

**PRELIMINARY GEOTECHNICAL ASSESSMENT
FOR
PROPOSED ALTERATIONS AND ADDITIONS
AT
17 CONNEMARRA AVENUE, KILLARNEY HEIGHTS**

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>
<input type="checkbox"/>	<i>A Geotechnical Report not normally required</i>
<input checked="" type="checkbox"/>	<i>B Geotechnical Engineer (Under Council Guidelines) to decide if Geotechnical Report is required</i>
<input type="checkbox"/>	<i>C Geotechnical Report is required</i>
<input type="checkbox"/>	<i>D Council officers to decide if Geotechnical Report is required</i>
<input type="checkbox"/>	<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 new first floor addition over the existing residence.

2.2 Details of the proposed development are shown on a series of architectural drawings prepared by Your Style Designer Home Additions, Project No: WAD 1219 06 DA, Dwg No: Ground and First Floor, 3, 7 & 8 and dated 13th February, 2020.

3.0 SITE LOCATION

3.1 The site was inspected for this assessment on the 14th February, 2020.

3.2 This average sized residential block has an easterly aspect. From the road frontage the site rises moderately towards the west at 5 to 10 degrees flattening out to a gentle slope near the front of the existing residence extending to the rear boundary at an average slope angle of approximately 0 to 5 degrees. A cross fall slope that is moderately steep to the south is present at an average slope angle of approximately 10 to 15 degrees.

4.0 SITE DESCRIPTION

From the road frontage a concrete driveway crossing starts near the north eastern corner of the property with two concrete strips heading west towards the carport in front of the single garage. A terraced front boundary slope rises from the road reserve using small landscape stone and timber retaining walls south of the driveway. Pedestrian access to the main entrance at the rear of the carport is via the driveway. A gentle sloping lawn area is to the south of the driveway and in front of the existing residence. Access to the rear of the property is via pathways on the northern and southern side of the existing residence. At the rear of the existing residence is a gently sloping lawn area and two deck areas. One deck area is to the north and the other to the south of the lawn area. A small studio is in the south western corner of the property. Along the western rear boundary there is a sandstone flagging retaining wall supporting the higher neighbouring property. The existing residence is of brick veneer construction supported 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

The proposed alterations and additions may require minimal excavation for any new footings that are required. The depth to the underlying bedrock is approximately 0.5 to 1.0 metres. We recommend that any new foundations required are to be taken to the underlying bedrock.

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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