

PRELIMINARY GEOTECHNICAL ASSESSMENT:

86 Ballyshannon Road, Killarney Heights

1.0	LANDSLIP RISK CLASS (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** Construct a new awning on the uphill side of the house.
- 2.2** No excavations or fills are shown on the plans.
- 2.3** Details of the proposed development are shown on 1 drawing prepared by Willco Consulting, Job number 17314, drawing numbered 17314-01, sheet 1, Issue A, dated 21/7/17.

3.0 Site Location

- 3.1** The site was inspected on the 7th April, 2020.
- 3.2** This residential property is on the high side of the road and has a SW aspect. It is located on the gentle to moderately graded upper middle reaches of a hillslope. Medium Strength Hawkesbury sandstone bedrock outcrops between the pool and 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 a fill for the driveway, with an excavation for a pool on the downhill side of the property,

and with filling used to level the area around the pool. 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 upper boundary, the natural slope rises at an average angle of $\sim 17^\circ$. At the road frontage, a concrete driveway runs to a garage on the lower ground floor of the house. The fill for the driveway is supported by a stable $\sim 3.5\text{m}$ high stack rock retaining wall. Below this wall, a pool has been cut into the slope. The water level of the pool indicates no ground movement has occurred in the shell of the pool since its construction. Filling has been placed around the pool for a level area. The fill is supported by a $\sim 1.8\text{m}$ high stable mortared stack rock retaining wall that lines the road frontage. Between the pool and the house is a $\sim 1.0\text{m}$ high rock face. The rock is undercut to $\sim 1.0\text{m}$ (Photo 1). The undercut joint block has a relatively thick cantilever arm in relation to its overhang length, is bridged at its SE side, and does not show any jointing or cracking through the supporting cantilever arm as viewed from above or below. As such, we consider it to be currently stable. The two-storey brick house is supported on brick walls. The supporting brick walls of the house display no significant signs of movement. A gently sloping lawn extends off the uphill side of the house to the upper common boundary. 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.

White Geotechnical Group Pty Ltd.

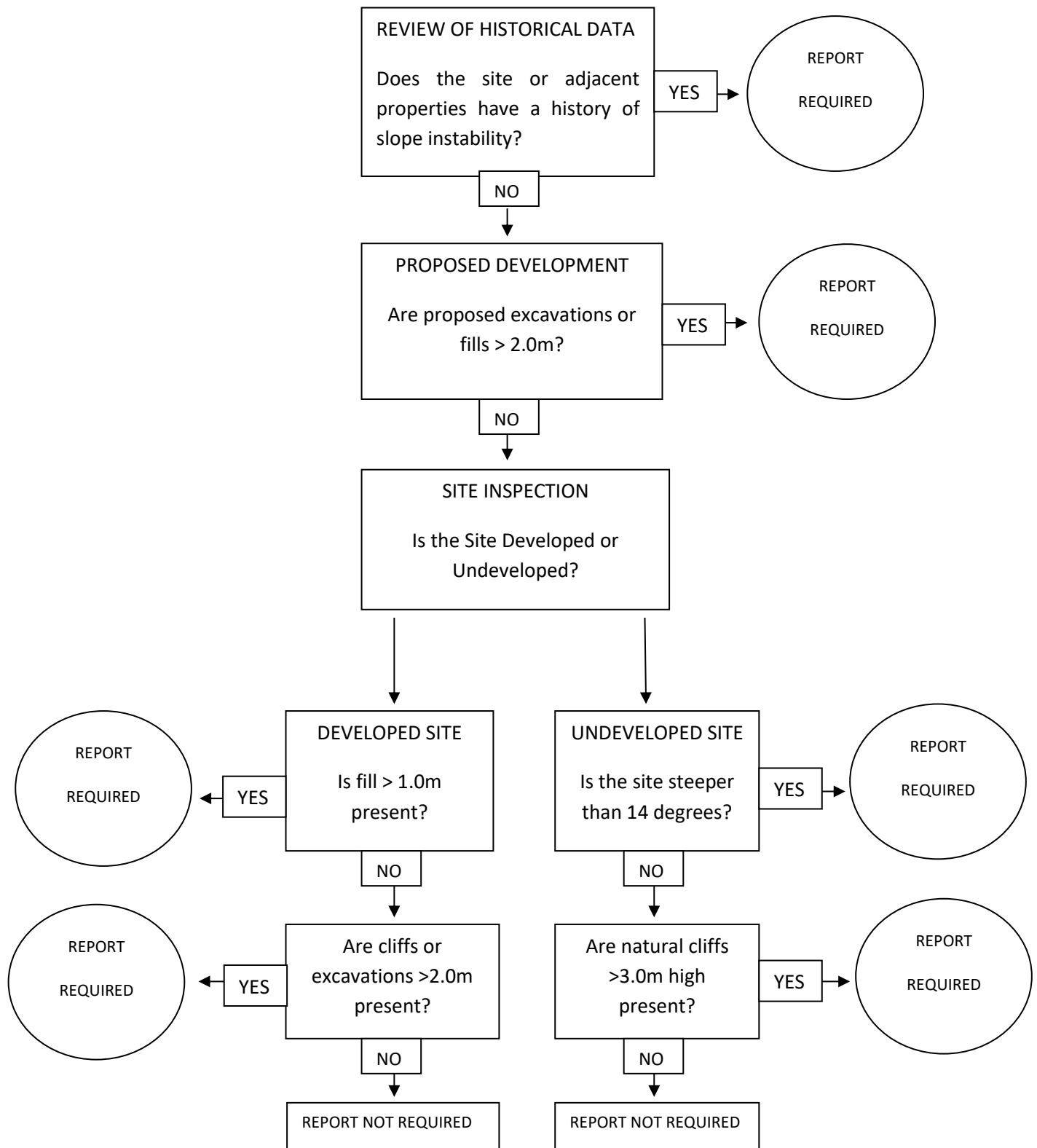


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Photo 1

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.
