

Attention: Andrew Bain

**RE: Proposed Multi-Storey Development
 19A – 21 Gordon Street Coffs NSW
 Geotechnical Correspondence – Groundwater Impact Assessment**

1 INTRODUCTION

Regional Geotechnical Solutions Pty Ltd (RGS) have completed geotechnical and site contamination investigations and assessment for the proposed multi-storey development at 19A – 21 Gordon Street, Coffs Harbour. The results of the assessments are presented in various reports including:

- Geotechnical Report - RGS33669.2 – AB
- Contamination Report - RGS33669.2 – AD
- Acid Sulfate Soil Management Plan - RGS33669.2 – AC

This letter has been prepared in response to a request from Colliers Urban during their "Test of Adequacy" assessment. The point of concern is regarding the geotechnical report that indicates that groundwater will be intercepted by the proposed excavations.

2 ASSESSMENT

The drawings provided indicate the proposed development includes excavations for the 'subterranean spaces' varying from approximately 1.0 to 2.5m below ground surface level.

Groundwater monitoring wells installed as part of the assessment indicate groundwater is generally in the order of 1.6m across the site. Therefore, some of the excavations will possibly encounter groundwater.

Permeability testing undertaken at the adjoining site to the north (Yarrilla Place), which are within similar geological profiles indicate low soil permeability and therefore low inflow rates during excavation. Low inflow rates were observed during excavation works for the Yarrilla Place development and to the south at the corner of Gordon and Vernon Streets. These excavations extended to depths in excess of 3m below ground level and did not significantly impact the groundwater or require any significant dewatering.

Minor groundwater seepage may be encountered where excavations exceed about 1.6m. The inflow rates are likely to be low. They should be manageable via gravity drainage to a sump from where it can be pumped as required.

The 'subterranean space' will be constructed as a tanked structure; therefore, ongoing dewatering will not be required.



3 CONCLUSIONS

During construction some minor and temporary dewatering may be required. The volumes are expected to be low and are anticipated to be less than about 1,000 litres per day. This is not expected to cause any lowering of the groundwater level.

Once the excavations have been completed and the structures constructed no further interactions with the groundwater will occur.

Based on the assessment undertaken the excavations are not expected to cause any significant lowering or long-term effects on the localised groundwater regime.

If you have any questions regarding this project, or require any additional consultations, please contact the undersigned.

For and on behalf of **Regional Geotechnical Solutions Pty Ltd**

Prepared by

Adam Holzhauser

Principal Geotechnical Engineer