

## **PRELIMINARY GEOTECHNICAL ASSESSMENT:**

### **12 Kalianna Crescent, Beacon Hill**

<b>1.0</b>	<b>LANDSLIP RISK CLASS</b> ( <i>Highlight indicates Landslip Risk Class of property</i> )
<input type="checkbox"/>	A - Geotechnical Report not normally required
<input checked="" type="checkbox"/>	B - Geotechnical Engineer (Under Council Guidelines) to decide if Geotechnical Report is required
<input type="checkbox"/>	C - Geotechnical Report is required
<input type="checkbox"/>	D - Geotechnical Engineer (Under Council Guidelines) to decide if Geotechnical Report is required
<input type="checkbox"/>	E - Geotechnical Report required

## **2.0 Proposed Development**

- 2.1** Extend the existing laundry on the downhill side and construct a new deck on the downhill side of the proposed extension.
- 2.2** No significant excavations or fills are shown on the plans.
- 2.3** Details of the proposed development are shown on 6 drawings prepared by Cave Urban, drawings numbered 1 to 6, dated 11/3/21.

## **3.0 Site Location**

- 3.1** The site was inspected on the 13<sup>th</sup> April, 2021.
- 3.2** This residential property is on the low side of the road and has a S aspect. It is located on the gentle to steeply graded upper middle reaches of a hillslope. Medium Strength Hawkesbury Sandstone bedrock outcrops at various locations across the property. Where sandstone is not exposed, it is expected to underlie the surface at relatively shallow depths. The natural surface of the block has been altered with filling for a terrace on the downhill side of the house and lawn and garden areas across the property. The proposed development will not alter the surface further for the proposed works.

**3.3** The site shows no indications of historical movement in the natural surface that could have occurred since the property was developed. We are aware of no history of instability on the property.

## **4.0 Site Description**

The natural slope falls from the uphill property boundary to the downhill side of the house at an average angle of  $\sim 9^\circ$ . Sandstone rock faces up to  $\sim 4\text{m}$  high step down the slope on the downhill side of the house. The slope below the rock faces falls at an angle of  $\sim 16^\circ$  before easing to gentle angles near the downhill property boundary. Medium Strength Hawkesbury Sandstone bedrock outcrops on the uphill side of the house. Low stack rock retaining walls support the fills for lawn and garden areas on the uphill side of the house. The single storey sandstone block, brick and timber clad house with storage room below is supported by sandstone block walls and brick walls. The external supporting walls show no significant signs of movement. Fill provides a level platform for a terrace on downhill side of the house. The fill is supported by a stable sandstone block retaining wall up to  $\sim 1.0\text{m}$  high. Stable sandstone rock faces up to  $\sim 4\text{m}$  high step down the slope below the terrace. Dislodged sandstone joint block are embedded in stable positions in the slope on the downhill side of the house. Low stone retaining walls terrace the lawn covered slope near the downhill property boundary. The area surrounding the house is mostly garden and lawn covered with some paved areas. No signs of movement associated with slope instability were observed on the grounds that could have occurred since the property was developed. The adjoining neighbouring properties were observed to be in good order as seen from the road and the subject property.

## **5.0 Recommendations**

The proposed development and site conditions were considered and applied to the Council Flow Chart.

