

GEOTECHNICAL ASSESSMENT TO SATISFY SECTION 106 RMA MATTERS

1.0 BACKGROUND

- 1.1 Bulletin 23 was initiated immediately after the September 2010 earthquake to ensure and recognise that hazards resulting from seismic activity were dealt with in terms of Council's obligation under the Resource Management Act and more specifically section 106 of the Act.
- 1.2 The bulletin has since been replaced by Bulletin 23.1 (November 2011) and it is considered that due to the introduction of the Recovery Strategy by CERA and some clarification required in the reporting of Geotechnical Reports in respect to Section 106 assessment, a further update is warranted.

2.0 CERA - RECOVERY STRATEGY

- 2.1 The Recovery Strategy prepared by CERA under the Canterbury Earthquake Recovery Act became operative on 1 June 2012. It is a statutory document that must be "read together with and forms part of" other relevant legislation within the greater Christchurch area. The City Plan (and other statutory documents) must not be interpreted or applied in a way that is inconsistent with the Recovery Strategy. A priority of the Recovery Strategy is:

Regulation, standards and other information to support the rebuild and repair of housing to a quality that meets the technical requirements for the land categories and building standards. One of these requirements is that:

- *When making a resource consent application or a request for a plan change for the subdivision of land, the person proposing the subdivision must address the risk of liquefaction. As a minimum, that person must provide the local authority with a geotechnical assessment in accordance with the Guidelines for the geotechnical investigation and assessment of subdivisions in the Canterbury region (Department of Building and Housing, 14 November 2011). [This requirement does not apply where a building will not be permitted as a result of the subdivision of land.]*

Recovery Strategy Priorities, section 5, pg 12.

- 2.2 The Guidelines referred to in the Recovery Strategy have since been replaced with the *Guidelines for the investigation and assessment of subdivisions on the flat in Canterbury (Ministry of Business, Innovation and Employment, December 2012)*. The Recovery Strategy will be updated in due course but the current version of the Guidelines are to be applied in the meantime.

The guidelines are available on the MBIE website: <http://dbh.govt.nz/subdivisions-assessment-guide>.

- 2.3 A [Fact Sheet](#) produced by CERA is available from the Christchurch City Council website.

3.0 MBIE "GUIDELINES FOR THE INVESTIGATION AND ASSESSMENT OF SUBDIVISIONS ON THE FLAT IN CANTERBURY (SEPTEMBER 2012)

- 3.1 In accordance with the requirements of the Recovery Strategy the Guidelines are now statutory in their application.
- 3.2 Summary of the Guidelines, minimum requirements:
 - An application is to be supported by appropriate geotechnical investigation and a standalone report prepared by a suitably qualified and experienced geotechnical engineer (CPEng).
 - Report shall provide justifiable statements about all pertinent geotech aspects and consider relevant Section 106 RMA issues.
 - Site investigations consist of the recommended form of testing as judged by the geotechnical engineer.
 - Site investigation density to be in accordance with a range identified in the appropriate table.
 - Site data is to be analysed using recognised methods to determine liquefaction susceptibility and likely ground deformation.
 - Recommendation that residential lots in new subdivisions meet the performance criteria specified for TC1 or TC2. (Note: The liquefaction assessment procedures outlined in the guidelines must be used in order for the MBIE Technical Category behaviour designation to be determined for subdivisions and foundation solutions.)

4.0 THE GEOTECHNICAL REPORT

- 4.1 The report will be of a nature which will satisfy the Council that it has information presented to it to be satisfied that sufficient measures are being proposed to meet the requirements of Section 106 RMA.
- 4.2 The report will address but not be limited to the following bullet points:
- The standalone report is to be prepared by a suitably qualified and experienced Geotechnical Engineer (CPEng).
 - The report will be accompanied by a “Statement of Professional Opinion on the suitability of land subdivision” (use [PDF](#) or [Word](#) version) completed by the Geotechnical Engineer.
 - The report shall combine all relevant geotechnical information in both a factual and interpretive manner, provide justifiable statements about all pertinent geotechnical aspects and consider relevant Section 106 issues for both land and structures.
 - For land already classified TC1 or TC2 (where the original parcel size is less than 2,500m²) it may be assumed that the land remains that classification for liquefaction assessment purposes. However a report prepared by a Geotechnical Engineer (CPEng) is still required, which as a minimum, is to be based on a visual assessment plus other reasonable enquiry, and concludes that the original TC1 or TC2 classification is appropriate. For TC2 land, hybrid TC2/TC3 foundations or TC3 surface structure foundations must be recommended in the report. Normal geotechnical investigations are required to evaluate other potential geotechnical issues.
 - The onus is on the applicant/consultant engineer to propose measures that will satisfy the Council, who will determine whether the proposed measures will be sufficient to meet the requirements of Section 106. Hence it is important that the report is conclusive in its recommendations.
 - The conclusion and recommendations are to include:
 - The amount of material damage that could be expected to occur (if any).
 - Recommended measures of ground improvement.
 - The practicability or otherwise of undertaking ground improvement measures, including potential effects beyond the site.
 - Evaluated risk if measures not undertaken.
 - Site Investigations - MBIE Guideline document sets out the minimum requirements for ground evaluation.
 - Site Investigation Density - refer MBIE Guidelines.
 - Liquefaction Assessment - refer MBIE Guidelines.
 - Hillside applications will continue to require reports in respect to rockfall and slippage with similar conclusions and recommendations as for hazards resulting from seismic activity. The report will also need to address slope stability and ground bearing capacity aspects to ensure building sites are available.
 - Land subject to inundation and erosion will also require Section 106 assessment.
- 4.3 The report will conclude why Council is justified in granting consent with recommended conditions proposing measures to avoid, remedy or mitigate any potential effects of hazards on the land subject to the application.
- 4.4 Failure to provide all the relevant information in the report may result in the application not being accepted for processing, or a request being issued for further information and the application being put on hold.

5.0 WHEN GEOTECH REPORTS ARE APPLICABLE

- 5.1 All subdivision applications (from two lot infill to major Greenfield projects) are to include a geotechnical report as part of the Assessment of Environmental Effects (AEE).
- 5.2 This includes applications for residential, commercial, industrial and rural category of activities.

6.0 EXEMPTIONS WHERE GEOTECH REPORT IS NOT REQUIRED

- 6.1 Applications where all lots are already fully developed.
- 6.2 A boundary adjustment where no resulting allotment is capable of being built on.
- 6.3 Applications for a change in tenure ie cross lease to fee simple, unit title to fee simple.

7.0 PROVISIO TO EXEMPTIONS

7.1 The above exemptions have been adopted from the Recovery Strategy requirements. The Council is still obligated to address Section 106 matters and there may be occasions given the circumstances, where Council could still require a geotech report, e.g. where existing buildings have suffered structural damage.

8.0 REVIEW OF GEOTECH REPORTS

8.1 Council reserves the right to request a peer review in the circumstances as outlined in clause 4.4.9 Part 4 of Council's Infrastructure Design Standards.

9.0 EFFECTIVE DATE OF BULLETIN

9.1 Bulletin 23.2 replaces Bulletin 23.1 and is effective immediately.