

RISKNET LIMITED
Postquake property
Due Diligence

Private and Confidential

Client name: Naomi Ambrose

Floor Levels Survey

**Address: 147 King Street,
Sydenham, Christchurch**



Assessments undertaken by Risknet Limited
Stuart Fletcher, Director
Site: 21.10.2025
Report: 26.10.2025

Scope of assessment

The client engaged Risknet to complete a Floor level survey at 147 King Street, Sydenham, Christchurch. The Floor levels survey is intended to supply the client with independent data in relation to the floor variances across the floor plane, and how the recorded levels compare to the Ministry of Business Innovation and Employment (MBIE) guidelines as set in 2011 and updated by MBIE in 2012.

Floor levels Methodology

Levels were recorded using a **Zip Level Pro** to New Zealand Institute of Surveyors (NZIS) recommended methodologies. Other measuring devices may include digital levels, spirit levels & tape measures.

A satisfactory number of elevations (>50) were recorded on site.

- Levels undertaken by Stuart Fletcher
- Zip Level Pro unit #66799
- Zip level serviced
- Acclimatized on site (min 20) Actual >30min.
- Zip Level Pro calibrated on site.
- Temperature noted throughout dwelling.
- Weather: Interior of the house consistent variance circa 1C. No heating on within dwelling.
- Levels were not unduly affected by sunlight or underfloor heating (closed curtains).
- A single datum was set: 300mm offset – marked on floor plan.
- ‘Spiked tip’ on staff(s)

Levels are taken using a metal staff attached with a ‘**spiked tip**’ to penetrate soft floor coverings (carpet/rugs) that enables consistency throughout the dwelling and ensures that levels are not unduly affected by thickness of carpets, rugs underlays and the like. Thicker/dense rugs may be removed.

The datum will be shown on the plan and set as ‘o’ (zero). All levels recorded will either be positive (above zero) or negative (below zero and prefixed by a ‘-’ minus sign). Where a Precision level has been used, wall targets are mounted on numerous wall surfaces throughout the dwelling to enable the datum to be transferred.

Hard surfaces, including direct fixed coverings such as vinyl, cork, hardwoods, parquet or laminate or floating flooring, tiles, and any other elements, we note that these can affect the elevations recorded. Risknet records levels on hard surfaces at face-value ‘in-situ’ levels. Adjustments, where made, will be noted on the floor plan(s).

Determining Floor levels results

It is preferable to consider a broad range of criteria, where considerations are not limited to, but may include the following; the age and location of the dwelling, the land designation as determined by CERA (TC1-TC3), documented (or undocumented) alterations and additions, earthquake related information (Earthquake Commission (EQC) claims and data, Private Insurer claims and data, Trades information, consultants reports, scope of works, invoices, producer statements, quotes, repairs & remediation, information gathered from external sources such as MBIE and BRANZ, and importantly the specific locations of the high and low elevations in regards to the floor levels within a dwelling.

In-situ (face value) levels are recorded on site. The clear, and obvious limitation to face-value levels is that we cannot determine what lies beneath carpets, vinyl and other hard floor coverings (tiles, engineered flooring etc. Therefore, we highly recommend that all parties hold comprehensive documentation on the property, including keeping the property file up to date for claims for damage, repairs undertaken, alterations and improvements etc.

Risknet Ltd uses methodologies to gather an appropriate number of elevations designed to provide a comprehensive overview of the floor levels and variations within specific rooms and the dwelling as a whole. By no means is the methodology fool proof or is there any implied guarantee that the levels reported onsite are ‘all of the levels’ as this would be an impossible task for a number of reasons. To report on and achieve ‘all

the levels' within a dwelling, the dwelling would need to be stripped of all household furniture and personal effects, and the floors would need to be stripped of all floor coverings, along with all the kitchen and bathroom cabinetry and fixtures - clearly that scenario would be completely impractical. Therefore, our team endeavour to move as much furniture where practicable to achieve maximum access to the floor areas, however even with our best efforts, this is not viable, given common issues we face in relation to, for example, large beds in small rooms. Larger beds can obscure >60% of the entire floor space, coupled with other furniture, where there is no practical way to get to all the spaces we need to.

Flooring Compounds

Flooring compounds, fillets (used in transition zones) tiles, vinyl, engineered flooring and soft carpets and underlay.

Risknet estimates the thicknesses of floor coverings at the door junctions and flooring transition. The thickness of floor coverings can be estimated – however what is 'under to floor coverings' cannot. Adhesives and flooring levelling compounds can vary in thickness (as applied by the applicator) and have been found to be rather generous in some houses, we suspect to bring the levels within the MBIE tolerances. We therefore highly recommend clients thoroughly investigate the repairs and request the appropriate Record of Works (ROW) etc.

