the drilling/testing method, sampling and/or observation spacing and the ground conditions. It is not always possible or economic to obtain continuous high quality data. It should also be recognised that the volume or material observed or tested is only a fraction of the total subsurface profile.

Interpretation of the available subsurface information and application to design/ construction should take into consideration the spacing of the test locations, the frequency of observations and testing, and the possibility that geological boundaries may vary between observation points.

Groundwater observations and measurements not based on specially designed and constructed piezometers should be treated with care for the following reasons:

- In low permeability soils groundwater may not seep into an excavation or bore in the short time it is left open.
- A localised perched water table may not represent the true water table.
- Groundwater levels vary according to rainfall events or season.
- Some drilling and testing procedures such as rock coring or penetration testing mask or prevent groundwater inflow.

The installation of piezometers and long term monitoring of groundwater levels may be required to adequately identify groundwater conditions.

Supply of Geotechnical Information For Tendering Purposes

It is recommended that tenderers are provided with as much geological and geotechnical information as there is available. It is best practice to provide copies of all geotechnical related reports, opinions and data.