

## **PRELIMINARY GEOTECHNICAL ASSESSMENT:**

### **5 Londonderry Drive, Killarney Heights**

<b>1.0</b>	<b>LANDSLIP RISK CLASS</b> (Highlight indicates Landslip Risk Class of property)
<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** Demolish the existing carport and install a new pool in the same location by excavating to a maximum depth of ~1.6m.
- 2.2** Construct a new carport on the downhill side of the house by excavating to a maximum depth of ~1.3m.
- 2.3** Re-landscape the downhill side of the property by filling to a maximum height of ~0.8m.
- 2.4** Details of the proposed development are shown on 1 drawing prepared by Space Landscape Designs, project number 191644, drawing numbered L-01, Revision A, dated 18/6/19.

## **3.0 Site Location**

- 3.1** The site was inspected on the 1<sup>st</sup> August, 2019.
- 3.2** This residential property is on the uphill side of the road and has a N aspect. It is located on the gentle to moderately graded upper middle reaches of a hillslope.

Medium Strength Hawkesbury Sandstone bedrock outcrops on the uphill side of 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 used for landscaping on the uphill side of the property. An excavation to a maximum depth of ~1.6m will be required to install the new pool, an excavation to a maximum depth of ~1.3m will be required to construct the proposed carport, and filling to a maximum depth of ~0.8m will be required to re-landscape the downhill side of the property.

**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 site at an average angle of ~11°. At the road frontage, a concrete driveway runs up the slope to a carport that will be demolished as part of the proposed works. Between the road frontage and the house is a gentle to moderately sloping lawn. The single-storey brick house is supported on brick walls. No significant signs of movement were observed in the supporting walls. A gently sloping lawn extends off the uphill side of the house to the base of a ~2.0m high rock face. The rock face displays no undercutting or other significant geological defects that could affect its stability. The rock face is stepped at its W end. The step has a covering of fill that is supported by a ~0.6m high stable concrete block retaining wall that is supported directly off the outcropping rock. 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.

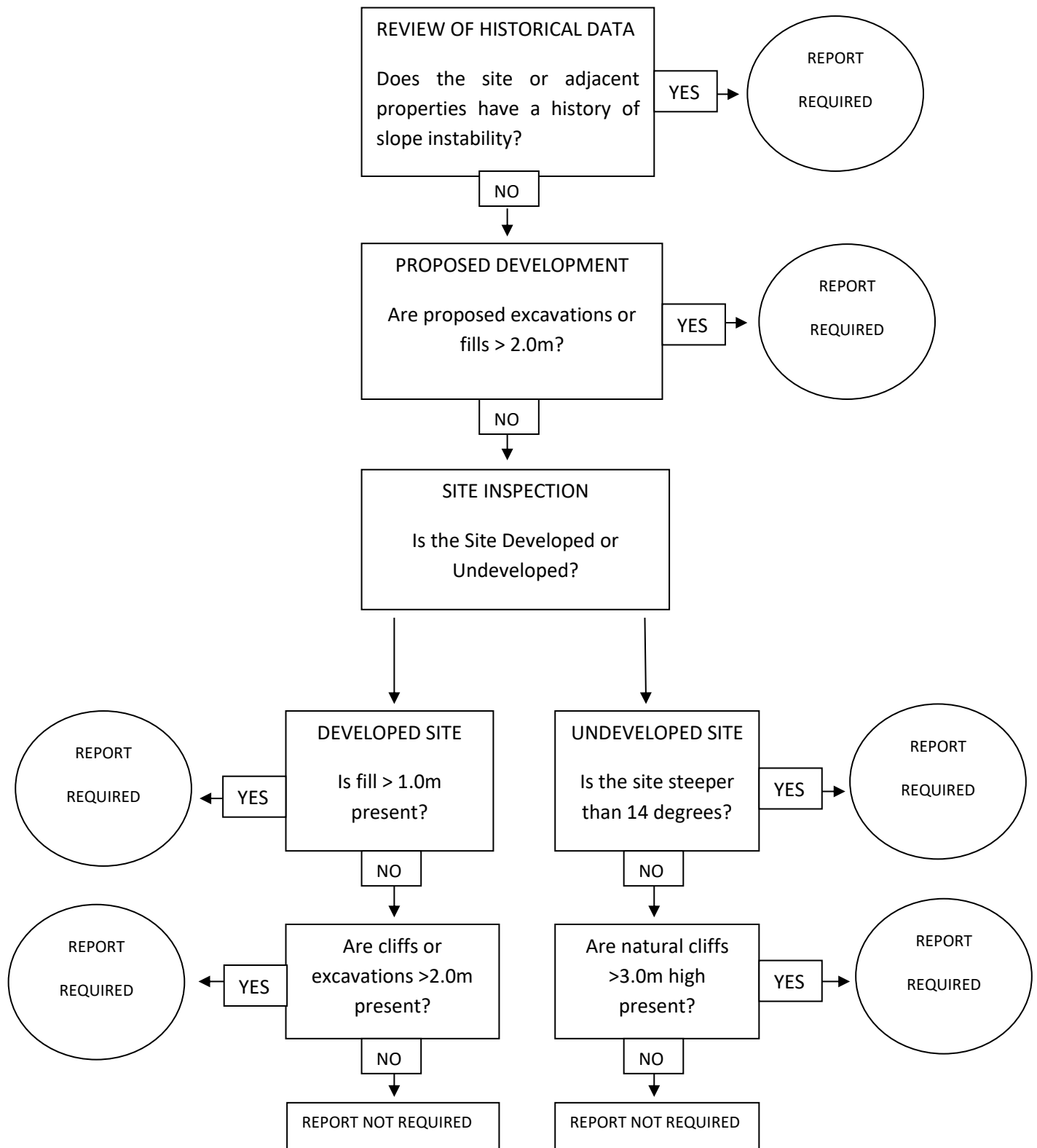
Provided good engineering and building practice are followed, no further Geotechnical assessment is recommended for the proposed development.

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## 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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