Fillets, used at the floor transition junctions, are put in place under the floor coverings to reduce the abrupt differences in heights, usually when carpet transitions to tiled and engineered floors. The levels recorded are therefore usually offset to allow for the gradient.

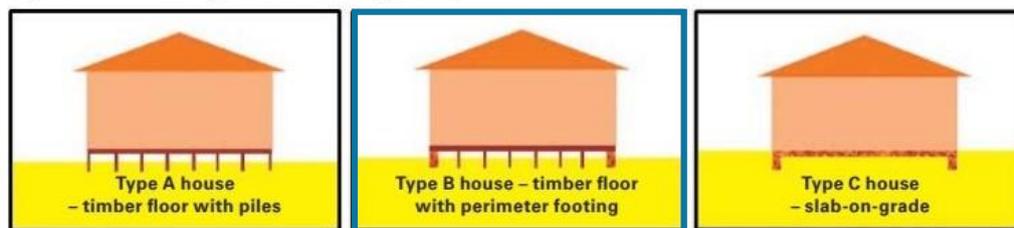
*The Dwelling was completely furnished, including beds and bedroom furniture, lounge chairs, desks and sideboards as well as whiteware. Levels are not recorded directly under large beds furniture items as this is not practical, nor do we move Fridges or other whiteware. Beds may be pushed to one side, and out from the walls, and this will be indicated on the floor plan. Levels may show differing High and Low points once the house is completely clear of furniture and personal items.

Ministry of Business Innovation and Employment (MBIE)

2.1 Typical dwelling foundation types

Three broad groups of dwellings have been used in the subsequent sections of this document to describe dwellings on the flat, as represented in Figure 2.1.

Figure 2.1: Dwelling foundation Types A, B and C



The Type B and C house foundations have been further subdivided into those supporting light- and medium-weight claddings (B1 and C1) and those supporting heavy claddings such as brick veneer (B2 and C2) (see Table 2.1).

Table 2.1: House foundation and floor types on the flat

Type A	Timber-framed suspended timber floor structures supported only on piles. Stucco, weatherboard or light texture-clad house.
Type B1	Timber-framed suspended timber floor structures with perimeter concrete foundation. Stucco, weatherboard or light texture-clad house.
Type B2	Timber-framed suspended timber floor structures with perimeter concrete foundation. Brick or concrete masonry exterior cladding (veneer).
Type C1	Timber-framed dwelling on concrete floor (slab-on-grade). Stucco, weatherboard or light texture-clad house.
Type C2	Timber-framed dwelling on concrete floor (slab-on-grade). Brick or concrete masonry exterior cladding (veneer).

Table 2.3: Indicator criteria for floor/foundation relevel or rebuild (see also Figure 2.2)

Column 1	Column 2	Column 3	Column 4	Column 5
Floor type	NO foundation relevel considered necessary	Foundation relevel indicated	Foundation rebuild indicated (Partial or full)	House rebuild may be indicated
Type B Timber-framed suspended timber floor structures with perimeter concrete foundation	The slope of the floor between any two points >2 m apart is <0.5% (1 in 200) [Note a] and The variation in level over the floor plan is <50 mm	The variation in floor level is >50 mm and <100 mm [Note b]	The variation in floor level is >100 mm [Note c] over the floor plan or The floor has stretched >20 mm [Note e]	The house has fully or partially collapsed off the piles and repair may be uneconomic This will relate to the degree of superstructure damage [Note f]
Type C Timber-framed dwelling on concrete floor	The slope of the floor between any two points >2 m apart is <0.5% (1 in 200) [Note a] and The variation in level over the floor plan is <50 mm and There are no cracks in ceramic floor tiles and There is no distress in vinyl floor coverings or carpet	The variation in floor level is >50 mm and <150 mm and Services are functioning	The variation in level over the floor plan is >150 mm or There is irreparable damage to buried services within the house footprint	This will relate to the degree of superstructure damage [Note f]

ADDRESS 147 King Street, Sydenham, Christchurch

The floor levels as recorded are 34mm across the floor plane – refer to the commentary contained within the report and reference the Floor Plan (CAD) supplied.

The Floor Slopes do in part exceed the thresholds above, however bear in mind this property is over 100 years old. The Higher points generally line up with bearer lines in the centre of rooms. The foundation is generally consistent around the perimeter, and aligns with properties of similar era. Also note the window sill in Bedroom 3 is relatively level, whereas the floor slopes.

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Sample Images: Note all images are recorded 'In-Situ'. Any adjustments for floor coverings are noted in the report and Floor Plan(s) where applicable.

