PRELIMINARY GEOTECHNICAL ASSESSMENT:

9 Earl Street, Beacon Hill

1.0	***LANDSLIP RISK CLASS*** *(Highlight indicates Landslip Risk Class of property)*
☒	*A - Geotechnical Report not normally required*
☒	*B - Geotechnical Engineer (Under Council Guidelines) to decide if Geotechnical Report is required*
☐	*C - Geotechnical Report is required*
☐	*D - Geotechnical Engineer (Under Council Guidelines) to decide if Geotechnical Report is required*
☐	*E - Geotechnical Report required*

2.0 Proposed Development

2.1 Install a pool on the downhill side of the property by excavating to a maximum depth of ~1.9m.

2.2 Construct a new upper floor addition.

2.3 Various other minor internal and external additions and alterations.

2.4 No fills are shown on the plans.

2.5 Details of the proposed development are shown on 33 drawings prepared by The Site Foreman architects, project number 3137, drawings numbered, A00 to 01, A03, A04, A04.1 A101 to 102, A200 to 201, A210, A300 to 302, A310, A401 to 404, A450 to 452, A475, A501 to 507, A550 and A600 to 602. All revision 5. All dated 15.05.2024.

3.0 Site Location

3.1 The site was inspected on the 19th April, 2024.

3.2 This residential property is on the low side of the road and has a S aspect. It is located on the gently graded upper reaches of a hillslope. Medium Strength Sandstone outcrops at the road frontage and across the property in several locations. 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 by excavations for the upper and lower floors of the house and a fill for a lawn area on the downhill side. The proposed development will require a ~1.9m excavation 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 across the property at an average angle of ~8°. At the road frontage, a paved driveway runs to a garage on the uphill side of the house. A cut for the house and fill for the road reserve above is supported by a stable low brick retaining wall that lines the upper boundary. This wall was observed to be partially supported on competent Medium Strength Sandstone. The part two-story brick house is supported on brick walls. No significant signs of movement were observed in the supporting walls. A ~2.0m cut for the lower level of the house has been taken directly through Medium Strength Sandstone and some of the walls were observed to be supported on this material. The observable portions of the rock face were seen to be free from significant geological defects that could affect its stability. A fill for a level lawn on the downhill side of the property is supported by a stable concrete block retaining wall reaching ~1.5m high. The land surface surrounding the house is paved and lawn covered. No significant signs of movement associated with slope instability were observed on the grounds. No geotechnical hazards that could impact on the subject property were observed on the surrounding neighbouring properties as viewed from the subject property and the street.

5.0 Recommendations

The proposed development and site conditions were considered and applied to the current council requirements. See the required inspection below that is to be carried out during construction and is a requirement for the final geotechnical certification. Apart from the inspection, it is not expected additional geotechnical input will be required provided good design and building practices are followed.

6.0 Inspection

The client and builder are to familiarise themselves with the following required inspection as well as council geotechnical policy. We cannot provide geotechnical certification for the owners or the regulating authorities if the following inspection has not been carried out during the construction process.

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

Reviewed By:

Ben White M.Sc. Geol.,
AIG., RPGeo Geotechnical & Engineering.
No. 10306
Engineering Geologist.

REGISTERED PROFESSIONAL GEOSCIENTIST
AUSTRALIAN INSTITUTE OF GEOSCIENTISTS
BENJAMIN WHITE
RPGeo No:
10306

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.