Determination 2025/041

An authority's decision to grant a building consent under section 72 for building work on land subject to the natural hazard of slippage

10 Poaka Place, Taradale, Napier

Summary
This determination considers an authority's decision to grant a building consent under section 72. The determination considers the natural hazard provisions, including whether the land is subject or likely to be subject to the natural hazard of slippage, and whether to grant a modification of clause B1 *Structure*.

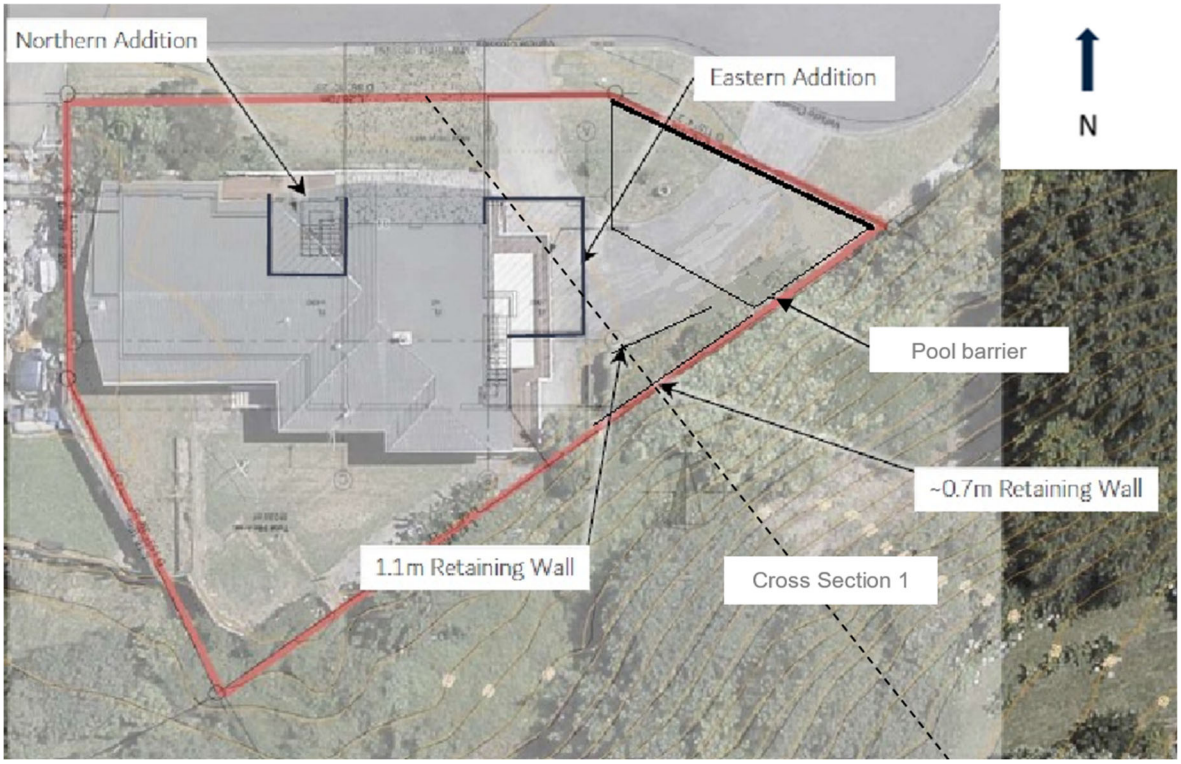

Figure 1: Site Plan (not to scale)

In this determination, unless otherwise stated, references to "sections" are to sections of the Building Act 2004 ("the Act") and references to "clauses" are to clauses in Schedule 1 ("the Building Code") of the Building Regulations 1992.

The Act and the Building Code are available at www.legislation.govt.nz. Information about the legislation, as well as past determinations, compliance documents (eg, Acceptable Solutions) and guidance issued by the Ministry, is available at www.building.govt.nz.

1. The matter to be determined

1.1. This is a determination made under due authorisation by me, Peta Hird, for and on behalf of the Chief Executive of the Ministry of Business, Innovation and Employment ("the Ministry").[1]

1.2. The parties to the determination are:

1.2.1. S and ZM Jarvis, the owners of the property who applied for this determination ("the owners")

1.2.2. Napier City Council, carrying out its duties as a territorial authority or building consent authority ("the authority").

