[TO BE PLACED ON HOMEOWNER/INSURER LETTERHEAD]

*[Date]*

*[NAME OF ENGINEER]***By email**: [*EMAIL*]

## letter of engagement – assessment report – GEOTECHNICAL

## [address]

*[name] (the homeowner/the insurer)* would like to engage you, under the terms and conditions set out in Schedule 3, to undertake a geotechnical assessment at *[address]* (the **property**), identify any **land** **damage** from *[specify the natural disaster event]* and recommend an appropriate reinstatement methodology for that **land**.

Please provide your assessment and recommendations in the form of a written report, using the framework in Schedule 2. All bolded words in this letter are defined in Schedule 1. Please use these definitions when completing your assessment and report.

Please let *[name]* know as soon as possible, after reading through the relevant documentation in Schedule 4 and completing your walkover visual assessment of the site, if you find that you need to undertake any additional site investigations, require input from another professional, or require any further information (such as survey information).

## Your obligations

You should carry out your geotechnical assessment objectively and not act as an advocate for any party. You must act without bias. Your role is to give your client technically accurate advice, regardless of whether that advice aligns with your client’s interests or opinion.

You must also comply with the Engineering New Zealand Code of Ethical Conduct when carrying out this work.

We are not asking you to interpret the Earthquake Commission Act, the insurance policy, comment on the cost of reinstatement, advise, comment or make decisions on the extent of EQC or the insurer’s obligations.

To undertake this work, you should be a Chartered Professional Engineer, senior engineer, or Professional Engineering Geologist with appropriate training and experience in geotechnical engineering and in assessments of damaged property. You should also have a strong knowledge of regulatory requirements and how to apply them. You must only advise on matters within your area of competence as a geotechnical engineer or engineering geologist.

You may find that you have a conflict of interest and cannot carry out the assessment we are asking for. For example, if you or someone else at your firm has previously provided an assessment or reinstatement advice in relation to the property for another party. Please consider this carefully and let us know before you accept this engagement if you might have a conflict of interest,.

You should ensure that as part of your assessment you discuss with the home owner their observations of **damage** from the natural disaster event.

## Damage Assessment

After you review the background information about the **property** that is attached at Schedule 4, please carry out an appropriate onsite **[non-intrusive inspection/ shallow geotechnical investigation/ deep geotechnical investigation]*****[select one]***to assess any **land damage.**

In your report, please make all reasonable efforts to identify and explain the following (with supporting evidence):

### Damage to the land from the natural disaster event

* any **land** **damage** that has been caused by the natural disaster event; and
* any work that has been carried out to repair the **land** **damage** and any aspect of that work you consider is inadequate; and
* recommendations for any emergency works to reduce the risk of additional avoidable damage.

### Pre-existing conditions or damage

* any pre-existing conditions or damage to the land that have been exacerbated by the natural disaster event; and
* anyconditions or damage to the land you consider to be pre-existing and not exacerbated by the natural disaster event.

### Multiple events

* if there have been multiple natural disaster events more than 48 hours apart, apportionment of the **damage** sustained by the **property** in each natural disaster event and the remediation methodology required for each.

### Supporting information

* Your report should contain appropriate photographs, test results, and diagrams to illustrate the points you are making.
* Include a scaled site plan so that a reader can understand the **property** layout and **land** **damage** locations.
* Identify any house or outbuilding **damage** that is relevant to the **land damage**, including evidence of structural **damage**, foundation dislevelment and settlement or movement and cosmetic damage to cladding and linings. Your report should also discuss how the levels and variances relate to the **land damage**.
* You should identify where you agree or disagree with any other engineering report/s on the **property** and provide reasons as to why you agree or disagree.

### Any additional information required

* An outline of any additional investigations or assessments needed to complete your assessment of the reinstatement recommendations, in particular any **deep geotechnical investigations**.

