

PRELIMINARY GEOTECHNICAL ASSESSMENT:

45 Towradgi Street, Narraweena

1.0	LANDSLIP RISK CLASS (<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 uphill side of the house.
- 2.2** Demolish the existing deck on the downhill side of the house and construct a new two-storey deck.
- 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 16 drawings prepared by Sally Gardner Design & Draft, Job number 21-1104, drawings numbered N1, N2, E1, E2, A1 to A6, and S1 to S6, dated 20/8/22.

3.0 Site Location

- 3.1** The site was inspected on the 1st September, 2022.

3.2 This residential property has dual access. It is on the high side of Towradgi Street and on the low side of a Right of Carriageway (ROW) that is accessed from Towradgi Street. The property has a N aspect. It is located on the moderate to steeply graded lower middle reaches of a hillslope. Medium Strength Hawkesbury Sandstone bedrock outcrops and steps up 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 carport and for landscaping across the uphill 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 slope rises across the property at an average angle of $\sim 18^\circ$. A Medium Strength Sandstone rock face reaching a maximum height of $\sim 2.5\text{m}$ rises at the lower road frontage to the property. The rock face has a thick covering of vegetation but, from what could be seen, appears stable. Between the rock face and the house is a gently sloping lawn. The part two-storey brick house is supported on brick walls and brick piers. The supporting brick walls of the house display no significant signs of movement and the supporting brick piers stand vertical. Medium Strength Sandstone outcrops upslope of the house. The outcrop is undercut to a maximum of $\sim 1.0\text{m}$ (Photo 1). The undercut joint block has a relatively thick cantilever arm in relation to its overhang length, is bridged at both ends, and does not display 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 slope between the uphill side of the house and the upper common boundary is terraced with a series of stable timber crib retaining walls. A carport has been constructed in the SE corner of the property. The downhill supporting wall of the carport displays vertical cracking. However, we do not attribute this cracking to ground