*NOTE LOW -2mm, once adjusted becomes -8mm



-2mm, once adjusted becomes -8mm

(Floor covering est. (6mm))



Once adjusted becomes 16mm
(flooring 20mm)



Table 2.3 Explanation – to be read in conjunction with MBIE guidelines

- a. Floor and superstructure damage repair may still be required, even if these indicator limits are not exceeded. Floor slopes are normally established by recording levels at the intersections of grid lines spaced at approximately 2 m in both directions and at obvious high spots and low spots.
- b. For veneer cladding to Type B construction, there may be a need to rebuild the veneer.
- c. Pile packing in Type A and B construction is considered to be unstable at greater than 100 mm
- d. For most fully timber-framed (Type A) buildings, an overall stretch of less than about 50 mm can be pulled together again.
- e. Where perimeter concrete foundation walls are present (Type B construction), there is unlikely to be an opportunity to pull the foundation together again.
- f. This is an economic decision for any of construction Types A, B, or C on a particular property.
- g. Any abrupt changes in floor level may require at least local relevening, depending on the type of floor covering.
- h. Dwellings will have different degrees of damage, and in some cases the rebuilding of foundations may only be needed in the vicinity of the damage.
- i. More restrictive limits may be appropriate if there is concern those distortions in the floor from earthquake damage may cause superstructure damage over time.
For example:
damage to partitions (gravity load bearing and/or non-gravity load bearing) supported by a floor or foundation which undergoes angular distortion. Note: Damage limits applicable to specific types of partition are given in other Standards (e.g., AS 2870 Table 8.1, ISO 4356 Annex D Table 1). AS/NZS 1170.0 Table C1 also provides guidance on acceptable deflection limits for wall linings.
damage to external claddings leading to a contravention of the various Building Code performance requirements (e.g., E2).
- j. Foundation rebuilds are triggered by excessive differential settlements or excessive floor stretches, as covered in Table 2.3. However, the size of crack widths determines only whether or not a structural repair is required, and this indicator criterion is already covered in the last column of Table 2.2.
- k. **The indicator criteria provide guidance, they are not absolutes, as suggested by the dotted vertical lines between the columns.**
- l. The column title which states, “NO foundation relevel considered necessary” is intended to imply “– if all of the criteria below are met”. Accordingly, all of the criteria listed below the title, which are actually upper limits on slopes and levels below which the floor must be performing, must be satisfied (ie “AND” should be used). When a relevel or rebuild is triggered by any of the situations described in the columns to the right of column 2, the recommendation is to at least regain all of the maximums stated in column 2.

The above has been copied directly and not amended by Risknet

Important information – House built pre-2010 (pre-earthquake).

Earthquake related data, damage, repairs or other.

A Floor level survey and report is an important, crucial set of data for all properties. A Floor level survey is, as the term suggests, a comprehensive survey of the variations across a floor plane within a dwelling and/or outbuildings. A Postquake property assessment on the other hand is a Specialist Risknet report that places a higher weighting on earthquake related damage, repairs and documentation. Risknet offers a wide range of services to clients (homeowners, purchasers) to gather and report on EQ-related damage. The report's findings and conclusions are dependent on the scope of engagement, level of investigation completed, site visits, and of course the complexity (quantity and quality) of the data to be reviewed. Remember, we cannot 'see through' floors, floor coverings, walls, ceilings or any other elements, therefore we rely on data to be provided to make the most appropriate determination of the sequence of events – in some cases we are left with no option but to make assumptions in the absence of quality, verifiable evidence.

Christchurch City Council records.

Where the Christchurch City Council Building Consents and Property team have approved an application(s) for Building Consents at a property, and/or applied a Discretionary exemption(s), Risknet will point the focus and attention back on the Council for the data they received and approved. It is the Council's responsibility to check the application and ensure that the building works will comply, and in the case of full building consents, it becomes the Council's inspection team who assume the responsibility to check and sign off on the building works. Note, the Discretionary Exemptions program does not involve Council inspectors visiting building sites. Risknet encourages clients to seek all data related to Earthquake repairs (EQC, Private Insurers, builders and third parties, and of course Council consents).

We caution clients not to rush large financial decisions.

The opportunity to gather, review and challenge the veracity of property data must occur prior to a purchaser moving to a 'non-conditional' phase of a contract. Buyers looking to purchase properties via an Auction, for properties that were built prior to 2010, are cautioned against it, rather being encouraged to engage with Risknet well in advance of the auction date for our recommendations and advice which is all part of the property due diligence process.

Determining whether data is relevant – Risknet.

If anything stated within the following paragraph or included within this report is unclear or not specific in its intended explanation, contact Risknet immediately for clarification.