1.3. The matter to be determined, in terms of section 177(1)(b) and (2)(a) of the Act, is the authority's decision to grant building consent BC240410 under section 72. The determination considers the natural hazard provisions of sections 71 to 74, including whether the land is subject or likely to be subject to the natural hazard of slippage as per section 71(3). It also considers whether to modify Clause B1 under section 188(3)(a).

1.4. I have not considered:

1.4.1. The appropriateness and implementation of the area-wide 'mass movement' layer in the authority's GIS[2], as raised by the owners, as determinations can only consider this in relation to the owners' property.

1.4.2. The in-ground swimming pool, which is being constructed under clause 23 *Tanks and Pools* of Schedule 1 of the Act and so is outside the scope of building work approved in the building consent.

2. The building work and background

2.1. Around August 2024, the owners applied for a building consent to carry out building work on their property. The application included ground testing and analysis

[1] The Building Act 2004, section 185(1)(a) provides the Chief Executive of the Ministry with the power to make determinations.

[2] Geographic Information System.

information obtained from a geotechnical engineer ("the owners' geotechnical engineer").

2.2. The owners' property is an elevated urban section that is relatively flat along the road frontage and adjacent to the dwelling and slopes down to the south and east. The owners' geotechnical engineer provided a geotechnical report, dated 23 May 2024, ("the geotechnical report") which described "to the east, south and southwest, the site is bounded by high [approximately 17m] and steep slopes ranging from approximately [25 to 35 degrees]".

2.3. The building consent application was for the following building work:

2.3.1. Alterations to an existing two-storey detached dwelling:

- Ground floor: construction of an extension on a new 100mm-thick concrete slab at the east end of the existing dwelling to create a media room and additional stairs to the upper level[3] ("the eastern extension"), reorientation of existing two-car garage with existing laundry/bathroom (on existing foundations), and installation of new entrance with stairs to the first floor.

- First floor: construction of a small extension to the kitchen to align external walls, general internal layout changes, and creation of a fourth bedroom.

2.3.2. Construction of a pool barrier for a new in-ground swimming pool in the eastern corner of the property[4]. As shown on the building consent plans, the barrier is made up of a concrete block wall along the northern boundary adjacent to the street and a proprietary aluminium pool fence and gate on the other three sides, including the southeastern side above the slope.

2.4. Two existing retaining walls of approximately 0.7 and 1.1m in height are situated between the dwelling and the south-eastern boundary. The building consent did not propose changes to these retaining walls apart from one wall possibly being reduced in height due to the eastern extension having a lower proposed finished floor level (FFL) of 0.5m compared to the existing ground level in this area. It is unknown when or how these walls were constructed, and the owners' geotechnical engineer has advised that these walls were not considered in their slope stability analysis.

2.5. The geotechnical report provided with the building consent application concerned the additions to the dwelling and noted that stability analysis for the ground in the

[3] The owners have indicated that building work carried out on the site differs from the original building consent plans and specifications, primarily removing these stairs. However, they did not indicate whether these changes were approved by way of an amendment or minor variation of the building consent, therefore I have not considered these changes in relation to the matter being determined.

[4] As noted in paragraph 1.4.2, the building work to install the swimming pool itself does not form part of the building consent and is therefore not relevant to the matter being determined.

area of the pool was outside the scope of the report. The report indicated, in summary:

2.5.1. Based on historic aerial photographs there is no evidence of slips at the property, although vegetation may have obscured some areas.

2.5.2. The eastern extension development area, based on the pre-development ground levels, "is directly underlain by significant fill and topsoil with depths ranging from 1.0m, 0.6m and 0.45m" (figure 2). Fill was also encountered in the area of the proposed pool barrier to the southeast of the immediate pool area[5] to 1.2m below ground level. Beneath this sandy silt was found to a depth of 1.8m before reaching "highly weathered rock".

2.5.3. Analysis of the slope stability outputs appended to the geotechnical report shows there are some soils on the slope that in prevailing/normal and transient/short-term conditions have the possibility of slippage based on the factor of safety being less than the commonly used thresholds of 1.5 and 1.2.[6]

2.5.4. Based on the analysis within the geotechnical report, the conclusion regarding slope stability states "the proposed eastern [extension] can be considered suitably stable in its proposed location provided that [the] foundations extend to the natural, very stiff to hard Sandy SILT soils".

