

**PRELIMINARY GEOTECHNICAL ASSESSMENT
FOR
PROPOSED ALTERATIONS AND ADDITIONS
AT
28 KARINA CRESCENT, BELROSE**

1.0 INTRODUCTION.

1.1 This assessment has been prepared to accompany an application for development approval.

1.2 The site is located in land that is subject to Area B on the Landslip Risk Map. The methods used in this Assessment are based on those described in Landslide Risk Management March 2007, published by the Australian Geomechanics Society. Also Council checklist contained within Clause E10 of Warringah DCP and the WLEP Map identifying the Landslip Risk Class as highlighted (red) below:-

	<i>LANDSLIP RISK CLASS (Highlight indicates Landslip Risk Class of property)</i>
☐	<i>A Geotechnical Report not normally required</i>
☒	<i>B Geotechnical Engineer (Under Council Guidelines) to decide if Geotechnical Report is required</i>
☐	<i>C Geotechnical Report is required</i>
☐	<i>D Council officers to decide if Geotechnical Report is required</i>
☐	<i>E Geotechnical Report required</i>

1.3 The experience of Hodgson Consulting Engineers spans some 25 years in Northern Beaches and the Greater Sydney area.

2.0 PROPOSED DEVELOPMENT

2.1 Construct a new carport and storage with various alterations and additions to the existing residence.

2.2 Details of the proposed development are shown on a series of architectural drawings prepared by MORPH architects Pty Ltd, Project No: 16163, Dwg No: A.02 to A.10 and dated May, 2021.

3.0 SITE LOCATION

3.1 The site was inspected for this assessment on the 28th May, 2021.

3.2 This average sized trapezoidal residential block has an easterly aspect. From the road frontage the moderately sloped road reserve slopes down to the rear of the existing residence where an approximately 2.0m high exposed Hawkesbury Sandstone rock escarpment drops down to a moderate to steep slope of average angles of 10 to 20 degrees continuing to fall towards the east.

4.0 SITE DESCRIPTION

4.1 From the road frontage the short shared concrete driveway crossing starts near the north western corner of the property heading east towards the single detached garage adjacent the north eastern corner of the existing residence. Pedestrian access to the main entrance of the existing residence is via the paved driveway and pathway that leads to the front balcony. Access to the rear of the property is via a gated fence and pathway on the southern side of the existing residence. Also access to the rear of the property is by a gate between the detached garage and northern side of the existing residence. At the rear of the existing residence is a lawn and deck area. Exposed Hawkesbury Sandstone was observed at the rear of the existing detached garage. A landscaped retaining wall supports the level lawn area above the existing 2.0m high exposed rock escarpment.

4.2 The existing residence is of timber and brick veneer construction supported by masonry walls and piers on strip and pad footings. At the time of our inspection no significant geotechnical hazards were identified and the existing residence was in good condition with no signs of significant movement due to geotechnical instability.

5.0 RECOMMENDATIONS

5.1 The proposed alterations and additions may require minimal excavation for any new footings that are required. The existing detached garage is built on the northern side boundary with the neighbouring garage positioned on the same boundary. The foundations of the existing structures cannot be seen at this time. Before the minor excavation for the new storage room is to commence the structural engineer it inspect the neighbouring garage's foundations and

5.0 RECOMMENDATIONS (Continued)

determine if the this will require any underpinning. If required, the works to support and/or stabilise the neighbouring property are to be carried out before excavation commences or as the structural engineer determines. The depth to the underlying bedrock is approximately 0.0 to 0.5 metres. We recommend that any new foundations required are to be taken to the underlying bedrock.

5.2 The proposed alterations, additions and existing site conditions were considered and applied to the Council Flow Chart for class B area as contained within Clause E10 of Warringah DCP and the WLEP. Based on this preliminary assessment, the proposed development works would be considered satisfactory from a Geotechnical and landslip perspective subject to the application of good engineering practice for the structural design and construction methods. As it is not proposed to undertake any major excavation for the future works it is therefore recommended that no further geotechnical assessment is required.

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