

Before the Selwyn District Council

under: the Resource Management Act 1991

in the matter of: Proposed Private Plan Change 69 to the Operative
District Plan: Lincoln South

and: **Rolleston Industrial Developments Limited**
Applicant

Summary of evidence of Chris Thompson (Geotechnical)

Dated: 22 November 2021

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SUMMARY OF EVIDENCE OF CHRIS THOMPSON

INTRODUCTION

- 1 My name is Christopher Thompson and I have over 15 years of geotechnical consulting experience. I have undertaken a wide range of geotechnical consulting work in New Zealand, Australia and England, including design and construction monitoring for many subdivisions and developments in the Canterbury region and across New Zealand, and also worked on large infrastructure projects.
- 2 I set out below a summary of the key points of my evidence dated 4 November 2021, and respond to matters raised in the evidence of **Ms Philippa Aitchison-Earl**.

SUMMARY OF EVIDENCE

- 3 Rolleston Industrial Developments Ltd engaged Coffey Services (NZ) Limited (now Tetra Tech (NZ) Limited) to carry out a geotechnical investigation and assessment of suitability for the proposed Plan Change and future subdivision at 1491 Springs Road, Lincoln, Canterbury. I am the Project Manager for the geotechnical investigation and design for this site.
- 4 My evidence for this rezoning request remains the same as that report and is attached to the Section 32 report for the plan change application.
- 5 The site investigations and preliminary liquefaction assessment indicates that the site is predominantly TC1-like. Other geotechnical hazards (static settlement, erosion, slippage and inundation) are considered low risk with appropriate future engineering design.
- 6 The presence of potentially organic soils in the low-lying eastern portion of the site increases the risk of static settlement in this area. It is likely that this area may be used for stormwater detention basins or general green space and as a result of this usage, residential buildings are unlikely. This risk will be assessed further once the overall subdivision development plan is confirmed. However, I do not anticipate this limiting development (eg. Roads, footpaths, house sites) in this area with appropriate geotechnical design and construction.
- 7 My assessment has considered the items required by section 106 of the RMA and in our opinion the site is considered geotechnically suitable for Plan Change and future subdivision. Further investigations and design will be carried out at the subdivision consent stage.

RESPONSE TO EVIDENCE OF MS AITCHISON-EARL

- 8 In paragraph 20 of **Ms Aitcheson-Earl's** evidence, there is a comment about the difficulty of grouting a CPT in the Styx catchment that encountered artesian conditions. Whilst I was not involved in that project, I can comment that, based on my experience, this is a rare occurrence. The CPTs carried out to date on the Lincoln South site have not encountered artesian conditions. If artesian conditions are encountered in a CPT, with a quick response, the majority can be sealed / grouted relatively simply.

CONCLUSION

- 9 The low-lying eastern portions of the proposed site may have higher risk geotechnical conditions, but this does not preclude development as these can be developed with appropriate geotechnical design and construction.
- 10 From a geotechnical perspective, the majority of the proposed development is considered low risk due to the dense underlying gravel deposits and the ability to design future structures to cope with the seismic and static settlement demands.
- 11 I am happy to answer any questions concerning my evidence or the proposed conditions.

Dated: 22 November 2021

Chris Thompson