## Reinstatement methodology

If you have identified either **land damage** to the property or repair/reinstatement work that is inadequate from a geotechnical perspective, please provide your opinion on whether the **damage** can be repaired or reinstated to **the required standard.**

As part of providing your opinion:

* if the **land** **damage** cannot be remedied, or fully remedied, explain why;
* if there are any conditions, damage, alterations or renovations that predate the natural disaster event and/or prevent reinstatement of the land to **the required standard**, please explain why.

If the **land** **damage** can be remedied, describe the methodology needed to reinstate the **damage** to **the required standard**, and outline the expected scope of works to be completed as part of the construction programme. If there is more than one appropriate and feasible methodology for reinstatement to **the required standard**, please describe the functional advantages and disadvantages of each possible methodology.

Your recommended remediation methodology should be sufficiently detailed to allow an estimator to prepare a costed scope of works based on your report.

## Facilitation

If there is disparity between your report and the report of an engineer for another party, you may be asked to participate in an Engineering New Zealand Facilitation process with that other engineer. You are obliged to participate openly and professionally in that process at an agreed additional fee if asked.

## Expert witness

If there is a dispute between the parties, you may be asked to attend a dispute resolution process such as a facilitation, determination, or tribunal or court proceedings. Before you issue your report, please ensure you have read, understood and complied with the High Court Code of Conduct for Expert Witnesses, enclosed in Schedule 4.

## Fees

The *[homeowner/insurer]* will pay you *$xx [lump sum or hourly rate, to be agreed]* plus GST for the services provided under this letter of engagement.

## Engagement

You may not assign or subcontract this engagement without *[name]*’s prior written consent.

After you issue your report, you may be engaged under a new contract with the homeowner to complete detailed design, provide construction documentation, assist in the consent application process and/or provide construction observation and support services for your reinstatement methodology, including issuing a Producer Statement 1: Design (PS1) and Producer Statement: Construction Review (PS4) if necessary.

Please contact *[name]* if you need to discuss any part of this letter. Otherwise please sign below and return by email by *[date]* or as otherwise discussed. Thank you for assisting us in this matter.

Yours sincerely

*[Name]*

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I am a suitably competent engineer to undertake this work and I accept the terms as set out in this letter of engagement.

*[signature of engineer]*

*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
[NAME – ENGINEER] on behalf of [FIRM/COMPANY]
DATE*

# schedule 1: definitions

### “Damage”

A structural element is **damaged** by a natural disaster event if,

* its physical state has been measurably or visibly altered by the natural disaster event in a negative way; and
* that alteration is more than de minimis (meaning trivial or minimal); and
* that alteration affects the original functionality of the structural element.

### “Deep geotechnical investigation”

In general, a deep geotechnical investigation is one that extends to a depth greater than 6m below the ground surface. The type and scope of a deep geotechnical investigation must be determined by a Chartered Professional geotechnical Engineer or Professional Engineering Geologist. Details of the various types and guidance for the appropriate specification of deep geotechnical investigations are outlined in the MBIE publication “*Guidance for repairing and rebuilding houses affected by the Canterbury Earthquakes*”.

### “Exacerbation”

Where there is pre-existing damage and deterioration in the **land**, the additional physical effects caused by a natural disaster must make a material difference to the value or usefulness of the land to be damage the Earthquake Commission Act will respond to.

### “House”

The insurance policy will define what structures on the property are covered by the policy and what are not. For example, the dwelling, garages, glasshouse, swimming pools, retaining walls, driveways, and so forth. Residential house policies do not provide cover for land.

Some policies refer to the term “house” when defining what structures are covered by the policy. Other policies may refer to the term “building”. Whatever term is used, please check the policy to see what structures on the property should be considered in your assessment and recommendations.

**“Land”**

The insured land at ***[insert address]*** includes:

* the land under the **House** and outbuildings (e.g. a shed or garage);
* the land within eight metres of the **House** and outbuildings;
* the land under or supporting the main accessway, up to 60 metres from the House (but not the driveway surfacing);
* bridges and culverts within the above areas; and
* retaining walls that are necessary to support or protect the home, outbuildings or insured land.

