

**PRELIMINARY GEOTECHNICAL ASSESSMENT
FOR
PROPOSED ALTERATIONS AND ADDITIONS
AT
3 MERRILEE CRESCENT, 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: ALE 0720 01 – POLY, DA, Dwg No: 1, 3, 6 to 12 and dated 3rd September, 2020.

3.0 SITE LOCATION

3.1 The site was inspected for this assessment on the 4th September, 2020.

3.2 This average sized rectangular residential block has a south easterly aspect. From the road frontage the moderate to steep sloped road reserve falls to the south at average angles of 10 to 20 degrees approximately parallel to subject property's front boundary. The main steep slope of the area falls to the south west across the subject property at average angles of 15 to 25 degrees. Exposed Hawkesbury Sandstone was observed in the road cutting.

4.0 SITE DESCRIPTION

From the road frontage the concrete driveway crossing starts near the north western corner of the property heading south east towards the under house single garage at the south western corner of the existing residence. The garage has taken the advantage of the slope of the site and there is some possible underpinning of the existing foundations observed under the existing residence. Pedestrian access to the main entrance of the existing residence is via the pathway from the northern side of the driveway that leads to the front verandah. Two small but stable stone retaining walls support the road reserve cut and garden adjacent the front boundary of the property allow a level lawn area to the north of the of the main entry pathway. Another stone and cemented retaining wall supports the uphill side of the existing driveway and was observed to be stable. Access to the rear of the property is via gated pathways on both sides of the existing residence. At the rear of the existing residence is a lawn area with some concrete pathways. At the southern corner of the existing residence is a small concrete landscaped retaining wall supporting the cut for the stairs that lead down to the garage floor level. Drainage for the subject property is seen at this corner of the existing residence at the lowest point of the site. The existing residence is of brick veneer construction supported by masonry walls and piers on strip and pad footings. Some minor cracking in the brickwork was observed near the north eastern corner of the existing residence. 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 1.5 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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