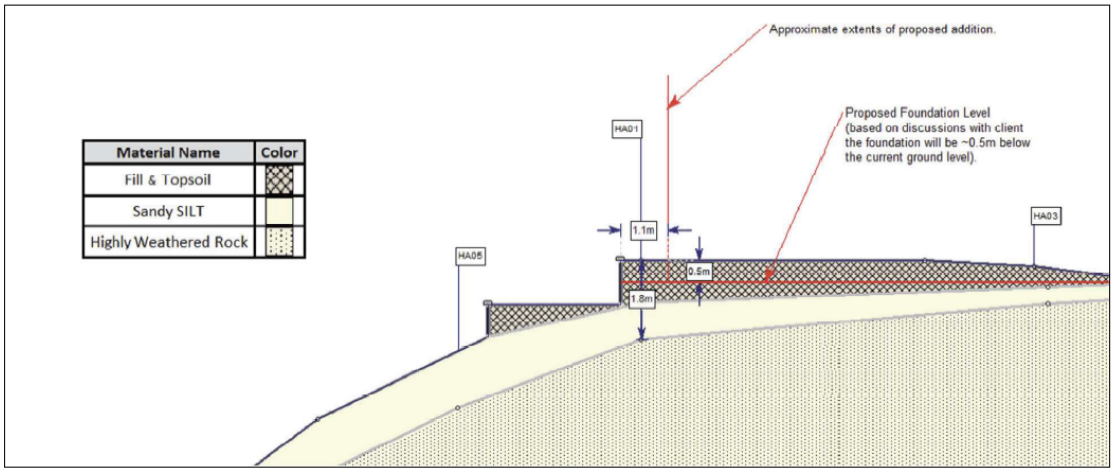

Figure 2: Cross section 1, as shown on figure 1 (not to scale)

[5] 'Immediate pool area' is defined by section 7 of the Act as "the land in or on which the pool is situated and so much of the surrounding area as is used for activities carried out in relation to or involving the pool".

[6] Factors of safety have previously been discussed in Determination 2025/011 *An authority's decision to grant a building consent under section 72 for building work adjacent to neighbouring land subject to the natural hazard of slippage* (14 March 2025) at [5.12] and as described in paragraph 10.3.2.1 of '*Slope Stability Geotechnical Guidance Series, Unit 1 – General Guidance*' (October 2024) published by the New Zealand Geotechnical Society, are used in geotechnical engineering to "define acceptable levels of safety for soil slopes".

2.6. On 27 August 2024, the authority sent the owners a request for further information (RFI), noting in relation to the natural hazard provisions:

> Territorial authority records indicate that this site is subject to, or likely to be subject to, a natural hazard. This is mapped as Mass Movement,[7] and would fall within the definition of Slippage under section 71 of the Building Act 2004.
>
> Unless evidence is provided to show that the land that the building work (dwelling) is connected to is not likely to be subject to the natural hazard, upon issuing of this building consent, a notification will be placed on the property title identifying this natural hazard and that a building consent has been issued subject to section 72 of the same Act. This will be completed when the RFI items within this letter have been addressed satisfactorily.
>
> Please have the Geotechnical Engineer provide further comment on this as part of the RFI reply.

2.7. On 10 September 2024, following a discussion over the phone, the authority emailed the owners' geotechnical engineer "requesting a covering statement that confirms, that in the opinion of the suitably qualified [geotechnical report] author, the land that the building is connected to (the property) is not subject to mass movement" to "collate the various references within the [geotechnical] report" so that a "section 73 notification [would] not be required".

2.8. On the same day, the owners' geotechnical engineer stated in a response to the authority that "in our professional opinion the proposed addition will not increase the risk / make worse, the natural hazard (mass movement) mapped over the site, nor will it add any additional risk to the property" as there is a suitable set back from the adjacent slopes and the design to remove soil and reduce the finished floor level of the eastern extension will likely offset any additional loads placed on the land.

2.9. Correspondence continued between the parties during September 2024, with the authority requesting further information and statements from the owners' geotechnical engineer in relation to the connection of the hazard to the proposed building work. The owners' geotechnical engineer was "not willing to say 'the entire site' is not subject to mass movement..." and the owners disputed the need for a notification on the title "as we have designed the house ... and minor extension [to be] ... set back enough from [the] boundary slope edge and have [geotechnical] stability analysis to support this" as well as "also removing a large volume of soil to decrease any load to [the] hill side".

