

Date: 2nd April 2019

No. Pages: 3

Project No.: 2018-176

Mr. & Mrs. G. Spencer
25 Ballyshannon Road,
Killarney Heights NSW 2087

Preliminary Landslip Risk Assessment for 25 Ballyshannon Road, Killarney Heights.

This letter report details the results of a preliminary landslip assessment required by Northern Beaches Council to accompany all new Development or Building Certificate Applications. It is a review of the design plans followed by a walk over visual assessment of the stability of the existing property, no insitu testing was undertaken.

The assessment follows the guidelines as set out in Section E10-Landslip Risk of Warringah Councils 2011 LEP Planning Rules.

1. Landslip Risk Class:

The site is located within Landslip Risk Class "B" which is classified as Flanking Slopes of between 5° and 25°.

2. Site Location:

The site, 25 Ballyshannon Road is located on the low south side of the road, not far from the intersection with Finian Avenue at Killarney Heights. It is a rectangular shaped block with east side boundary of 38.10m and northern street front boundary of 18.29m onto Ballyshannon Road.

3. Proposed Development:

It is understood that the proposed works involve alterations and additions to the existing house that include a new extended upper level on the east side of the house with elevated two car carport at the front and some internal alterations to the existing house structures. Some excavation will be required for the addition new footings only with no bulk excavation expected.

4. Existing Site Description:

The site is located on a south-east striking ridge line that starts at Forestville and falls towards Killarney Heights and Middle Harbour. It is located on the south-west side of the ridge at mid slope level with average slope angle of about -12° towards 156° magnetic north.

The road pavement in front of the site is bitumen with concrete kerb, it is gentle sloping to the east (-5°/075° mN) and in fairly good condition. The road reserve contains a gentle north-east sloping (-5°) grass verge. The front boundary of the site is defined by a 0.1m to 0.2m high flagging stone garden wall. There is a moderately sloping (-15°) concrete driveway leading from the front boundary to a two car basement garage below the front north-east part of the house.

The front yard is formed as a gentle sloping (-1° to -2°) lawn area supported by a 0.5m high flagging stone retaining wall. In the front north-west corner there is a tiered steep (-21°) landscaped garden area supported by partly deforming 0.7m high flagging stone retaining wall. Access to the front door of the house is off the west side of the driveway up a series of steps to an elevated pebblecrete verandah.

The house is located on about the middle of the site, it is approximately "L" shaped in plan view, with basement level to the east and rear. It is a 1960's style single storey cream brick residence with tiled roof. Due to the fall of the land the floor level of the house in the front north-west corner is at about 1.2m above ground level while in the back south-east corner it is 3.5m above ground level. There is an elevated concrete verandah/patio area on the back south-east corner of the house at first floor level.

The house appears to be founded with brick footings and piers mostly on rock but this will need to be verified by the builder before the additions are started. There were no visible signs of settlement cracks in the external basement walls of the house.

Access to the backyard is available down both sides of the house (-10°), the main access is via a concrete walkway adjacent to the east side of the house. There is a slightly tilted concrete pathway across the back south side of the house at ground level.

The backyard comprises mostly a gentle sloping lawn (-9°/156° mN) with steep (-26°) terraced garden directly to the rear of the house, while a wide garden bed abuts the west side boundary. There is a 10m wide bushfire zone between the rear of the property and the natural bush down slope that is open with grass vegetation and bedrock and boulder outcrops.

There were no signs of erosion or major instability on the site. The exterior of the house and footings are in fairly good condition, the roof has gutters and downpipes that discharge to an underground stormwater system.

5. Neighbouring Property Conditions:

The property to the east, Number 23 Ballyshannon Road, contains a slightly raised 1980's style single storey rendered brick house located on about the middle of the block with tiled roof and basement level at the rear. There is a single car garage attached to the front northwest corner of the house and level lawn front yard with landscaped gardens around the perimeter. There is an elevated lawn backyard with inground swimming pool and boundary fence to the south. The house structure is in good condition while the property shows no obvious signs of instability.

The neighbouring property to the west, Number: 27 Ballyshannon Road, contains a raised two storey 1980's style dark grey rendered house with tiled roof and basement level to the south. There is a two car garage to the east front side of the house and steep, terraced landscaped garden front yard to the west. An elevated backyard contains an entertaining area and inground swimming pool. We noted significant settlement cracks in the front south-west corner at first floor level of this house suggesting possible foundation settlement.

A limited inspection of these neighbouring properties from within the site and public roadway reserve did not identify any signs of previous or impending landslide instability.

6. Assessment:

Based on the above items and on Councils flow chart check list (Page: 2 of 2 in Section E10), i.e., does the present site or proposed development contain:

- | | |
|--------------------------------|----------|
| • History of Landslip | No |
| • Proposed Excavation/Fill >2m | No |
| • Site developed | Yes |
| • Existing Fill >1m | Yes |
| • Site Steeper than 1V:4H | No |
| • Existing Excavation >2m | Possibly |
| • Natural Cliffs >3m | No |

It is considered that a detailed Landslip Risk Assessment is not required for this Development.

7. Date of Assessment: 20th November 2018.

8. Assessment by:



Peter Crozier
Senior Engineering Geologist.
MIEAust. CPEng. NER
Chartered Professional Engineer. Reg. No: 691550

9. References:

Architectural Design Plans (DA Issue) by Matt Elkan Architect, Drawing Numbers: DAC, DA1 to DA7, Dated: March 2019.

Survey by DP. Surveying, Reference Number: 3022, Dated: 15th August 2017