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Anna and Peter Littleboy 10 Kangaroo Street, Manly. N.S.W. 2095.

Preliminary Landslip Assessment for 10 Kangaroo Street, manly, NSW.

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 the preliminary assessment checklist.

1. Landslip Risk Class:

The site is located within Landslip Risk Class "G4" as identified within Northern Beaches (Manly) Councils, Development Control Plan 2013 – Schedule 1, Map 'C', being 'ridge crests, major spurs and dissected plateaus < 15° with a zone of "G4" downslope within adjacent properties to the north.

2. Site Location/Description:

The site, 10 Kangaroo Street, Manly, is located on the low north side of the road, across from the intersection with Quinton Road with the unformed road reserve of Pine Street passing the rear northern boundary. It is situated upslope of the crest of an east-west striking, steep slope/cliff, within gently sloping land that rises up to a larger ridge crest to the south.

The site is a rectangular shaped block with the front south boundary of approximately 12.19m and eastern side boundary of approximately 33.91m for a site area of 411m², as defined within the supplied survey drawing.

3. Proposed Development:

It is understood that the proposed works involve alterations to the existing house and site. Alterations are proposed at the Upper Floor level of the structure to infill a 'step in' at the south-east corner along with extending walls to the building edge along the western side with a new roof and access walkway also proposed. A new storeroom is proposed at the front of the site, between the two existing garages extending into the existing stair location at Middle Floor level of the structure. The new store room will require an excavation of up to 1.90m depth over a small footprint.

4. Existing Site Description:

Kangaroo Street is split into two levels with exposed, excavated sandstone bedrock with sandstone block wall above separating the two levels by up to 3.0m in elevation adjacent to the front of the site. The lower portion of the street is formed with a gently west dipping bitumen pavement with concrete kerb and gutter then narrow lawn and concrete footpath extending to the northern side of the road reserve. 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 is at street level and contains a single car garage at each of the south-east and south-west corners with a small paved terrace between. The north end of the terrace is defined by a garden bed and then set of stairs that provide access down to the house terrace at Middle Floor level and also a suspended walkway that provides access to the Upper Floor level of the house. To the rear of the western garage, at Middle Floor level is a laundry room whilst to the rear of the eastern garage are retained gardens. A paved terrace extends across the front of the house at Middle Floor level with pathways down each side providing access to the rear of the site. The eastern pathway is a suspended concrete structure with stairs whilst the western pathway is slab on ground and gently north dipping with minor stairs.

There was some evidence of cracking in the existing garage walls and some rising damp deterioration and cracking in the rear garage support walls, laundry, garden bed walls and stairs, though none indicates significant landslip instability or geotechnical hazard and appear likely related to the age of the structures and their resultant natural deterioration.

The existing house is a two and three storey brick residential house with the Lower Floor level formed below the rear half of the house only. The original house appears to be >50 years of age but is more recently renovated. Inspection of the external walls revealed no signs of excess settlement, cracking or geotechnical issue.

The rear of the property is formed as a small, gently north dipping garden/lawn area that extends from the Lower Floor level and is retained by up to 1.20m at the rear northern boundary via a rendered masonry retaining wall. There were no indication of excess cracking or deformation in the retaining wall or slopes.

5. Neighbouring Property Conditions:

The neighbouring property to the east (No. 8) contains a two to four storey brick and timber house that is formed within a terrace slightly lower than the site at the front. The house steps down to the rear due to surface topography with a lower ground floor level of brick construction and also extends across at upper floor levels to the street front level. A small brick garage is located in the south-west corner adjacent to the western boundary and the sites garage. The rear of the property contains a gently sloping garden retained up to 1.20m above the Pine Street reserve footpath via a sandstone block and brick retaining wall. The house appears at least 50 years of age though more recently modernised and is in good condition with no signs of instability or excess cracking/deformation observed in the external walls or adjacent structures.

The neighbouring property to the west, (No. 12) contains an older style (\approx 1910's) one and two storey brick house on sandstone block footings that is formed in the centre of the property within a terrace that is similar to the site. Two brick garages are formed at the front at street level whilst the rear of the block contains a gently sloping garden retained by brick and sandstone block retaining walls up to 1.50m above the Pine Street reserve footpath.

The Pine Street reserve contains a gently sloping paved footpath that passes at the rear boundary of the site and adjacent properties with a gently then steeply sloping vegetated slope dipping down to the north to a cliff line within the neighbouring properties (No. 21 to 27 Pacific Parade). There were no signs of instability or excess surface stormwater flow or erosion within the road reserve.

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

Based on the above checklist it is considered that a <u>detailed</u> Site Stability (Geotechnical) Report <u>is not</u> <u>required</u> for this Development. The proposed works are generally to the existing house structure and above ground. They involve a small area of excavation within the central southern portion of the site between the two site garage, therefore caution is required to prevent impact to existing garages within the site. However, the potential for impact to adjacent properties/structures or for the creation of landslip instability is considered negligible. It is therefore recommended that geotechnical inspection occur following clearing of the existing structures and prior to bulk excavation to assess exposed ground conditions.

7. Date of Assessment: 27th November 2020.

8. Assessment by:

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Troy Crozier Principal RPGeo.: Geotechnical and Engineering

9. References:

- Design Drawings DU PLESSIS + DU PLESSIS Architects, Drawing No.: A.01 to A.15, Issue: 1, Dated: 16/09/2020.
- Survey by Geomat Engineering Pty ltd, Job No.: 1784, Dated: 19/08/2019