2.10. During this correspondence, the owners requested a copy of the 1980 report[8] produced during subdivision of the wider area ("the 1980 report") and the basis for the 'mass movement' layer in the authority's GIS system. The findings in this report

[7] 'Mass movement' is a generic term for downslope movement of rock, soil and debris and includes processes such as creep, flow, slide and fall.

[8] 'Stability, Proposed Residential Subdivision O'Dowd Road, Taradale', 19 December 1980.

are not site-specific to the owners' property. However, in relation to the area of the owners' property:

2.10.1. based on the proposed plan, the owners' property would be primarily in areas the report describes as zones B and C, with a portion along the northern boundary being in zone G

2.10.2. the report summarised that zones B and C are areas that have slipped in the past "and because of their steepness could slip under 'normal' weather conditions" ('normal' referring to a 1978 report I have not seen) and therefore were not recommended for development

2.10.3. zone G was summarised as being suitable for development.

2.11. I note that in the authority's GIS aerials, the owners' property is shown further north than the proposed 1980 report plan (see figure 3). Consequently:

2.11.1. zone G covers the northern and western areas of the property, being the majority of the existing dwelling,

2.11.2. zone B covers the majority of the southeastern and eastern areas, including the location of the eastern extension and swimming pool barrier and,

2.11.3. zone C covers the southern corner, which is lawn and garden area.

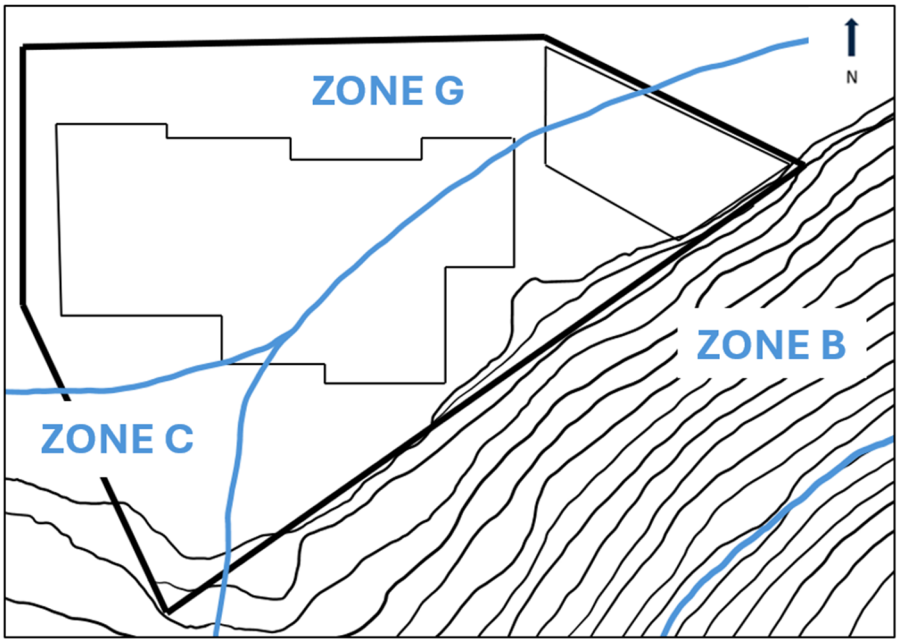

Figure 3: Site diagram with the 'mass movement' zones on the owners' property (not to scale)

2.12. In its processing record dated 7 October 2024, in relation to further correspondence from the owners, the authority noted that the owners agreed to the consent being granted under section 72 with the subsequent entry being recorded on the title, and stated:

> [The authority] is not satisfied on reasonable grounds that evidence has been provided from the [geotechnical engineer] to show that the land is not likely to be subject to [slippage].

2.13. On 8 October 2024 the authority granted the building consent and included as a condition:

> Section 71 – 73: As the building is on land subject to a natural hazard specifically (erosion / falling debris / subsidence / inundation / slippage)[9], the Building Consent Authority will on issue of the building consent, notify the consent to the Registrar-General of Land in accordance with section 73 of the [Act].

3. Submissions

The owners

3.1. The owners believe the building consent should not have been granted under section 72 but rather should have been granted in the ordinary way under section 49 without an entry on the title. They contest the likelihood of the natural hazard and believe adequate provision to protect the land and building work has been made.

