PRELIMINARY GEOTECHNICAL ASSESSMENT:

2 MacMillan Street, Seaforth

1.0 Proposed Development

1.1 Construct a first-floor addition.

1.2 Construct a new carport at the SW corner of the house.

1.3 Various other minor internal and external alterations and additions.

1.4 Apart from those for footings, no excavations are required. No fills are shown on the plans.

1.5 Details of the proposed development are shown on 1 drawing prepared by Add-Style Home Additions, drawing numbered 3632 DA 1. Issue D. Dated 05/07/24.

2.0 Site Location

2.1 The site was inspected on the 10th July, 2024.

2.2 This residential property is on the corner of MacMillan Street and Frenchs Forest Road and has a NE aspect. It is located on the gently graded middle reaches of a hillslope. Medium Strength Sandstone outcrops 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 with an excavation for the lower level of the house and garage, and with fills for lawn areas. The proposed development will not alter the surface further as part of 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 property at an average angle of ~6°. At the MacMillan Street frontage, a concrete driveway runs to a parking area on the uphill side of the house. At the Frenchs Forest Road frontage, a concrete driveway runs to a garage under the house. The cut for the driveway is supported by two rendered brick retaining walls reaching up to ~1.5m high. Both walls exhibited stepped cracking up to ~5mm which has since been painted over. Additionally, the uphill wall was measured to be tilting up to ~5° downslope (Photo 1). This movement is most likely caused by the root action of the trees immediately above. See **Section 5** 'Recommendations' for advice regarding these walls. The single-story brick house with garage below is supported on rendered brick walls and brick piers. Thin stepped cracking was observed some of the supporting walls of the house (Photo 2). This cracking is typical in houses of this age and construction and we attribute it to minor settlement. The supporting piers stand vertical. A stable deck extends off the downhill side of the house. The land surface surrounding the house is mostly paved and lawn covered. No significant signs of movement associated with slope instability were observed on the grounds. No cliffs or large rock faces were observed on the property or in the near vicinity. 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.

4.0 Recommendations

The rendered brick retaining walls which support the cut for the driveway at the Frenchs Forest Road frontage were measured to be cracked up to ~5mm and the uphill wall was measured to be tilting up to ~5° downslope (Photo 1). These walls are to be monitored by the owners on a six-monthly basis or after heavy and prolonged rainfall events, 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.

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.

5.0 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.

White Geotechnical Group Pty Ltd.

Nathan Gardner B.Sc. (Geol. & Geophys. & Env. Stud.)
AIG., RPGeo Geotechnical & Engineering.
No. 10307
Engineering Geologist & Environmental Scientist.

