

PRELIMINARY GEOTECHNICAL ASSESSMENT:
160 Parr Parade, Beacon Hill

1.0	LANDSLIP RISK CLASS (<i>Highlight indicates Landslip Risk Class of property</i>)
<input checked="" 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 and replace the existing driveway.
- 2.2 Install a new pool by excavating to a maximum depth of ~1.6m.
- 2.3 Replace the existing retaining wall that runs along the NE portion of the downhill property boundary.
- 2.4 Minor landscaping works on the uphill and downhill sides of the house.
- 2.5 Details of the proposed development are shown on 3 drawings prepared by Formed Gardens, job number FG 20 862, drawings numbered 001 to 003, Revision B, dated 16/3/21.

3.0 Site Location

- 3.1 The site was inspected on the 9th April, 2021.
- 3.2 This residential property is on the low side of the road and has a NW aspect. It is located on the moderately graded middle reaches of a hillslope. Medium Strength Hawkesbury Sandstone bedrock outcrops on the downhill 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 filling for lawn/garden areas on the downhill side of the house. The proposed development will require an excavation to a maximum depth of ~1.6m for the proposed pool.

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 falls from the uphill boundary of the property to the downhill side of the house at an average angle of ~7° before increasing in grade to an angle of ~16° on the downhill side of the house. At the road frontage, a concrete driveway runs to a garage attached to the house. The driveway displays cracking but will be replaced as part of the proposed works. A brick boundary fence is located next to the driveway. The fence displays a stepped crack up to ~8mm thick through the mortar (Photo 1). See '**Section 5.0 Recommendations**'. Between the road frontage and the house is a near level lawn area. The part two storey brick and timber clad house is supported by brick walls and brick piers. The supporting walls and piers stand vertical and show no significant signs of movement. A timber deck extends off the downhill side of the house. Fill provides level lawn/garden areas of the downhill side of the house. The upper fill is supported by timber and brick retaining walls up to ~1.2m high. The timber retaining walls are in good condition. The NE portion of the brick retaining wall is constructed on outcropping Medium Strength Hawkesbury Sandstone bedrock. The SW portion of the brick retaining displays a ~8mm thick horizontal crack, but the wall will be demolished as part of the proposed works. The lower portion of the fill is supported by timber and stone retaining walls up to ~1.5m high along the downhill property boundary. The ~1.5m high timber retaining wall will be replaced as part of the proposed works. 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 cracked brick boundary fence (Photo 1) is to be monitored by the owners on an annual basis or after heavy rainfall, whichever occurs first. A photographic record of these inspections is to be kept. Should further movement occur the wall is to be remediated so it meets current engineering standards. We can carry out these inspections upon request.

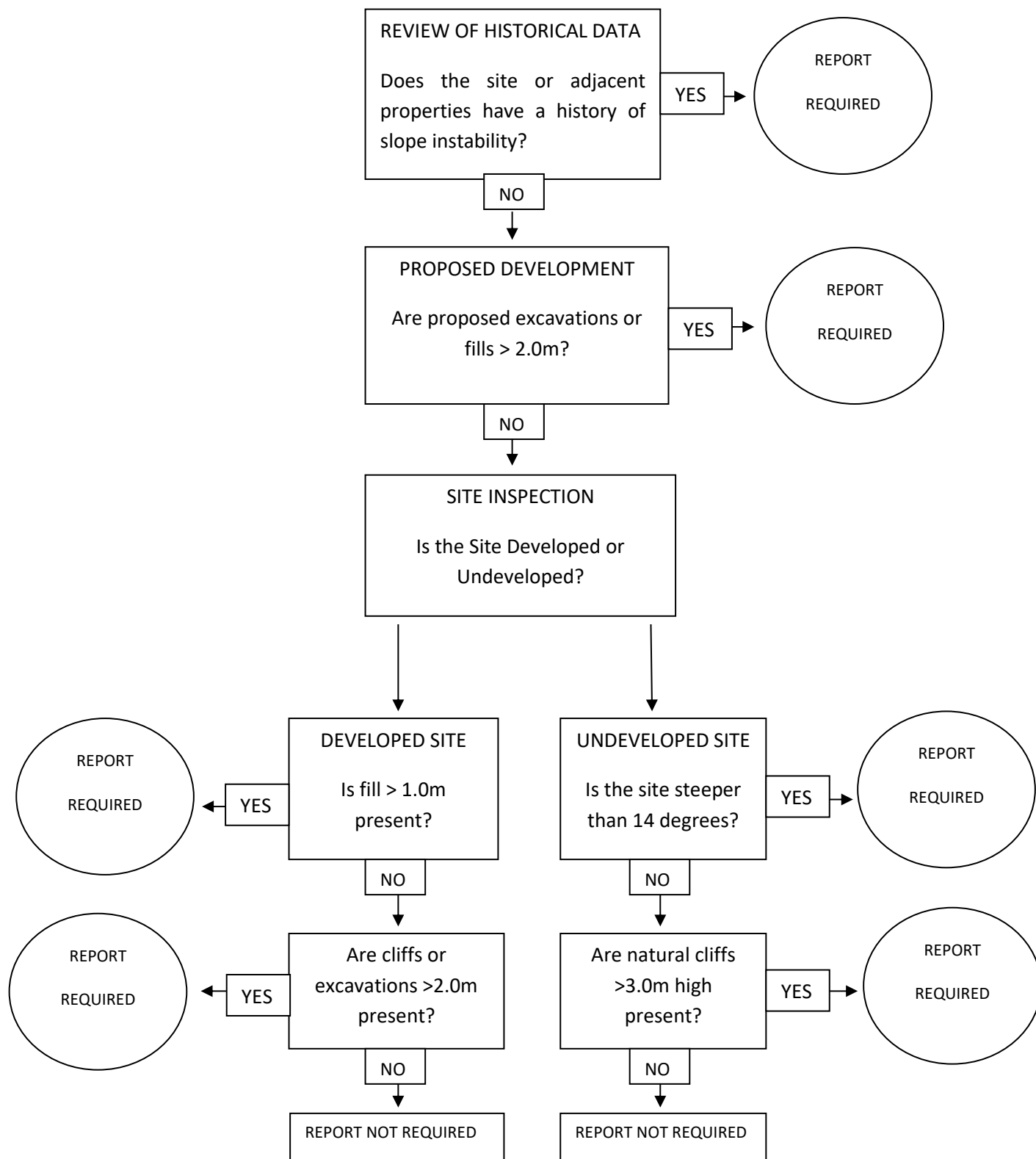
Provided good engineering and building practice are followed, no further Geotechnical assessment is recommended for the proposed development.

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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.