3.2. In relation to section 71(1)(a) 'whether the land on which the building work will be carried out is subject to or likely to be subject to a natural hazard', the owners believe:

3.2.1. the 'mass movement' risk should not be applied to the area in which the proposed additions are located because, based on the 1980 report, this area has originally been identified as suitable for residential development, being "where soil movement is unlikely"

3.2.2. no other evidence indicates the property is subject to instability

3.2.3. there is no obvious historical evidence of land failure in the slope to the southeast of the property, even during significant recent weather events

3.2.4. based on the geotechnical engineer's stability models, "…there may be some shallow failures of overlying soils and weak material on the steeper slopes and potentially near the crest ... however larger failures are not expected to extend back into the area being developed". The geotechnical engineer's analysis:

[9] The authority did not include the condition required under section 73 on the prescribed building consent form issued to the owners to inform the owners the consent would be notified to the Registrar-General of Land. However, from the information provided to me, it is clear that the owners were made aware by the authority prior to the consent being issued that this would occur, and I consider the condition was missed off the prescribed form in error.

indicates the risk of failures is isolated to weak soils and material on the slopes (not extending back to the building addition and predominantly on the property to the south of the site)

3.2.5. The 'mass movement' zone identified by the authority is based on a report from 1980. Other information sources sighted by the owners "…shows that the proposed area [the owners] wish to develop is not subject [to slippage]. [The regional authority's] hazard maps ... indicate some mass movement in the [surrounding] areas but not [the owners' property]".[10]

3.2.6. The owners believe the existing dwelling and the proposed addition are within an area that, based on the 1980 report, is described as a zone "where soil movement is unlikely to occur" and that in comparing the 1980 zoning maps with aerial views, the property is more within this zone than originally specified.

3.2.7. Based on the property and proposed additions being "likely to lie within [the zone noted where soil movement is unlikely to occur]", the natural hazard provisions do not apply.

3.3. In relation to section 71(2)(a) 'whether adequate provision has been made to protect the land, building work and other property':

3.3.1. the geotechnical engineer has confirmed that the land on which the proposed additions are to be built is "suitably stable"

3.3.2. the proposed eastern extension includes the removal of up to 0.5m of soil which will assist in offsetting any additional building loads.

3.4. "The proposed additions [are] suitably set-back from the nearby steeper slopes and due to the removal of some soil and location of the additions, we [consider] the proposed works [will] not increase or worse[n] the risk [of the natural hazard]".

3.5. In a submission responding to a draft of this determination, the geotechnical engineer advised that the purpose of the analysis in their report was to investigate the stability of the land supporting the platforms for extensions to the existing dwelling, that this was a conservative analysis, and was not an assessment of the risk of shallow soil failures on the slopes.

3.6. The owners did not provide a comment on whether they believe the proposed building work constitutes a 'major alteration' for the purposes of section 71. They also did not provide comments or submissions in relation to the pool barrier following the draft determination which proposed the modification of B1.3.3(r) in relation to this building element.

[10] The other data referenced by the owners was the GNS Science NZ Landslide database and the Hawkes Bay Regional Council Hazard maps.

The authority

3.7. The authority maintains its decision to grant the building consent under section 72.

3.8. It submits, in summary:

3.8.1. The slippage hazard was identified on the authority's GIS system as a 'mass movement' layer. Based on this, it "... is satisfied that [the owners' property] is subject or likely to be subject to 1 or more natural hazards" and that it is of the view "... the land intimately connected with the building will be the entire [property]".

3.8.2. It is satisfied that the proposed building work is not likely to accelerate, worsen, or result in a natural hazard on the owners' land or any other property.

3.8.3. In relation to section 71(2)(a), the authority "…is not satisfied that adequate provision has been made to protect the land to which the building [work] is intimately connected to, as there does not appear to be any proposed building work that has the intention of addressing the natural hazard that the site is likely to be subject to, such as retaining type structures. [The authority] is of the opinion that the building work is protected, but not the land, and accordingly the building consent has been granted [under section 72 and conditioned as per section 73]".

3.9. The authority noted that the swimming pool was being installed under clause 23 of Schedule 1 of the Act, making it exempt from requiring a building consent. The building consent only included the barriers for the proposed pool.

4. Discussion

4.1. The matter being determined is the authority's decision to grant a building consent under section 72, subject to notice being given to the Registrar-General of Land under section 73(1)(c) in relation to the natural hazard of slippage.

