

40 Pine Street, Manly

Stormwater Disposal for Proposed House

Scope

To assess the impact of a proposed spreader pipe to slope stability of the subject property and lower neighbouring properties.

The proposed spreader is shown on 3 plans prepared by Structerre Consulting, Job number 3.21.3215.3, Revision B, dated 20/7/21.

Geotechnical Hazards and Risk Analysis

No geotechnical hazards were observed above or beside the property. The steep slope that falls across the property and continues below is a potential hazard (**Hazard One**).

Geotechnical Hazards and Risk Analysis - Risk Analysis Summary

HAZARDS	Hazard One
TYPE	The steep slope that falls across the property and continues below failing and impacting on the property as a result of the proposed spreader installation.
LIKELIHOOD	'Unlikely' (10^{-4})
CONSEQUENCES TO PROPERTY	'Medium' (12%)
RISK TO PROPERTY	'Low' (2×10^{-5})
RISK TO LIFE	8.3×10^{-7} /annum
COMMENTS	This level of risk is 'ACCEPTABLE'.

(See Aust. Geomech. Jnl. Mar 2007 Vol. 42 No 1, for full explanation of terms)

Recommendations

According to the stormwater plans referenced at the start of this assessment, it is proposed to install a level spreader system on the slope underneath the proposed house. This system is suitable provided flows are kept to that of natural runoff for the site or less. The proposed location for the spreader is also suitable. However, in our opinion, the proposed spreader is considered to be too short and is likely to concentrate flows in one specific area. As such, the proposed spreader should be made longer across the site. All stormwater is to be piped through any tanks that may be required by the regulating authorities.

Once these recommendations are followed, the overland surface flows that are generated as a result of runoff from the proposed development roof should be no different to those that currently occur as a result of natural runoff on the site.

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