

## **PRELIMINARY GEOTECHNICAL ASSESSMENT:**

### **17 Drumcliff Avenue, Killarney Heights**

<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** Replace the existing cabana on the downhill side of the property.
- 2.2** Apart from those for footings, no excavations are required. No fills are shown on the plans.
- 2.3** Details of the proposed development are shown on 2 drawings prepared by Gelder Group Architects, Project number 2002, drawings numbered DA201 and DA301, dated 30/6/21.

## **3.0 Site Location**

- 3.1** The site was inspected on the 15<sup>th</sup> June, 2021, and previously on the 24<sup>th</sup> January, 2019.
- 3.2** This residential property is on the low side of the road and has a NE aspect. It is located on the moderate to steeply graded middle reaches of a hillslope. Medium Strength Hawkesbury Sandstone bedrock outcrops and steps down 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 little with the development to date. 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**

From the road frontage to the lower boundary, the natural slope falls at an average angle of  $\sim 18^\circ$ . At the road frontage, a driveway runs to a carport attached to the N side of the house. Between the road frontage and the house is a brick-paved patio area surrounded by gardens. Competent Medium Strength Sandstone outcrops through the gardens in places. The two-storey brick house is supported on brick walls and brick piers. The supporting walls display no significant signs of movement and the supporting piers stand vertical. Some of the supporting walls and piers were observed to be supported directly off outcropping sandstone. Sandstone outcrops on the downhill side of the house and steps down the slope to a pool area below. The S end of the outcropping rock was observed to be undercut to a maximum of  $\sim 2.0\text{m}$  (Photo 1). The undercut joint block has a relatively thick cantilever arm in relation to the overhang length and displays no signs of cracking as viewed from above or below. The undercut joint block is considered stable. No signs of movement were observed in the concrete shell of the pool. On the N side of the pool is a stable timber pool house that will be demolished as part of the proposed works. Between the pool and the lower boundary is a garden area. Below the lower boundary is undeveloped bushland. The area surrounding the house, driveway, and pool is mostly paved with some garden areas. No signs of movement associated with slope instability were observed on the grounds. 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.

White Geotechnical Group Pty Ltd.

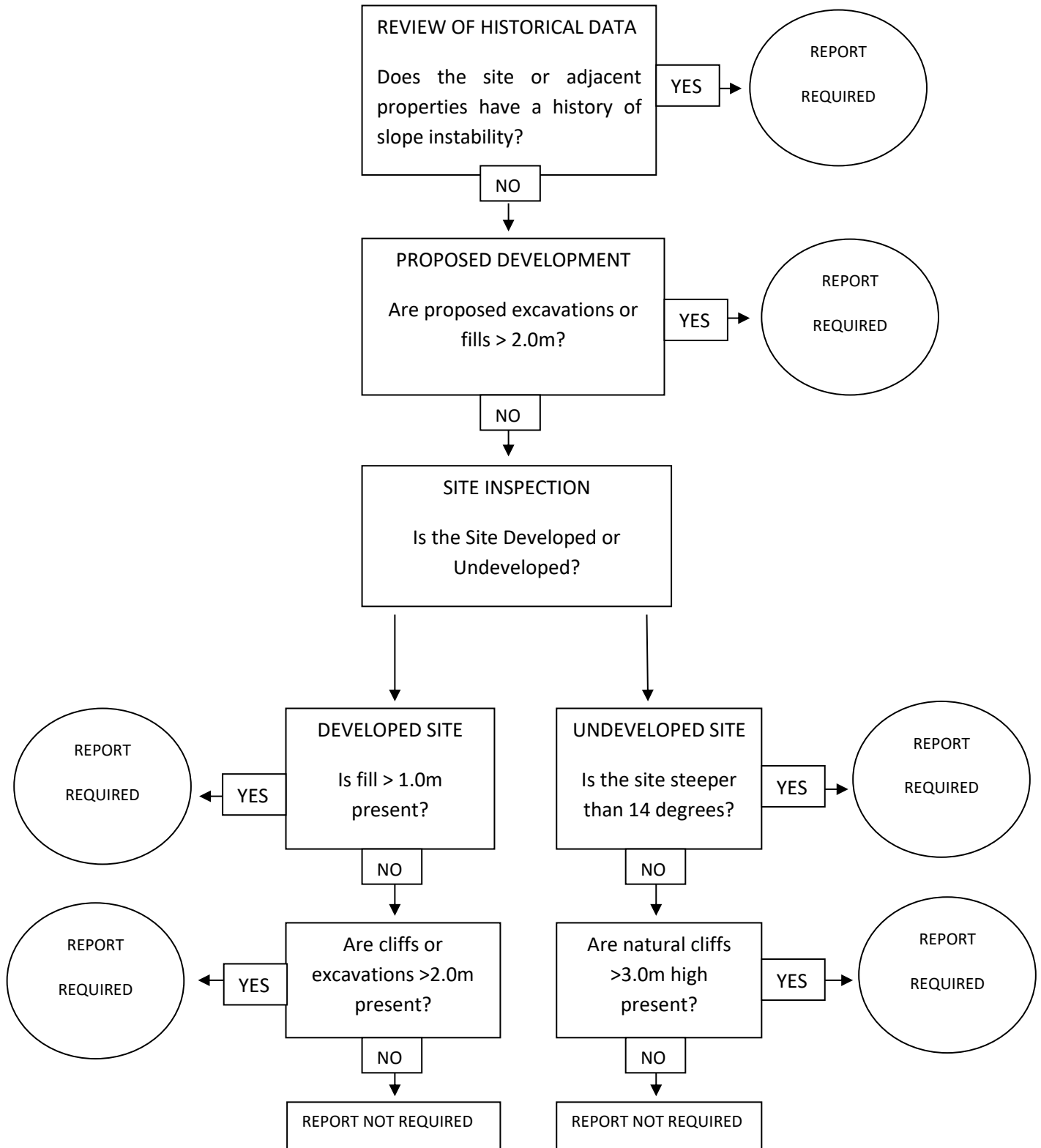


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Photo 1

**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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