

Geotechnical Fact Sheet - Ravenswood Commercial

- Earthworks have been carried out in accordance with the requirements of NZS 4431:1989 (Code of Practice for Earthworks for Residential Development).
- There is a Tonkin and Taylor geotechnical interpretative report available which addresses the deep ground conditions.
- All commercial lots in Ravenswood have been classified as having the potential for ‘minor’ liquefaction and lateral spread. This is equivalent to the Technical Category 2 (TC2) classification applied to residential areas.
- A further geotechnical completion report has been undertaken on completion of all civil works by Davis Ogilvie, confirming that the necessary work required by the Tonkin & Taylor report has been completed. The Davis Ogilvie report also includes the original Tonkin & Taylor report as Appendix A. This document is available from Ravenswood on request.
- Due to the potential variability in size and loading on commercial buildings, commercial areas are not covered by the Technical Category (TC) classification system applied to residential areas. Therefore in addition to the Tonkin & Taylor geotechnical report, site specific geotechnical investigations addressing the shallow ground conditions, and specific foundation design is required for all building consents in the commercial area. This requirement is not unique to Ravenswood and generally applies throughout Canterbury.
- The Davis Ogilvie and Tonkin & Taylor reports contain a variety of information relevant to the foundation design. In particular, the existence of gravel raft and geogrid under parts of the site to mitigate the lateral spread potential should be noted (Davis Ogilvie, Section 3). This gravel raft extends to a 1.8m depth (2.1m below finished ground level where there is 0.3m of topsoil). Section 4.3 of the Tonkin & Taylor report documents that if the designer intends to rely on this for lateral spread mitigation, at least 1m separation between foundation and bottom of gravel raft is required (equating to a foundation depth of no more than 1.1m from finished ground level). A greater depth than 1.1m is still likely to be acceptable, but they cannot rely necessarily on the gravel raft and geogrid to mitigate this, and specific design by the owner to mitigate the lateral spread potential may be required.
- Owners may use any consultant they choose to undertake the site specific investigation and foundation design. Davis Ogilvie are familiar with the site, and owners may choose to engage them. Details below:

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