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March 12, 2020
Project No. 30346/3582D-G
Report No. 20/0754
MG/ms

PRELIMINARY LANDSLIP ASSESSMENT

Client: Networked Urban Solutions Pty Limited
Address: 13 Wyadra Avenue, Freshwater
Proposed Development: Alterations and Additions to an existing residential dwelling

1. Geology and Site Description

The site is roughly rectangular in shape with an area of approximately 478m^2. A site inspection was undertaken by one of our Principal Engineering Geologists on March 11th, 2020. At the time of the inspection the site was occupied by a two-level brick rendered residential dwelling with tile roof. The dwelling includes a concrete driveway at the front which leads to the lower ground floor basement area together with an at-grade light weight car port structure at the rear.

The ground surface falls approximately 3 metres to the south west. The existing lower ground floor area of the dwelling has been cut into the site with an estimated maximum cut depth of 1.7 metres. The adjoining cut slopes are retained by the lower ground floor brick walls. Elsewhere on the site there are several low height brick rendered retaining walls that have been constructed for landscaping purposes. There is likely to be localised fill behind the walls, which have heights of less than 1 metre. The existing dwelling is founded on sandstone bedrock with bedrock exposed at numerous locations in the lower ground floor area.

Site vegetation comprised grass, shrubs and a single large palm tree.

To the south of the site is Wyadra Avenue and to the east is Cooksey Avenue. To the north and west are residential dwellings.

The Sydney geological series sheet, at a scale of 1:100,000 shows that the site is underlain by Triassic Age Hawkesbury Sandstone bedrock. Bedrock within this formation comprises fine to medium grained quartz sandstone.

Based on the site inspection we expect the subsurface conditions to comprise minor topsoil and fill overlying residual clayey sand and sandy clay soils, overlying shallow sandstone bedrock. Sandstone bedrock was observed outcropping on the site and in a park area approximately 50 metres to the east of the site. Any fill materials present on the site are expected to occur behind retaining walls and in landscaped areas.

No groundwater seepage was during the site inspection.

2. Preliminary Landslip Assessment

The development will comprise internal alterations to the ground floor level together with construction of a 1st floor addition. No alterations are proposed for the lower ground floor, and construction of the alterations for the ground floor and 1st floor addition will not require excavating below the existing ground surface. The Council landslip hazard map shows the property is within a Class B area.

The preliminary landslip carried out is based on Council's check list. The assessment follows:

- Does the site or adjacent properties have a history of slope instability – No.
- Are excavations or fills greater than 2 metres proposed – No.
- Is the site developed – Yes.
- Is greater than 1m of fill present: No
- Are cuts / excavations greater than 2m high present – No.

Based on our observations and Council's check list a detailed landslip assessment will not be required.

We trust this meets with your requirements. Should you have any questions, please contact us.

Yours faithfully,

Matt Green
Principal Engineering Geologist
STS Geotechnics Pty Limited