Any considerations, commentary, observations, opinions or other iterations of the same, are dependent on several factors including, the scope of engagement, information being gathered, made available, offered, or supplied to Risknet, whether written or orally. It is important to note that Risknet takes no responsibility whatsoever to investigate the veracity of any of the information provided by client(s) or any third parties including, but not limited to, estate agents, vendors, lawyers, builders, trades, Insurers, consultants, council, engineers, EQC/NHC etc.

Information sent to Risknet, for example, an email sent to Risknet Ltd *does not in any manner* suggest Risknet has opened or read the information contained. Therefore, it must be clearly stated that unless Risknet *specifically* references data within a report, or acknowledges via a meeting, it must be presumed that Risknet has not read, nor given any weighting to that information when compiling findings.

Risknet, by the nature of the industry, business and the complexity of the work involved, may receive thousands of documents per week, where the great majority were either not requested, or required as part of an assessment, therefore may be completely irrelevant to the project at hand.

Please consider the above points, and again, if at all unclear, the onus lies purely with you (the reader of this report) contacting Risknet *immediately* for clarification on any matters.

Terms and conditions of Engagement

The purpose of a property inspection is to work within the scope of engagement as agreed by the client.

Risknet Limited undertakes non-invasive observations only and makes recommendations based on these observations, considering limitations that may impede or restrict inspectors from performing certain tasks as well as agreed terms of reference with clients. Risknet Limited has no responsibility whatsoever as to the condition of the property, any repairs or maintenance undertaken on, or at the property, nor any express or implied responsibility as to the standard of work completed by others, in the past or future.

All comments, considerations, and recommendations are based solely on a non-invasive visual observation only, taking into account reasonable and safe access, relying upon the Assessors knowledge of, or familiarity of specific elements that make up a structure and apply that knowledge, taking into account various limitations that may impede the Inspections, as well as the Health and Safety Legislation, Risknet internal procedures, as well as applying where practicable, best practice and common sense to mitigate damage or injury to self, clients, and any neighbouring property.

A report must not be solely relied upon without the consideration of other forms of evidence that is generally available, including the current or previous vendors' knowledge, written reports, Council records, EQC and Private Insurance assessments, communications, and settlements, as well as contractors, professional consultants, painters and other trades, or any other third parties who have undertaken, or have knowledge of work undertaken at the specific location.

Unless stated within the report, Risknet has not reviewed any documentation whatsoever in relation to the address inspected, prior to or during the completion of this report. Data sent to, or passed onto Risknet does not in any way imply, unless stated within the report, that the data has been read, reviewed, or actioned in any manner. The report(s) produced by Risknet Limited have express limitations where, if new information is learned after the report has been produced and submitted to the client, unless this is determined by Risknet to pose a health and safety risk to any person or property, Risknet Limited will not be responsible for the passing over of any information to any person or organization.

Assessors are not to be regarded as experts in any specific field, rather observers with knowledge gained from practical knowledge and experiences learned and passed on by others, therefore recommendations shall be considered in context. Where recommendations have been suggested by assessors for additional specialist reports, these recommendations have been made in the best interests of the client. Specialist reports, for example in the case of a property deemed high risk in relation to weather tightness, may be referred to a weather tightness specialist consultant. Properties that present with pre-existing Earthquake related damage, damaged and not repaired, or repaired yet remain with damage, or any other iteration that warrants further investigation may be recommended to be referred to any number of relevant parties to ensure a process is followed.

Additionally, Risknet will not be responsible whatsoever if future inspections reveal defects not reported by Risknet Limited including, but not limited to,

the assessment of any apparent defect which may be subject to prevailing weather conditions,
information provided by the person, the employees or agents of the person requesting the report,
the accuracy, or relevance to an inspection,
the specific areas of expertise of the consultant specified in the report,
the apparent concealment of possible defects,

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the assessment of any apparent defect which may occur intermittently or usually occurs after regular uses,
and the presence of chattels, furnishings and personal effects or any other factor limiting the preparation of this report.

The client agrees to indemnify and hold harmless Risknet Ltd, its officers, directors, employees and all affiliates and their respective successors, assigns and any person, if any, who control any thereof, against any loss, liability, claim, damage and expense whatsoever including but not limited to, any and all expenses whatsoever reasonably incurred in investigating, preparing or defending, including all reasonable lawyer's fees, against any litigation commenced or threatened or any claim whatsoever arising out of or based upon any false representation or warranty of breach or failure by the undersigned to comply with any covenant or agreement made by the undersigned herein or in any other document furnished by the undersigned to any of the foregoing in connection with this contract.

In consideration of preparing and producing this report the client(s) hereby agrees to pay Risknet's invoiced amount within five (5) days of receipt. E&O accepted.

Signed



Stuart Fletcher
Director

Date: 26.10.2025