

## **PRELIMINARY GEOTECHNICAL ASSESSMENT:**

### **11 Busby Place, Frenchs Forest**

<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** Construct a new first floor addition.
- 2.2** Construct a new deck on the downhill side of the house.
- 2.3** Various other minor internal and external alterations.
- 2.4** Apart from those for footings, no excavations are required. No fills are shown on the plans.
- 2.5** Details of the proposed development are shown on 1 drawing prepared by Add-Style, drawing number 0464 DA 1, Issue B, dated 21/5/21.

## **3.0 Site Location**

- 3.1** The site was inspected on the 31<sup>st</sup> May, 2021.
- 3.2** This residential property is on the corner of Busby Place and Townsend Avenue. It is on the uphill side of Busby Place and is level with Townsend Avenue. The property has an E aspect. It is located on the gentle to moderately graded upper

middle reaches of a hillslope. Medium Strength Hawkesbury Sandstone bedrock outcrops at the road frontage to Busby Place and through the cut face for the uphill side of the house. 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 excavations for the house and pool and with filling for the driveway and landscaping across the downhill side of 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 rises across the property at an average angle of  $\sim 12^\circ$ . At the road frontage to Busby Place, a concrete driveway runs up to a garage under the S side of the house. The fill for the driveway is supported by a stable  $\sim 1.4\text{m}$  high stack rock retaining wall. Between this road frontage and the house is a terraced garden area. Competent Medium Strength Sandstone outcrops through the garden in places. A portion of the outcrop near the downhill side of the house is undercut to  $\sim 1.0\text{m}$  but is not considered a threat to life or property should it collapse. The single-storey brick house is supported on brick walls. The external supporting walls of the house display no significant signs of movement. An excavation has been made in the slope to create a level platform for the garage level of the house. The cut has been taken entirely through Medium Strength Sandstone and lines the upper common boundary. A joint in the rock was noted (Photo 1). The joint appeared to run through the rock at a comparatively shallow angle compared to the cut face. However, the rock has been in place since the property was developed and has remained during the excavation works and life of the property so is considered stable. The cut for the ground floor of the house is supported by a stable brick retaining wall  $\sim 0.7\text{m}$  high. A pool has been cut into the slope between the road frontage to Townsend Avenue and the house. The water level of the pool indicates no ground

movement has occurred in the shell of the pool since its construction. The area surrounding the house is mostly paved or lawn covered. 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.

