

Ref: SRE/711/WH/20

20th November 2020

Attn: Pamela & Jerome Berbigier
44 Ennerdale Crescent
Wheeler Heights, NSW 2097

Dear Pamela & Jerome,

RE: PRELIMINARY GEOTECHNICAL ASSESSMENT FOR PROPOSED ALTERATIONS & ADDITIONS AT 44 ENNERDALE CRESCENT, WHEELER HEIGHTS NSW 2097 - PRELIMINARY GEOTECHNICAL ASSESSMENT

Further to the email received on the 4th of November 2020, Soilsrock Engineering was commissioned to carry a preliminary geotechnical assessment of the site conditions and give recommendations regarding the proposed development above.

1. INTRODUCTION

The current report describes the geotechnical assessment carried following the requirements of the Northern Beach Council - Warringah, according with Clause E10 of the Warringah Development Control Plan (DCP 2011), and the Warringah Local Environmental Plan 2011 (LEP 2011) Map which identifies the Landslip Risk Classes as per **Table 1** below.

Table 1 – LANDSLIP RISK CLASSES A TO E

Thick Box	LANDSLIP RISK CLASS (thick box indicates Landslip Risk Class of Property)
<input type="checkbox"/>	A Geotechnical Report not normally required
<input type="checkbox"/>	B Preliminary assessment of site conditions required to determine whether a geotechnical report is required.
<input type="checkbox"/>	C Geotechnical Report required
<input checked="" type="checkbox"/>	D Preliminary assessment of site conditions required to determine whether a geotechnical report required
<input checked="" type="checkbox"/>	E Geotechnical Report required

The site inspection was carried on 9th November 2020 to access existing site conditions. Details of the proposed development are shown on the Preliminary Architectural Drawings prepared by “Nadine Pruckner” dated 02/11/2020, which are part of the DA submission.

- Sheet No.: DA 01, Rev: A “DRAWING LIST + LOCATION PLAN”
- Sheet No.: DA 02, Rev: A “SITE ANALYSIS + SITE PLAN”
- Sheet No.: DA 10, Rev: P1 “EXISTIN FLOOR PLANS”
- Sheet No.: DA 11, Rev: P1 “GROUND FLOOR PLAN”
- Sheet No.: DA 12, Rev: P1 “FIRST FLOOR PLAN”
- Sheet No.: DA 13, Rev: P1 “ROOF PLAN”
- Sheet No.: DA 20, Rev: A “EXISTING ELEVATIONS”
- Sheet No.: DA 21, Rev: A “ELEVATIONS 01”
- Sheet No.: DA 22, Rev: A “ELEVATIONS 02”
- Sheet No.: DA 30, Rev: P1 “EXISTING SECTION”
- Sheet No.: DA 31, Rev: P1 “PROPOSED SECTION”

2. SITE LOCATION

The subject site is situated at 44 Ennerdale Crescent, Wheeler Heights NSW facing opposite to Ennardale Crescent to its East, surrounded by the residential properties such as 42 Ennardale Crescent at North side, 46 Ennardale Crescent to the South and 23 Ennardale Crescent to the East. The West side its bounded by trees and dense vegetation.

3. PROPOSED DEVELOPMENT

The development proposes to construct alterations and additions to the existing building, by remove the existing roof over the existing balcony located at the front of the residential building and replace by a new metal deck roof, new aluminium frame windows and remove existing external wall and enclose existing balcony. In addition, a new steel column is also required to support the balcony. At the rear back of the existing residential building the existing balcony is also proposed to be renovated by new steel columns, new glass balustrade, new timber handrail, new tiling and also replacement of the existing roof by a metal deck roof over the balcony.

4. EXISTING SITE DESCRIPTION

The subject site is known as Lot/Section plan: 86/DP209117, 44 Ennardale Crescent, Wheeler Heights NSW, which is in a rectangular shape with an approximate 638.60m² in total site area containing a brick dwelling surrounded by shallow stone walls at the entrance and metal and palisade side fences, bounding the residence from nearby neighbours.

The residential dwelling is a two-storey brick house in stable conditions. The house is sitting above a relatively flat area dropping approximately 1m from the front end of the property to the end of the existing building. From the rear end of the building the land drops significantly in a cliff of approximately 6.5m deep to the backyard. The front area of the property consists of a stabilised ground tilled pavement along with small shrubs and covered grass land positioned in both side boundaries of the residence. The rear area comprises of small trees and few palm trees extended through the backside yard with the residence sides fenced from the neighbouring properties.

From the analyses of Sydney 1:100 000 Geological Map, it is indicated the site is underlain by Hawkesbury Sandstone and characterised as Newport and Garie formation (Rnn) which can be described as an interbedded laminate, shale and quartz, to lithic-quartz sandstone.

The site is slopping down from Southeast to Northwest with approximately 5°-15° from the beginning of the property, and over 15° within the backyard area. No evidence of important cracks and/or settlements were observed, no evidence of slope instability was identified at the time of the inspection.

5. CONCLUSIONS

According with the Warringah Landslip Risk Map, the site is located partially within the Areas D (Collaroy Plateau Area Flanking Slopes 5 to 15 degrees) and E (Collaroy Plateau Area Slopes more than 15 degrees). Sites located within area E a Geotechnical Report is required (according with the Clause E10 of Warringah DCP 2011), and sites located within Area D a Preliminary Geotechnical assessment of the site conditions (this present report) is required to determine the need for a detailed Geotechnical report.

Further to the above it is concluded that a geotechnical report is required, based on the following:

- The site is located partially within the area E as described above, therefore a geotechnical report is required.

- The site is located partially within the Area D – therefore based on the present preliminary report and the existing Cliff located at the rear of the property with over 2.0m high (6.5m) (refer to the analyses of the Council Checklist Flowchart attached on the **Appendix 1**) a geotechnical report is required.
- Probable construction of a new column to support the balcony at the rear of the building close to the edge of the cliff is required, therefore further geotechnical report is required.

In addition, prior to carry out the geotechnical report, it is recommended that the structural engineer responsible for the alterations and additions confirm the following: new columns are required to support the balconies; location of those new columns; footing sizes and depth; allowable bearing pressures required for the founding materials.

Please do not hesitate to contact the undersigned if you have any questions regarding this letter report or if you require further assistance.

Yours faithfully,
For and on behalf of
Soilsrock Engineering Pty Ltd



Jorge Cabaco

BEng MEng MIEAust CPEng RPEQ NER

Principal Geotechnical Engineer

ENGINEERS AUSTRALIA

CHARTERED ENGINEER | NER NATIONAL ENGINEERS REGISTRATION No. 3789414

Appendix 1 – Checklist Flow Chart for Council's Assessment of Site Conditions and Need for Geotechnical Report in Landslip Risk Classes B and D

APPENDIX 1

CHECKLIST FLOW CHART FOR COUNCIL'S ASSESSMENT OF SITE CONDITIONS AND NEED FOR GEOTECHNICAL REPORT IN LANDSLIP RISK CLASSES B AND D