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

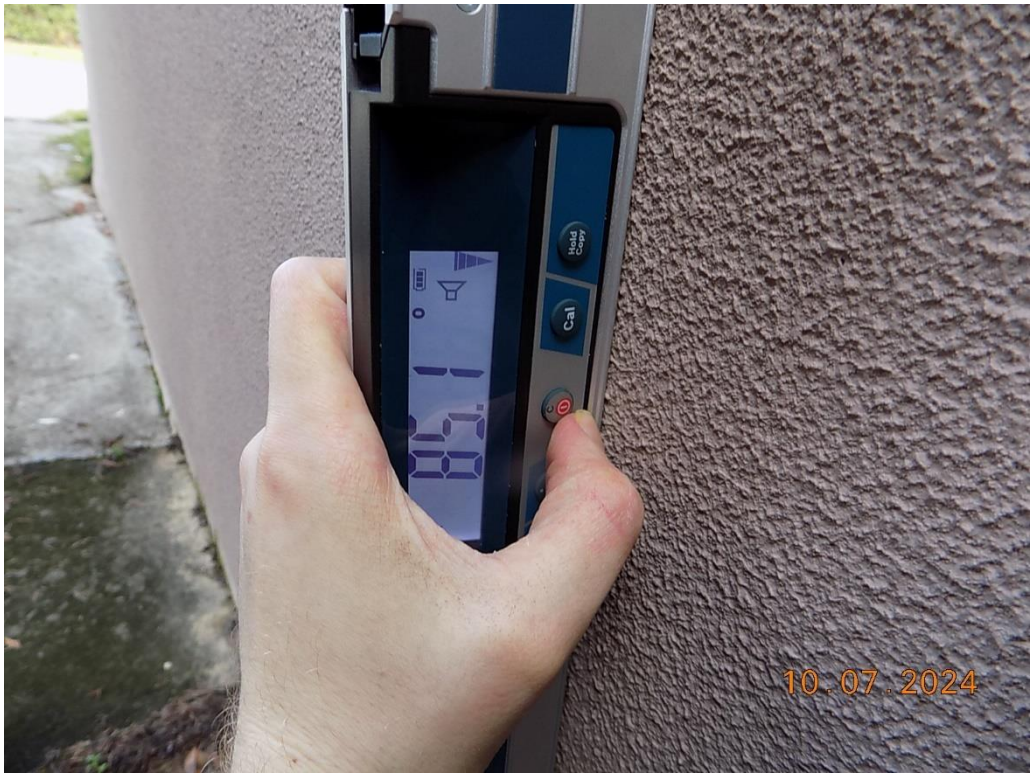

Photo 1

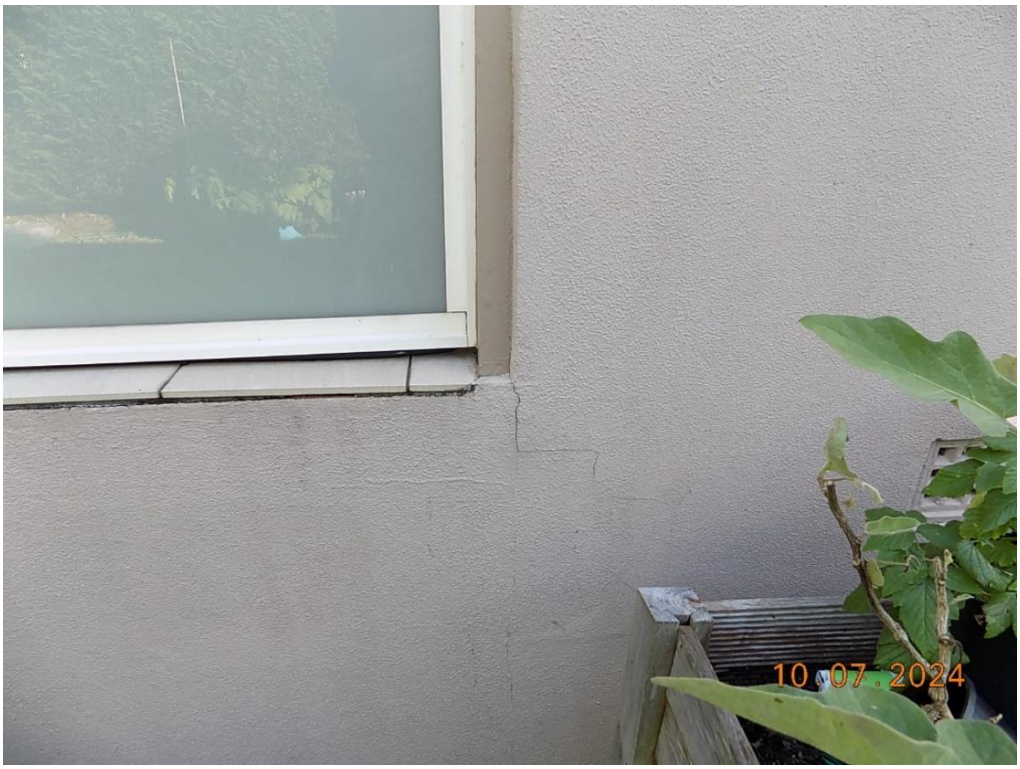

Photo 2

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.