### “Land Damage”

Land damage requires a physical change or loss to the body of the land that has occurred, or is imminent, as the direct result of a natural disaster and which affects the use and amenity of that land.

### “Non-intrusive site inspection”

means a site walkover, visual assessment and review of any data reasonably relevant to the property on the New Zealand Geotechnical Database at the time of preparing the report.

**“Property”**

means the **house** and **land** and other improvements at ***[insert address]***

### “shallow geotechnical investigation”

In general, a shallow geotechnical assessment is one that extends to a maximum depth of between 3 and 6m below the ground surface. A shallow geotechnical investigation shall follow the procedure generally outlined in NZS3604:2011~~, but with an investigation depth of 3-4 metres~~. The type and scope of a shallow geotechnical investigation must be determined by Chartered Professional geotechnical Engineer or Professional Engineering Geologist. Further details of the various types and guidance for the appropriate specification of shallow geotechnical investigations are outlined in the MBIE publication “*Guidance for repairing and rebuilding houses affected by the Canterbury Earthquakes*”.

### “the required standard”

Where **land damage** from the natural disaster event has occurred, your reinstatement methodology, whether it involves repair or replacement of the land must meet the following requirements:

1. It needn’t replace or reinstate the land exactly or completely, but only as circumstances permit and in a reasonably sufficient manner.
2. To the extent that the land damage consists of or results from ground-forming materials or other debris on the land (including as a consequence of a natural landslip), the repair or reinstatement is limited to the removal of the debris.
3. For retaining walls, bridges and culverts, the reinstatement work must meet current building regulatory requirements, including the Building Code to the extent required by the Building Act.

# schedule 2: reporting framework GEOTECHnical engineering

Engineering New Zealand recommends that engineers reporting on damage assessments and reinstatement set out their reports using the following framework.

The purpose of this framework is to provide greater consistency in the way engineers report their assessments of damage from a natural disaster event and reinstatement methodologies. This helps homeowners and insurers more easily compare reports and identify where their engineers agree and disagree.

Engineering New Zealand recommends that engineers set out their reports using the following headings, and make sure that, at a minimum, they address the points in the explanatory notes for each heading.

## damage assessment and REINSTATEMENT reporting framework

|  |  |  |
| --- | --- | --- |
| Section  | Content | Explanatory notes |
| 1.  | **Scope of engagement** | Reference the standard set out in the policy, as well as the definition of the standard from the instruction. Limitations/disclaimers  |
| 2. | **Summary of inspections undertaken** | Date, scope of inspection and personnel involved |
| 3. | **Documentation reviewed** | Any previous assessments; geotechnical reports and available relevant data on the New Zealand Geotechnical Database |
| 4. | **Site description** | Include topographical and geomorphological information, buildings and outbuildings, accessways, vegetative cover, relevant information about the site setting and surrounding environment (e.g. where appropriate, geological setting, upslope and downslope conditions and hazards, hydrological risks, etc). |
| 5. | **Structural considerations** | Key relevant points from any structural reports |
| 6. | **Summary and discussion of damage from the natural disaster event and any previous repairs** | Nature, cause and impact of the damage, including any reasonably foreseeable imminent further damage if repairs are not carried out. Any safety concerns. Provide where appropriate a sketch plan of the site, showing the important site features, damaged areas, etc, and where appropriate provide site cross sections.  |
| 6.1 | Homeowner comments | Relevant damage observations from the homeowner as well as any information provided by the homeowner about previous repairs, alterations and renovations. |
| 6.2  | Damage from natural disaster event | Identify current damage, establishing what was caused or exacerbated by the natural disaster event, and differentiating from non-disaster damage, with supporting evidence. Consider xyz |
| 6.3 | Pre-existing condition of land | Include photographs and any other information about the pre-disaster condition of the property |
| 6.4 | Any previous repairs undertaken | Identify the nature and effectiveness or otherwise of any previous repairs |
| 6.5 | Urgent work recommendations | A description of any urgent construction works recommended to improve the short-term geotechnical stability of the property and/or robustness or weather-tightness of any structure to reduce the risk of additional avoidable damage. |
| 7. | **Reinstatement methodology** |  |
| 7.1 | Definition of required standard applied |  |
| 7.2 | Recommended remediation | Outlining how the damage attributable to the natural disaster event is to be remedied (taking into account any previous repairs) in order to meet the required standard |
| 7.3 | Further investigations or information required |  |
| 7.4 | Further engineering design input required |  |
| 8. | Summary | Summarising the key findings and recommended remediation approach (options) |