Legislation

4.2. The legislative provisions relating to construction of buildings on land that is subject to natural hazards can be found in sections 71 to 74 of the Act. I note the purpose and history of the natural hazard provisions has previously been discussed in detail in Determination 2024/025.[11]

4.3. Section 71(1) provides that an authority must refuse to grant a building consent for the construction of a building, or major alterations to a building, on land that is

[11] Determination 2024/025 *An authority's decision to grant building consents under section 72* (25 June 2024) at [6.3] – [6.12].

subject to a natural hazard. However, section 71(2) creates exceptions where subsection (1) does not apply.

> **71 Building on land subject to natural hazards**
>
> (1) A building consent authority must refuse to grant a building consent for construction of a building, or major alterations to a building, if –
>
> (a) the land on which the building work is to be carried out is subject or is likely to be subject to 1 or more natural hazards; or
>
> (b) the building work is likely to accelerate, worsen, or result in a natural hazard on that land or any other property.
>
> (2) Subsection (1) does not apply if the building consent authority is satisfied that adequate provision has been or will be made to –
>
> (a) protect the land, building work, or other property referred to in that subsection from the natural hazard or hazards; or
>
> (b) restore any damage to that land or other property as a result of the building work.

4.4. The requirement of section 71(2)(a) for adequate provision to protect land, building work and other property requires specific consideration of each 'limb' by the authority when assessing an application for building consent. If adequate provision has been made for the purposes of section 71(2), then the building consent is granted in the normal way under section 49 (*without* section 73 condition relating to the natural hazard).

4.5. Where adequate provision under section 71(2) cannot be made, section 72 provides another way for building consent to be granted, even though the land on which the work is being carried out is subject to a natural hazard.

> **72 Building consent for building on land subject to natural hazards must be granted in certain cases**
>
> Despite section 71, a building consent authority that is a territorial authority must grant a building consent if the building consent authority considers that –
>
> (a) the building work to which an application for a building consent relates will not accelerate, worsen, or result in a natural hazard on the land on which the building work is to be carried out or any other property; and
>
> (b) the land is subject or is likely to be subject to 1 or more natural hazards; and
>
> (c) it is reasonable to grant a waiver or modification of the building code in respect of the natural hazard concerned.

4.6. Section 73 describes the conditions that must be included in a building consent when it is granted under section 72, including notification of the consent to the Registrar-General of Land.[12] Upon receiving the notification, the Registrar-General of Land must record on the property's record of title an entry under section 74(1)(b) confirming that a building consent has been granted under section 72 and the natural hazard to which it relates.

4.7. In this determination, the relevant natural hazard as described in section 71(3)(e) is 'slippage'.

4.8. As discussed in Determination 2024/025, one of the purposes of the entry on the record of title, as required by condition of section 73, is to make prospective purchasers of land aware that the authority would receive specific statutory immunity from liability in return for permission to undertake building work. However, it is important to note that the requirement to enter a notice on a property title should not be understood solely as a stand-alone measure to warn prospective land purchasers of hazard risks.

4.9. When a building consent is granted under section 72 and notification is made, the building consent authority is not liable in civil proceedings if the building or the land on which it is situated is damaged by a natural hazard. This protection applies under sections 392(2) and (3), which state that the building consent authority is not liable if it 'issued a building consent [under section 72] in the knowledge that the building for which the consent was issued, or the land on which the building was situated, was, or was likely to be, subject to damage arising, directly or indirectly, from a natural hazard' and 'the building to which the building consent relates suffers damage arising directly or indirectly from a natural hazard'.

Section 71: Major alteration

4.10. Section 71 states that the provisions only apply to the '…construction of a building, or major alterations to a building…'. As this determination is not in relation to a new building, I must first consider whether the building work proposed in the building consent is a 'major alteration' to confirm whether the natural hazard provisions apply.

4.11. While section 71 refers to 'major alterations', and the Act defines what it is to 'alter'[13], there is no definition for 'major' or 'major alterations' in the relevant sections of the Act. However, previous determinations have considered this meaning, most recently in 2025/025[14], and have considered that alterations must be considered in the context of and relative to the building and the site they relate to. That determination went on to state "that the terms 'major' and 'major

[12] The Surveyor-General and the Registrar of the Māori Land Court are not applicable in this case.

[13] Defined in section 7 as "in relation to a building, includes to rebuild, re-erect, repair, enlarge, and extend the building".

[14] Determination 2025/025 *An authority's decision to grant a building consent under section 72 and whether the building work was major alterations* (4 June 2025), at [4.7] – [4.10].

alterations' should be interpreted in light of the purpose of the natural hazard provisions and the purposes and principles of the Act".

