

## **PRELIMINARY GEOTECHNICAL ASSESSMENT:**

### **29 Fisher Street, Balgowlah Heights**

#### **1.0 Proposed Development**

- 1.1** Construct a new pool and deck on the downhill side of the house.
- 1.2** Apart from those for footings, no significant excavations are required. No fills are shown on the plans.
- 1.3** Details of the proposed development are shown on 11 drawings by Premier Pools, drawing number 1184, sheets numbered L-01 to 11, Issue D, dated 5/5/20.

#### **2.0 Site Location**

- 2.1** The site was inspected on the 15<sup>th</sup> May, 2020.
- 2.2** This residential property has dual access. Fisher street runs both above and below the property. The property has a N aspect. It is located on the gentle to steeply graded upper middle reaches of a hillslope. Medium Strength Hawkesbury Sandstone bedrock outcrops and steps down 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 lower ground floor of the house and with filling used for landscaping on the downhill side of the property. The proposed development will not alter the surface further for the proposed works.
- 2.3** 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.

### 3.0 Site Description

The natural slope falls across the upper half of the site at an average angle of  $\sim 8^\circ$  before increasing to angles of  $\sim 20^\circ$  across the lower half of the property. At the upper road frontage, a concrete driveway runs to a garage and carport on the uphill side of the house. Between the road frontage and the house are gently sloping lawn areas. The part two-storey brick house is supported on brick walls. The supporting walls display no significant signs of movement. Some of the supporting walls within the foundation space of the house were observed to be supported directly onto outcropping competent Medium Strength Sandstone. An excavation has been made through this outcrop for the lower ground floor of the house. The  $\sim 1.0\text{m}$  high cut face displays no significant geological defects and is considered stable. A gently sloping lawn-covered fill extends off the downhill side of the house. The fill is supported by a stable battered slope lined with sandstone boulders  $\sim 2.0\text{m}$  high. We note to maintain ongoing stability into the future these walls require occasional maintenance, usually consisting of repointing some of the sandstone components. Medium Strength Sandstone outcrops at the base of the fill batter and on the slope below. This slope falls to the lower road frontage and becomes very densely vegetated. The area surrounding the house and driveway 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.

### 4.0 Recommendations

The proposed development and site conditions were considered and applied to the Council Flow Chart.

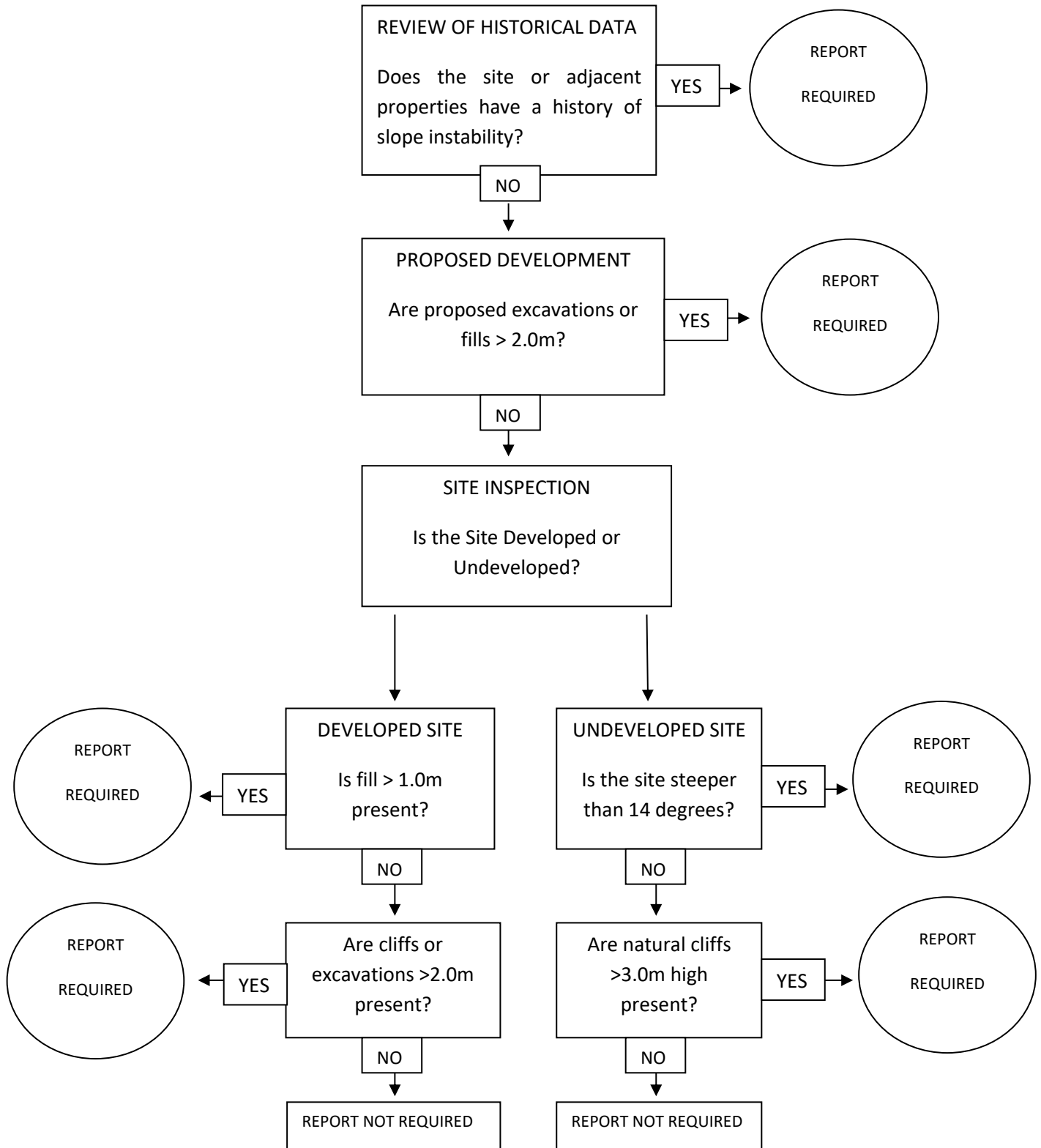
Provided good engineering and building practice are followed, no further Geotechnical assessment is recommended for the proposed development.

White Geotechnical Group Pty Ltd.



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

## Preliminary Assessment Flow Chart – Northern Beaches Council (Manly)



## 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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