# schedule 3:

# short form conditions of engagement

1. The Consultant shall perform the Services as described in the attached documents.
2. Nothing in this Agreement shall restrict, negate, modify or limit any of the Client’s rights under the Consumer Guarantees Act 1993 where the Services acquired are of a kind ordinarily acquired for personal, domestic or household use or consumption and the Client is not acquiring the Services for the purpose of a business.
3. The Client and the Consultant agree that where all, or any of, the Services are acquired for the purposes of a business the provisions of the Consumer Guarantees Act 1993 are excluded in relation to those Services.
4. In providing the Services the Consultant shall exercise the degree of skill, care and diligence normally expected of a competent professional.
5. The Client shall provide to the Consultant, free of cost, as soon as practicable following any request for information, all information in his or her power to obtain which may relate to the Services. The Consultant shall not, without the Client’s prior consent, use information provided by the Client for purposes unrelated to the Services. In providing the information to the Consultant, the Client shall ensure compliance with the Copyright Act 1994 and shall identify any proprietary rights that any other person may have in any information provided.
6. The Client may order variations to the Services in writing or may request the Consultant to submit proposals for variation to the Services. Where the Consultant considers a direction from the Client or any other circumstance is a Variation the Consultant shall notify the Client as soon as practicable.
7. The Client shall pay the Consultant for the Services the fees and expenses at the times and in the manner set out in the attached documents. Where this Agreement has been entered by an agent (or a person purporting to act as agent) on behalf of the Client, the agent and Client shall be jointly and severally liable for payment of all fees and expenses due to the Consultant under this Agreement.
8. All amounts payable by the Client shall be paid within twenty (20) working days of the relevant invoice being mailed to the Client. Late payment shall constitute a default, and the Client shall pay default interest on overdue amounts from the date payment falls due to the date of payment at the rate of the Consultant’s overdraft rate plus 2% and in addition the costs of any actions taken by the Consultant to recover the debt.
9. Where Services are carried out on a time charge basis, the Consultant may purchase such incidental goods and/or Services as are reasonably required for the Consultant to perform the Services. The cost of obtaining such incidental goods and/or Services shall be payable by the Client. The Consultant shall maintain records which clearly identify time and expenses incurred.
10. Where the Consultant breaches this Agreement, the Consultant is liable to the Client for reasonably foreseeable claims, damages, liabilities, losses or expenses caused directly by the breach. The Consultant shall not be liable to the Client under this Agreement for the Client’s indirect, consequential or special loss, or loss of profit, however arising, whether under contract, in tort or otherwise.
11. The maximum aggregate amount payable, whether in contract, tort or otherwise, in relation to claims, damages, liabilities, losses or expenses, shall be five times the fee (exclusive of GST and disbursements) with a maximum limit of $NZ500,000.
12. Without limiting any defences a Party may have under the Limitation Act 2010, neither Party shall be considered liable for any loss or damage resulting from any occurrence unless a claim is formally made on a Party within 6 years from completion of the Services.
13. The Consultant shall take out and maintain for the duration of the Services a policy of Professional Indemnity insurance for the amount of liability under clause11. The Consultant undertakes to use all reasonable endeavours to maintain a similar policy of insurance for six years after the completion of the Services.
14. If either Party is found liable to the other (whether in contract, tort or otherwise), and the claiming Party and/or a Third Party has contributed to the loss or damage, the liable Party shall only be liable to the proportional extent of its own contribution.
15. Intellectual property prepared or created by the Consultant in carrying out the Services (“New Intellectual Property”) shall be jointly owned by the Client and the Consultant. The Client and Consultant hereby grant to the other an unrestricted royalty-free license in perpetuity to copy or use New intellectual Property. Intellectual property owned by a Party prior to the commencement of this Agreement and intellectual property created by a Party independently of this Agreement remains the property of that Party. The ownership of data and factual information collected by the Consultant and paid for by the Client shall, after payment by the Client, lie with the Client. The Consultant does not warrant the suitability of New Intellectual Property for any purpose other than the Services or any other use stated in the Agreement.
16. The Consultant and the Client will be aware of, and comply with, any relevant obligations imposed on them under the Health and Safety at Work Act 2015 (the “Act”). The Consultant has not and will not assume any duty imposed on the Client from time to time pursuant to the Act arising out of this engagement.
17. The Client may suspend all or part of the Services by notice to the Consultant who shall immediately make arrangements to stop the Services and minimise further expenditure. The Client and the Consultant may (in the event the other Party is in material default) terminate the Agreement by notice to the other Party. Suspension or termination shall not prejudice or affect the accrued rights or claims and liabilities of the Parties.
18. The Parties shall attempt in good faith to settle any dispute by mediation.
19. This Agreement is governed by the New Zealand law, the New Zealand courts have jurisdiction in respect of this Agreement, and all amounts are payable in New Zealand dollars.

