Form 4 – Minimal Impact Certification

DA Number: _____

This form may be used where minor construction works which present minimal or no geotechnical impact on the site or related land are proposed to be erected within the "G" line area of the geotechnical maps.

A geotechnical engineer or engineering geologist must inspect the site and/or review the proposed development documentation to determine if the proposed development requires a geotechnical report to be prepared to accompany the development application. Where the geotechnical engineer determines that such a report is not required then they must complete this form and attach design recommendations where required. A copy of Form 4 with design recommendation, if required, must be submitted with the development application.

Please contact the Alpine Resorts Team in Jindabyne for further information - phone 02 6456 1733.

To complete this form, please place a cross in the appropriate boxes ☐ and complete all sections.

1. Declaration made by geotechnical engineer or engineering geologist in relation to a nil or minimal geotechnical impact assessment and site classification

I,

Mr ☑ Ms ☐ Mrs ☐ Dr ☐ Other ☐

First Name: ADRIAN

Family Name: HULSKAMP

OF

Company/organisation: JK GEOTECHNICS

certify that I am a geotechnical engineer /engineering geologist as defined by the "Policy" and I have inspected the site and reviewed the proposed development known as

PROPOSED 20m HIGH LIGHT TOWER

As a result of my site inspection and review of the following documentation

(List of documentation reviewed)

NA – None provided

I have determined that;

☑ the current load-bearing capacity of the existing building will not be exceeded or adversely impacted by the proposed development, and

☑ the proposed works are of such a minor nature that the requirement for geotechnical advice in the form of a geotechnical report, prepared in accordance with the "Policy", is considered unnecessary for the adequate and safe design of the structural elements to be incorporated into the new works, and

☑ in accordance with AS 2870.1 Residential Slabs and Footings, the site is to be classified as a type

(insert classification type)

Class 'P'

☑ I have attached design recommendations to be incorporated in the structural design in accordance with this site classification. Refer to attached Site Report, Ref: 32997RH SR, dated 13/2/2020.

I am aware that this declaration shall be used by the Department as an essential component in granting development consent for a structure to be erected within the "G" line area (as identified on the geotechnical maps) of Kosciuszko Alpine Resorts without requiring the submission of a geotechnical report in support of the development application.

2. Signatures

Signature

Chartered professional status

CP Eng 1480317

Name

ADRIAN HULSKAMP

Date

13 March 2024

3. Contact details

Alpine Resorts Team
Shop 5A, 19 Snowy River Avenue
P O Box 36, JINDABYNE NSW 2627
Telephone: 02 6456 1733
Facsimile: 02 6456 1736
Email: alpineresorts@planning.nsw.gov.au

Date: 13 February 2020
Ref: 32997RH SR

Site Report

Perisher Blue Pty Ltd

Attention: Mr David Rowson
Email: David.Rowson@perisher.com.au

GEOTECHNICAL INSPECTION
PROPOSED 20m HIGH LIGHT TOWER
BULLOCKS FLAT CAR PARK, KOSCIUSZKO NATIONAL PARK, NSW

As requested, our Senior Associate Geotechnical Engineer, Mr Adrian Hulskamp, visited the above site on 11 February 2020, to inspect the drilling of one borehole at the proposed light tower location. The location of the light tower, which was towards the middle of the car park, was marked out by others prior to our arrival on site.

From an email sent to us on 24 January 2020 by Mr Linden Coot of John Skurr Consulting Engineers, we understand that the proposed light tower is to be supported by a bored pier.

The borehole was drilled using a 450mm diameter pendulum auger fitted to a small excavator. A summary of the subsurface conditions encountered in the borehole is tabulated below:

Depth (m)	Material Description
0.0 – 0.4	Asphaltic Concrete surfacing (20mm thick) over roadbase over FILL: Sandy gravel, fine to coarse grained, grey. Dry.
0.4 – 0.8	RESIDUAL Silty CLAY (CH): high plasticity, brown. Very Stiff strength. w >PL Hand Penetrometer readings, 350kPa, 300kPa.
0.8 – 3.0	Extremely Weathered granite: Sandy CLAY, medium plasticity, light orange brown and light grey, fine grained sand, with silty CLAY bands. Very Stiff to Hard strength. Hand Penetrometer readings, 380kPa, 400kPa, 450kPa. No increased drilling resistance noted END OF BOREHOLE AT 3.0m DEPTH (Effectively the limit of reach). 'DRY' during, and on completion of, drilling

We note that extremely weathered granite had weathered to such an extent that it had soil properties, despite the mass structure and material texture appearance of the original rock still being visible.

Based on the subsurface conditions encountered in the borehole, construction of a bored pier would be appropriate, and we recommend that the design of the bored pier be based on the following:

- An undrained shear strength (S_U) of 150kPa below 1.5m depth, due potential shrink-swell effects. The upper 1.5m of embedment should be ignored.
- Ultimate and allowable end bearing pressures of 1,350kPa and 450kPa, respectively, provided the length to diameter ratio of the pier is greater than 4, and the founding depth of the pier is greater than 2.0m below existing surface levels.
- Ultimate and allowable shaft adhesion values of 60kPa and 20kPa, respectively, in compression, below 1.5m. For uplift, these adhesion values should be halved.

We note that if a pier deeper than 3.0m is required, then further geotechnical advice should be sought to discuss the footing design, in case higher strength granite bedrock is encountered, as there may be potential drilling difficulties achieving the required pier depth and strain incompatibility with the overlying soils and extremely weathered rock.

If you require further information, please do not hesitate to contact the undersigned.

Regards
For and on behalf of
JK GEOTECHNICS

Adrian Hulskamp
Senior Associate l Geotechnical Engineer

Reviewed by:

Nick Smith
Senior Associate l Geotechnical Engineer