4.12. I consider the physical size and breadth of the building work, and its complexity are relevant factors in assessing whether the building work meets the threshold for 'major alterations'. I have considered the size of the alteration compared to the existing building, the percentage of the existing building being altered, the extent of building elements being replaced, and the expanse of changes across the site. [15]

4.13. The increase in the floor area of the dwelling is 67m^2, largely made up of the extensions on the ground floor.

4.14. The percentage of the existing building being altered, and the extent of building elements being replaced is:

4.14.1. on the ground floor, all of the external joinery and approximately one-third of the internal wall framing is being replaced

4.14.2. on the first floor, all rooms are being altered in some way; all of the fixtures and all of the cladding is being replaced, 80% of external joinery units are being replaced, and approximately two-thirds of internal and external wall framing, including internal linings, are being replaced.

4.15. There is an increase in expanse of building work across the site. The building work includes extensions to the dwelling and addition of the pool area that increase the site coverage, particularly to the east towards the slope, and the pool barrier in the property's northeast corner.

4.16. Regarding the complexity of the building work, I note there has been need for a chartered professional engineer (CPEng) to provide speciality design work, design compliance pathways that do not use prescriptive Acceptable Solutions[16], and a need for specialty construction monitoring.

4.17. The CPEng has provided specific engineered design (SED) for the new foundations, including the in-situ concrete retaining wall and footing between the garage and media room, SED steel beams and posts, and SED portal frames to adequately support and transfer point loads from the first floor as well as providing bracing capacity. The CPEng has then noted the requirement for on-site monitoring of these elements by a CPEng to ensure slab steel is in place, and connections are completed accordingly.

4.18. In considering all these factors combined, I conclude the building work described in the building consent application meets the threshold for a 'major alteration' for the purposes of the natural hazard provisions.

[15] Where the listed percentages are less than 100%, these are approximate to the nearest whole number.
[16] Under section 19 of the Act, Acceptable Solutions are 'deemed to comply' and therefore, must be accepted by the building consent authority as establishing compliance with the Building Code.

Section 71(1)(a) – Likelihood and intimate connection

4.19. As stated in paragraph 4.3, section 71(1) requires that an authority must refuse to grant a building consent under the natural hazard provisions if the land on which the building work is to be carried out is subject or is likely to be subject to one or more natural hazards, unless subsection (2) is met.

4.20. As discussed in previous determinations 2025/011 and 2018/057[17], the High Court case *Auckland City Council v Logan*[18] considered the meaning of 'land' in relation to 'the land on which the building work is to take place'.[19] In relation to natural hazards, the Court stated that the meaning of 'land' can be different depending on the circumstances of the case, such as the land area of the property.[20] Regarding adequate protection, the court stated that "…the statutory obligation is not just to do something about the results of [a natural hazard] that has… occurred. It is to protect… the site itself where … the building and the site are **intimately connected**" [my emphasis]. I consider this to mean that for the purpose of section 71, the 'land' in question is that land which is 'intimately connected' with the building work.

4.21. I consider that the land intimately connected with the building work in this case is not limited to only the land directly supporting the building work. The size of the site is relatively small (in contrast to a lifestyle block for example), the building work is occurring across a large area of the property and is proximate to the slope (particularly the eastern extension and the swimming pool barrier). I am of the view the entire property is the 'land' in relation to the 'land on which the building work is to be carried out' in section 71(1)(a).

4.22. I next consider whether the land on which the building work is to be carried out, is subject or is likely to be subject to the natural hazard of slippage. In doing so I have considered the location of the building work relative to the hazard and the extent of the property affected by the hazard.

4.23. The primary risk is posed by the slope to the southeast of the owners' property. The slope is terraced by the existing two retaining walls in the east adjacent to the existing driveway, and a single retaining wall (height unknown) adjacent to the eastern corner of the existing building which runs the length of the southeastern boundary. It has been noted by the owners' geotechnical engineer that the construction of these retaining walls is unknown, and therefore in their report these walls were not taken into account in their analysis in relation to the proposed building work to the existing dwelling.

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[17] Determination 2025/011 *An authority's decision to grant a building consent under section 72 for building work adjacent to neighbouring land subject to the natural hazard of slippage* (20 February 2025), and Determination 2018/057 *Regarding the decision to grant a building consent subject to notification under section 73 for building work on land subject to natural hazards* (22 November 2018) at [6.2.14].

[18] *Auckland City Council v Logan* [1999] HC Auckland AP 77/99.