movement as this wall was observed to be supported directly onto the outcropping sandstone bedrock. 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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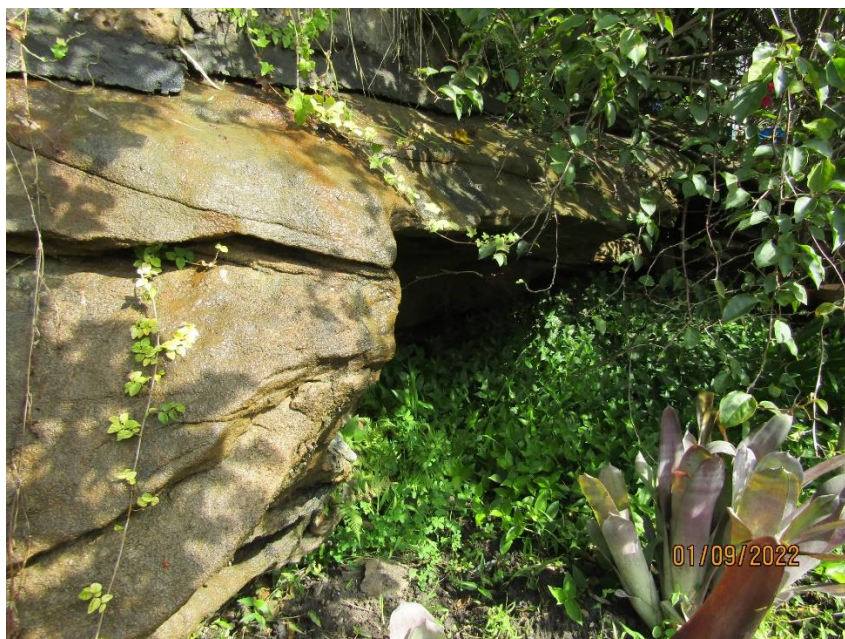
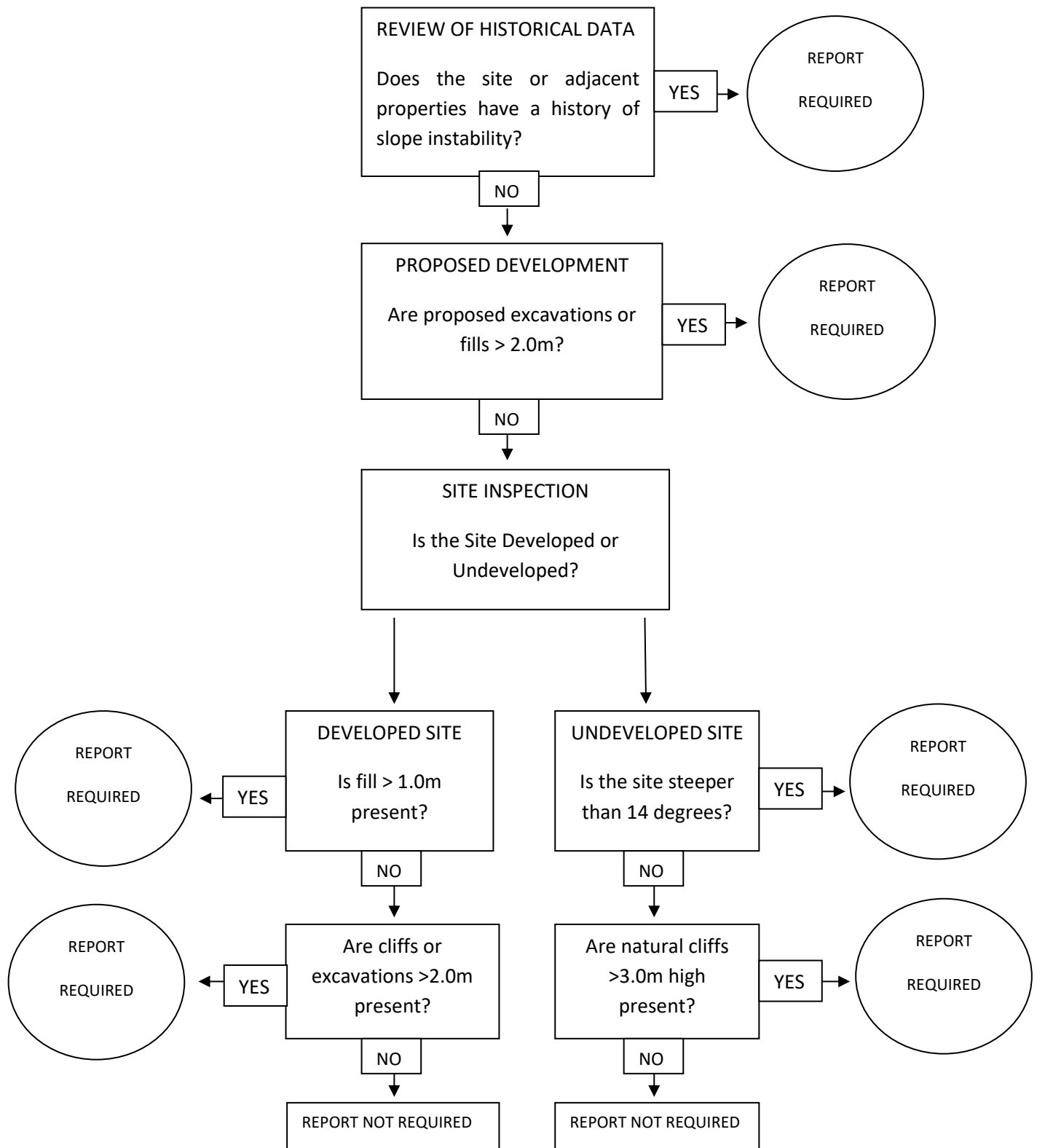


Photo 1

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.
