

**PRELIMINARY GEOTECHNICAL ASSESSMENT
FOR
PROPOSED ALTERATIONS AND ADDITIONS
AT
49 CARNARVON DRIVE, FRENCHS FOREST**

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, Project No: GOR 0421 01 DA, Dwg No: 1, 3 5 to 10 and dated 16th June, 2021.

3.0 SITE LOCATION

3.1 The site was inspected for this assessment on the 22nd June, 2021.

3.2 This average sized trapezoidal residential block has an easterly aspect. The main slope rises to the north west at average angles of 15 to 20 degrees as a cross slope to the subject property. From the road reserve a moderate to steep slope rises to the west of average angles of 5 to 15 degrees at the subject property's front boundary before flattening towards just to the west of the rear boundary.

4.0 SITE DESCRIPTION

From the road frontage the short concrete driveway crossing starts near the north eastern corner of the property heading west towards the attached double garage at the north eastern corner of the existing residence. The south eastern corner of the properties is terraced with small landscape rock retaining walls creating a level area at the front of the existing residence. Pedestrian access to the main entrance of the existing residence is via the concrete driveway and a pathway to the south of the driveway that leads to the front patio. Access to the rear of the property is via a gated fence on the northern side of the existing residence. Exposed Hawkesbury Sandstone was visible with a small masonry retaining wall built directly from the rock running along the northern side boundary. At the rear of the existing residence is a paved patio area with lawn areas on either side. The terraced rear garden area is dictated by the exposed and underlying Hawkesbury Sandstone with small masonry retaining walls creating garden beds and level areas of varying levels. A retaining wall runs along the southern side boundary. The existing residence is of brick veneer construction supported by a raft concrete slab and piers. 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 0.0 to 1.5 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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