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**No. Pages:** 3

**Project No.:** 2020-179

Leung Architects  
25 Killarney Drive,  
Killarney Heights.  
N.S.W. 2087.

### **Preliminary Landslip Assessment for 25 Killarney Drive, 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 ̄B̄ which is classified as Flanking Slopes of between 5° and 25° (Warringah LEP Landslip Risk Map Sheet LSR\_008).

#### **2. Site Location:**

The site, 25 Killarney Drive, is located on the low west side of the road, within gently west dipping topography. The block contains a north-south striking natural cliff line (<2.0m height) through the rear of the block with the remainder end of the block occupied by an inground pool surrounded by a near level pool decking. The site is a rectangular shaped block with the front east boundary of 18.29m, rear west boundary of 18.29m, side north and south boundaries of 44.905m as referenced from the supplied survey drawing.

#### **3. Proposed Development:**

It is understood that the proposed works involve alterations to the existing north-east side of the dwelling. The works involves demolition of existing ground floor elements at the north eastern end of the dwelling and minor extension of the existing Ground Floor Level to the north-east.

It is further understood that the new footings will bear onto bedrock and no bulk excavation will be required for the proposed extension.

#### **4. Existing Site Description:**

Killarney Drive is formed with a gently north dipping bitumen pavement where it passes the site, with low concrete gutter and kerbs, a brick paved driveway and a grass lawn that extends west into the north-east front of the site. There were no signs of significant deformation or cracking in the pavement or reserve to indicate deep seated instability.

The eastern front of the site contains a stone paved driveway and a grass lawn in the southern and northern sides, respectively. The driveway and lawn both extend west and are supported by a low stone retaining wall along the western side. A pathway is formed in between retaining structures and lead west to a concrete paved pathway that borders the front-eastern side of the site-dwelling, which then connects to a series of stone paved steps that borders the northern side of the site-dwelling. Bedrock outcrop was observed within the stone paved steps to the north of the dwelling, comprising sandstone of low to medium strength. The driveway, retaining structure, pathway and stairs appeared in good condition. No rotation or signs or movement related to slope instability was observed within these structures.

The site contains the site-dwelling within the centre to eastern portion of the block. The site-dwelling comprises brick and contains a single storey within the eastern portion, forming a two-storey within the western portion. The site-dwelling extends north and south to within approximately 4.00m and 1.50m off the northern and southern site's boundaries, forming the stone paved steps and a concrete pathway to the north and south of the site-dwelling, respectively. Sandstone outcrop of low to medium strength was also observed directly adjacent to the dwelling's western rear wall (extending approximately <2.0m west) and within the concrete pathway to the south of the site-dwelling. The site-dwelling appears in good condition, with no signs of footing/ foundation settlement, cracking or movement related to slope instability.

The western rear of the site contains a gently west dipping lawn that extends to the north and south boundaries and extends west before an approximately <2.0m height, north-south striking natural cliff face intersects the rear of the block. The cliff face comprises sandstone bedrock of low to medium strength, containing sub-horizontal bedding defects. The western end of the block contains an in-ground swimming pool surrounded by a brick paved decking and supported by an approximately 1.50m high retaining structure along the western boundary. The rear lawn, sandstone cliff face, swimming pool, decking, and retaining structures appeared in good condition. Signs of excessive movement or signs of slope instability issues were not observed within this area of the site.

#### **5. Neighbouring Property Conditions:**

The neighbouring property to the north (No. 23 Killarney Drive) contains a one and two storey brick house with a garage below the north-east corner of the dwelling. The dwelling broadly occupies most of the eastern portion of the block and extends south to within approximately 1.50m off the common boundary. The property contains a lawn within the eastern front of the block and a grass lawn to the rear of the dwelling, that extends west before a north-south striking cliff line (extending from the site's cliff line) intersects the western rear end of the block. The cliff line appears mostly obscured by dense vegetation and contains a timber staircase where access to the western end of the block is achieved. The neighbouring property contains a similar Ground Surface Level (GS) adjacent to the site, however the western rear of the block is approximately 1.50m to 3.00m lower than the site's western rear GS. The neighbouring dwelling appeared in good condition, signs of excessive movement or signs of slope instability issues were not observed within the neighbouring property.

The neighbouring property to the south (No. 27 Killarney Drive) contains a one to two storey brick house and a detached brick carport at the north-eastern portion of the block. The eastern front of the property contains a concrete driveway and a lawn within the northern and southern sides, respectively. The western portion of the block is occupied by a grass lawn. The neighbouring dwelling extends north to approximately 2.80m from the common boundary, whilst the brick carport extends north to the common boundary. Limited observation was possible to the western portion of the property due to a paling fence limiting observation,

however the eastern portion contained no boundary structure and it was observed that the GSL (of the eastern portion of the block) is approximately 0.50m higher than the site. The neighbouring dwelling appeared in good condition, signs of excessive movement or signs of slope instability issues were not observed within the neighbouring property.

Limited observation was possible to the neighbouring properties to the west (No.18, No.20 and No.22 Drumcliff Avenue) due to the dense vegetation, a paling fence located along the western boundary and their moderately to steeply (visually determined) west dipping topography. The neighbouring properties contain dwellings approximately >10.00m off the common boundaries. The properties No.20 and No.22 contain dense vegetation within the rear of each block, whilst property No.18 contain a swimming pool and pool decking at the rear of the block. The western front of each neighbouring block contained moderately west dipping concrete driveways (access from Drumcliff Avenue) adjacent to a north-south striking sandstone cliff faces (approximately 0.00m height). Based on the limited observation to the neighbouring properties to the west, any signs of slope instability were not observed at least to the structures nearby the rear of the site.

The neighbouring buildings and properties were only inspected from within the site or from the road reserve however the visible aspects did not show any significant signs of large-scale slope instability or other major geotechnical concerns which would impact the site or the proposed development.

#### 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            | No  |
| • Site Steeper than 1V:4H      | No  |
| • Existing Excavation >2m      | No  |
| • Natural Cliffs >3m           | No  |

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

7. **Date of Assessment:** 22<sup>nd</sup> September 2020.

8. **Assessment by:**



Marvin Lujan  
Geotechnical Engineer

#### 9. References:

Architectural Drawings 6 by Leung Architects, Job No.: 206, Issue: B, Drawing No.: GA.01 (September 2019), GD.02 (June 2019), GA.02 (September 2020), GA.03 (September 2020), GA.04 (September 2020).