121 Pacific Road, Palm Beach

Assessment of Proposed Spreader Pipe

Scope

To determine the suitability of the location and to assess the impact of a proposed spreader pipe to the stability of the slope below. The system will dispose of stormwater from a proposed house.

The details of the proposed spreader are shown on 6 stormwater plans prepared by Demlakian Consulting Engineers, drawings numbered SW01 and SW06 are Revision P1, dated October, 2021; drawing numbered SW03 is Revision P2, dated October, 2021; drawing numbered SW02 is Revision P2, dated 1/11/21; and drawings numbered SW04 and SW05 are Revision P1, dated 2/11/21.

Discussion

The site was inspected on 27th October 2020.

The large block is characterised by two very differing grades that change approximately halfway across the block. The W half is gently sloping and developed. It will be the site of the proposed house. The E half is marked by a sandstone rock face that drops away to a steep natural bushland slope with a grade of some 20°. Another sandstone outcrop is present in the vicinity of the lower boundary. The cross fall of the land surface leads to the natural slope drainage path. No signs of slope instability, that could have occurred since the block was developed, were observed on the site.

Location

The location of the proposed spreader shown on the plans is such that the flows from the pipe follow the natural drainage path for the slope. It is a requirement of this documentation that the location of the proposed spreader pipe be marked out on site by the Geotechnical Consultant prior to the commencement of installation to ensure flows from the pipe will go in the direction intended.

Recommendations

This system is suitable as a last resort in the event that easements are not feasible that would allow stormwater to be piped to the street drainage below. Additionally, stormwater flows running to the spreader are to be kept to that of the 'natural runoff' for the site with the use of Onsite Detention. All stormwater is to be piped through the Onsite Detention tanks and any other tanks that may be required by the regulating authorities.

Conclusion

We are of the opinion slope instability will not arise from the installation of the spreader system provided good engineering and building practice are followed. Under these provisos, the installation of a spreader pipe has an 'Acceptable Risk Level' in accordance with the 2009 Geotechnical Risk Management Policy for Pittwater.

Inspections

To reiterate our earlier comments, prior to installation of the system, the Geotechnical Consultant is to finalise the position of the spreader pipe on site to ensure stormwater flows will go in the direction intended.

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