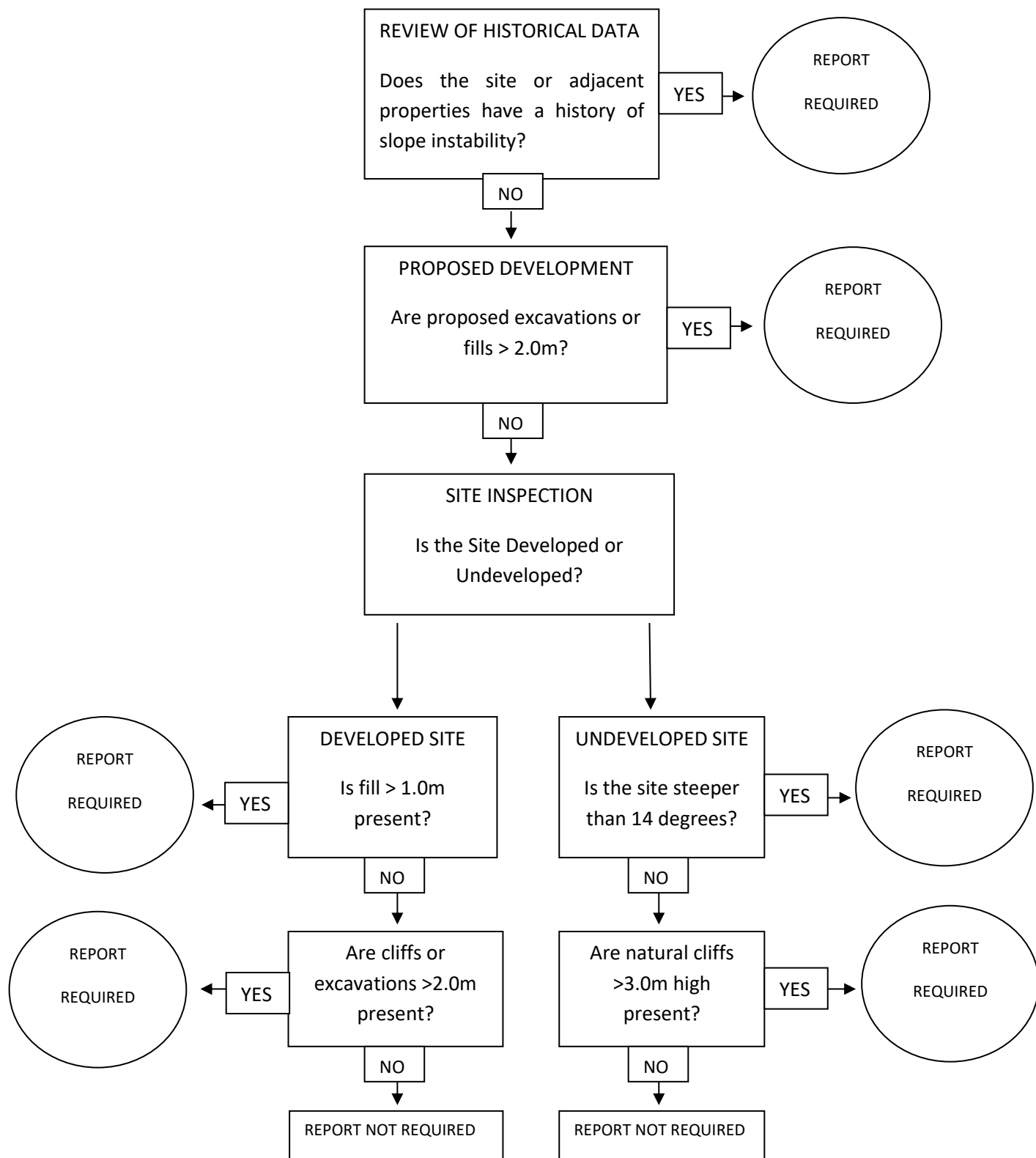
Provided good engineering and building practice are followed, no further Geotechnical assessment is recommended for the proposed development.

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## Preliminary Assessment Flow Chart – Northern Beaches Council (Warringah)



## Information about your Preliminary Assessment

This Preliminary Assessment relies on visual observations of the surface features observed during the site inspection. Where reference is made to subsurface features (e.g. the depth to rock) these are interpretations based on the surface features present and previous experience in the area. No ground testing was conducted as part of this assessment and it is possible subsurface conditions will vary from those interpreted in the assessment.

In some cases, we will recommend no further geotechnical assessment is necessary despite the presence of existing fill or a rock face on the property that exceed the heights that would normally trigger a full geotechnical report, according to the Preliminary Assessment Flow Chart. Where this is the case, if it is an existing fill, it is either supported by a retaining wall that we consider stable, or is battered at a stable angle and situated in a suitable position on the slope. If it is a rock face that exceeds the flow chart limit height, the face has been deemed to be competent rock that is considered stable. These judgements are backed by the inspection of over 5000 properties on Geotechnical related matters.

The proposed excavation heights referred to in section 2.0 of this assessment are estimated by review of the plans we have been given for the job. Although we make every reasonable effort to provide accurate information excavation heights should be checked by the owner or person lodging the DA. If the excavation heights referred to in in section 2.0 of this assessment are incorrect we are to be informed immediately and before this assessment is lodged with the DA.

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