# schedule 4: high court code of conduct for expert witnesses

## Duty to the court

1. An expert witness has an overriding duty to assist the court impartially on relevant matters within the expert’s area of expertise.
2. An expert witness is not an advocate for the party who engages the witness.

**2A** If an expert witness is engaged under a conditional fee agreement, the expert witness must disclose that fact to the court and the basis on which he or she will be paid.

**2B** In subclause 2A, **conditional fee agreement** has the same meaning as in [rule 14.2(3)](http://www.legislation.govt.nz/regulation/public/2016/0225/latest/link.aspx?id=DLM6952105" \l "DLM6952105), except that the reference to legal professional services must be read as if it were a reference to expert witness services.

## Evidence of expert witness

1. In any evidence given by an expert witness, the expert witness must—
	1. acknowledge that the expert witness has read this code of conduct and agrees to comply with it:
	2. state the expert witness’ qualifications as an expert:
	3. state the issues the evidence of the expert witness addresses and that the evidence is within the expert’s area of expertise:
	4. state the facts and assumptions on which the opinions of the expert witness are based:
	5. state the reasons for the opinions given by the expert witness:
	6. specify any literature or other material used or relied on in support of the opinions expressed by the expert witness:
	7. describe any examinations, tests, or other investigations on which the expert witness has relied and identify, and give details of the qualifications of, any person who carried them out.
2. If an expert witness believes that his or her evidence or any part of it may be incomplete or inaccurate without some qualification, that qualification must be stated in his or her evidence.
3. If an expert witness believes that his or her opinion is not a concluded opinion because of insufficient research or data or for any other reason, this must be stated in his or her evidence.

## Duty to confer

1. An expert witness must comply with any direction of the court to—
	1. confer with another expert witness:
	2. try to reach agreement with the other expert witness on matters within the field of expertise of the expert witnesses:
	3. prepare and sign a joint witness statement stating the matters on which the expert witnesses agree and the matters on which they do not agree, including the reasons for their disagreement.
2. In conferring with another expert witness, the expert witness must exercise independent and professional judgment, and must not act on the instructions or directions of any person to withhold or avoid agreement.

# schedule 5: additional information about the PROPERTY