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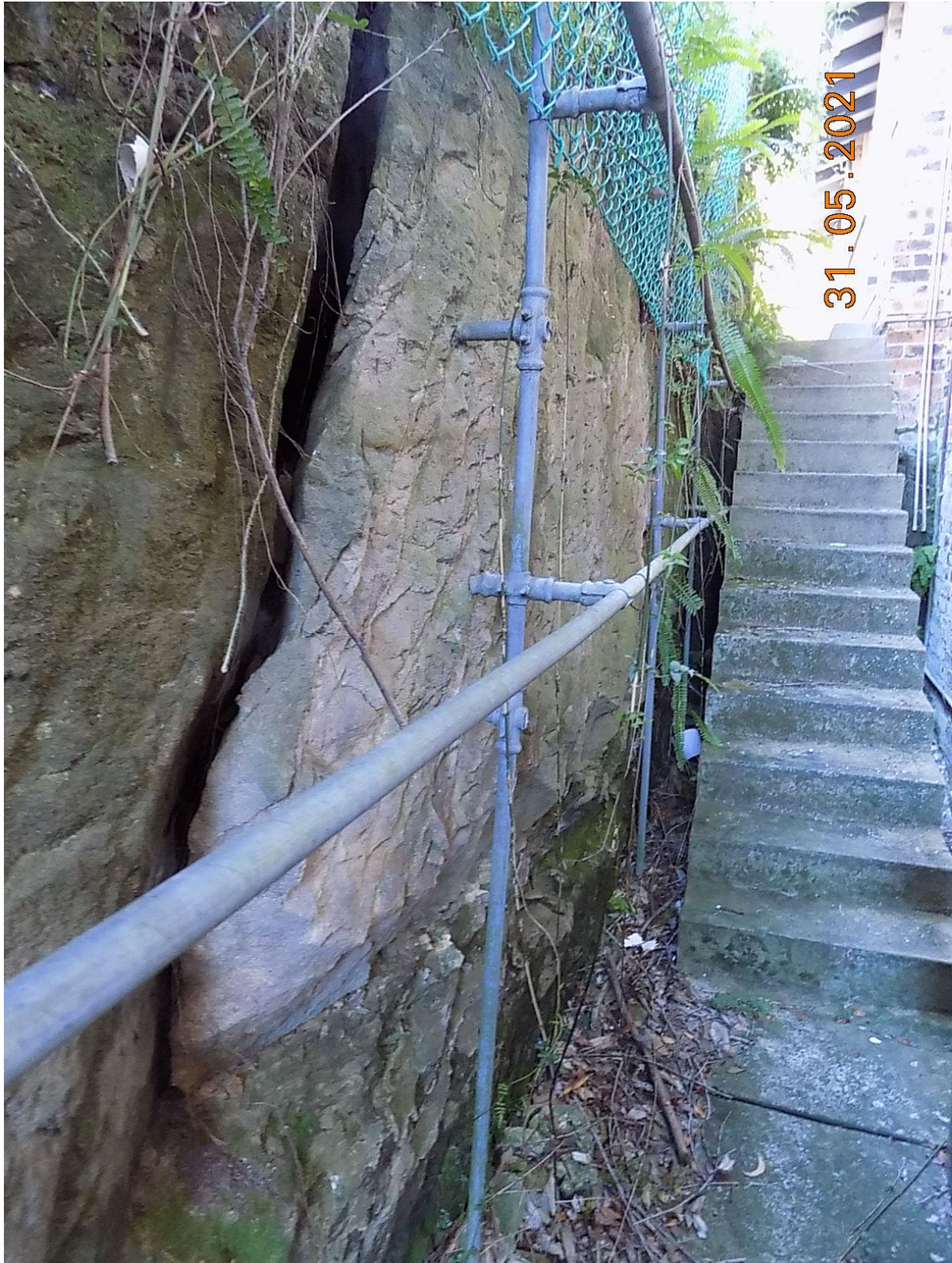
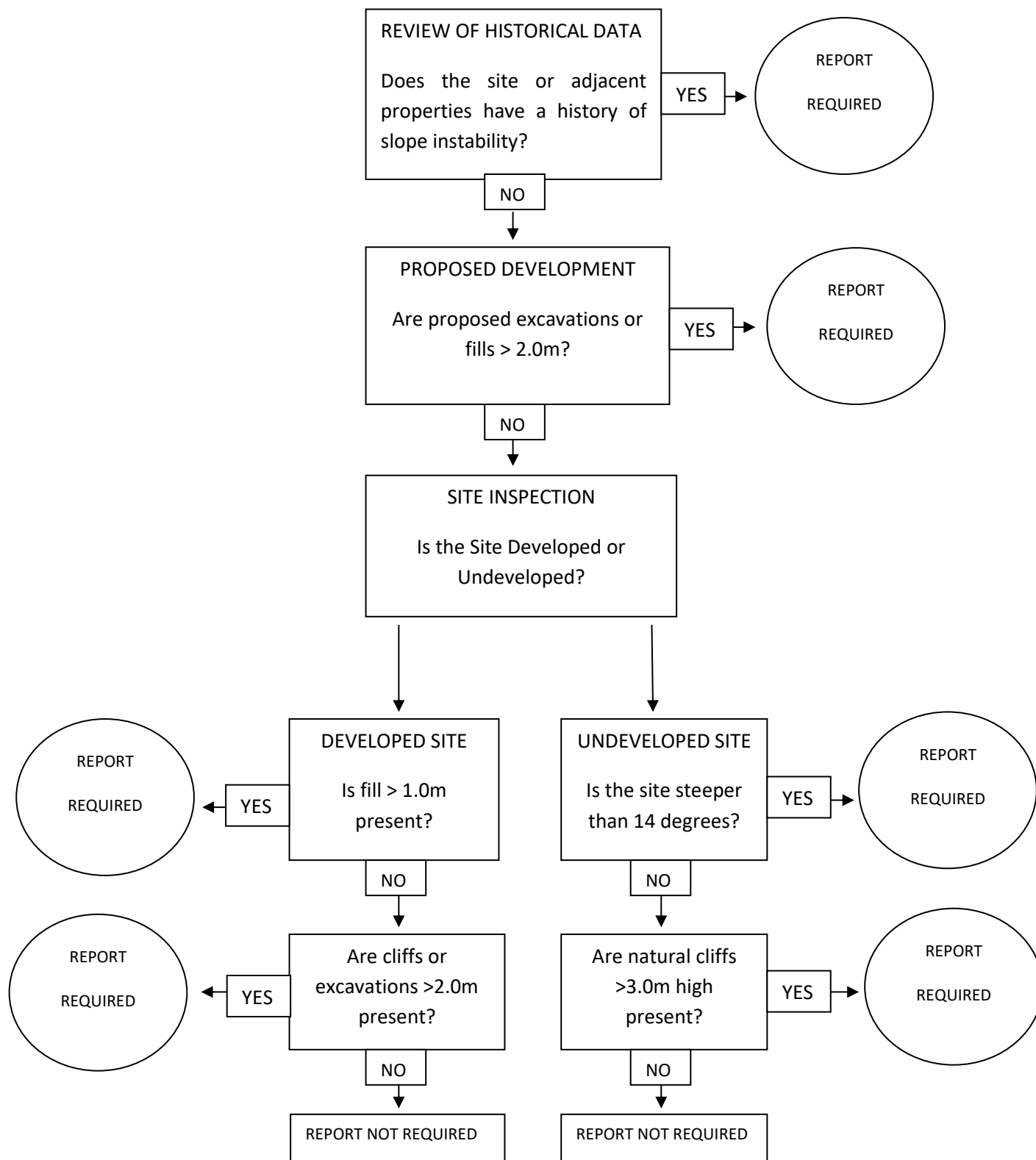


Photo 1

## 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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