

PRELIMINARY GEOTECHNICAL ASSESSMENT:

12 Horning Parade, Manly Vale

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** Demolish the existing garage and construct a new garage in the same location.
- 2.2** Extend the existing deck on the E side of the house.
- 2.3** Construct a new first floor addition.
- 2.4** Various other minor internal and external alterations.
- 2.5** Apart from those for footing excavations, no other excavations are shown on the plans. No fills are shown on the plans.
- 2.6** Details of the proposed development are shown on 25 drawings prepared by Mileham Design & Build, drawings numbered A.00.1, A.04.3, A.06.1, A.06.2, A.07.1 to A.07.3, D.03.1 to D.03.3, and W.01.1 are Revision A, drawings numbered A.05.1, D.02.1, and D.02.4 are Revision C, drawings numbered A.02.4, A.03.1 to A.03.4, A.04.1, and A.04.2 are Revision D, and drawings numbered A.01.1 and A.02.1 to A.02.3 are Revision E, all drawings dated 28/05/2018.

3.0 Site Location

3.1 The site was inspected on the 28th June, 2021.

3.2 This residential property is on the high side of the road and has a predominantly N aspect. The block runs longways to the W so the slope is a cross-fall. It is located on the gentle to moderately graded upper 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 an excavation for the garage. 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 site at an average angle of ~19°. At the road frontage, a concrete driveway runs to a timber framed and clad garage that will be demolished as part of the proposed works. The ~3.0m high cut for the garage has been taken entirely through competent Medium Strength Sandstone and displays no significant geological defects. A ~3.0m high rock face rises between the garage and the house. A portion of the outcrop has been undercut to ~1.2m (Photo 1). The relatively thick cantilever arm of the undercut rock does not show any jointing or cracking as viewed from above and below. As such, the rock is currently considered stable. See **Section 5** for recommendations regarding the proposed deck extension in this location. The single-storey brick and timber framed and clad house is supported on brick walls and steel and timber posts. The supporting brick walls of the house display no significant signs of movement and the supporting posts stand vertical. Some of the walls and piers were observed to be supported directly onto outcropping sandstone. An

above-ground pool and surrounding deck have been constructed on the W side of the property and extend to the W common boundary. The area surrounding the house is mostly lawn covered with some paved 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.

The footprint of the proposed deck extension extends over the undercut rock (Photo 1). We recommend no footings for the deck extension be supported on the undercut portion of the rock. Alternatively, the undercut can be supported by not less than 0.5m x 0.5m piers, one of which is under the point load from any deck footing. The piers are to be designed by the structural engineer in consultation with the geotechnical consultant.

Where footings are over an exposed sloping rock surface, they are to be supported off level pads cut into the rock.

6.0 Inspection

It is recommended the following inspection be carried out and if geotechnical certification is desired/required the inspection is a requirement.

- All footings are to be inspected and approved by the geotechnical consultant while the excavation equipment is still onsite and before steel reinforcing is placed or concrete is poured.

White Geotechnical Group Pty Ltd.

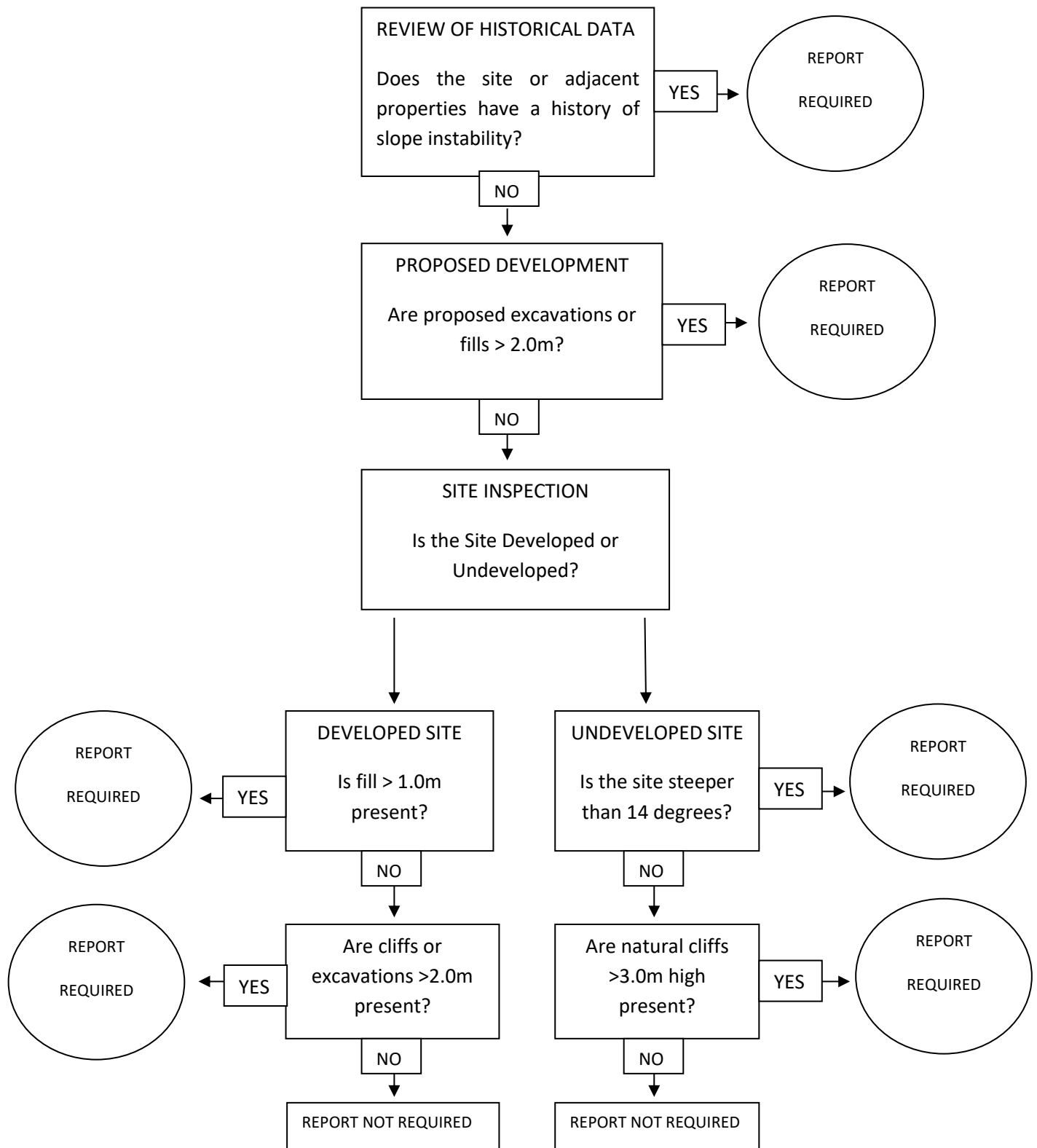


Ben White M.Sc. Geol.,
AusIMM., CP GEOL.
No. 222757
Engineering Geologist.



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.