[19] The court was considering section 36 of the Building Act 1991, which is the equivalent of sections 71 to 73 of the current Act.

[20] Ibid, at [40].

4.24. Based on the evidence provided, there exists a broad set of factors which indicate there are risks of land instability on the property, being the historical hazard identification (see paragraph 2.10) which is the initial trigger for considering the natural hazard provisions, the steep slope geometry, the slope stability factors under certain conditions and unknown effectiveness on slope stability of the retaining walls. In summary:

4.24.1. The 1980 report raised concerns about slippage in weather events, and noted areas within and adjacent to the owners' property that are steeper slopes which could slip in some weather conditions and proposed buildings within 'suitable development zones' should be set back a minimum of five metres from "the [slopes] which generally define the edge of the [suitable for development] zone".

4.24.2. The characteristics of the slope, including height and steepness, when considered with the ground conditions determined from the on-site scala penetrometer tests, indicate a risk of slippage of the soils on the site without the consideration of the effects of the building work.

4.24.3. The slope stability outputs from the owners' geotechnical engineer indicate there are portions of the slope that under normal and elevated groundwater conditions are less than the commonly used factor of safety thresholds and therefore have a higher risk of slope failure[21]. The prevailing results indicate that the lower retaining wall and the section of the pool barrier along the southeast boundary may slip along with the topsoil and a portion of the underlying sandy silt soil.[22]

4.24.4. The presence of fill and topsoil on the property, comprising a mixture of sand and gravel and sandy silt, in the area of the existing driveway and ranging from 0.2m to the north, 0.8m to the top of the higher existing retaining wall on the south side of the driveway (the location of the southeast corner of the proposed eastern extension), and 1.2m to the east (the location of the proposed pool barrier)[23]. At the property boundary adjacent to the lower retaining wall in the east, there is 0.2m of topsoil. These residual soils are less cohesive and more prone to failure, particularly when they become saturated with water, compared to the hard or very stiff sandy silt and highly weathered rock which lies beneath these soils on the owners' property.

[21] I have not considered earthquake and effects from seismic events as these are not listed as natural hazards in section 71(3).

[22] Based on geotechnical slope stability output information and onsite soil tests.

[23] The geotechnical report noted that "no stability analysis for the proposed pool was requested and hence the stability of the ground in this area is outside the scope of this report". I take this to mean and include the stability of the land in relation to the pool barrier. However, as I have been provided with a scala penetrometer test result in this general location of the property, I have still considered this as evidence in my decision.

4.24.5. The proposed design of the eastern extension would remove 0.5m of fill in the locations of the northeast and southeast corners, and in doing so, will reduce the level of risk of slippage specifically to the ground supporting the extension.

4.25. I acknowledge there are comments to the opposite of the above, including that the site-specific geotechnical report is a conservative view of the land stability in relation to the proposed extensions to the dwelling only and the owners' statement that slippage did not occur in recent adverse weather events. However, I consider the report provides relevant evidence to support this determination.

4.26. In regard to proximity to the building work, I note:

4.26.1. the crest of the slope is located within the owners' property

4.26.2. the crest, measured from the existing retaining wall on the boundary, is located approximately 4m from the southeast corner of the existing building, with the proposed eastern extension reducing this to approximately 3.5m to the new internal staircase, and the new media room being approximately 4.5m from the boundary and appearing to be within 1m of the upper retaining wall.

4.26.3. A section of the pool barrier in the northeast corner of the property runs along the southeast boundary, parallel and adjacent to the crest and the retaining wall on this boundary.

4.27. In considering the evidence provided to me, I conclude that at least some areas of the land on which the building work is being carried out is likely to be undermined or destabilised due to land instability below or downslope from the building work. Therefore, I find that the land where the building work is proposed to be carried out is likely to be subject to the natural hazard of 'slippage' for the purposes of section 71(1)(a).

Section 71(1)(b)

4.28. Section 71(1)(b) requires consideration of whether the building work is likely to accelerate, worsen or result in a natural hazard "on that land or other property".

4.29. I consider the building work to the existing dwelling and the installation of the pool barrier, will not result in a natural hazard or accelerate or worsen the natural hazard. In reaching this conclusion I considered the scope of the building work with potential to accelerate, worsen or result in a natural hazard, such as storm water discharge from the new roof area and the additional loading, particularly of the eastern extension and pool barrier closest to the crest.

4.30. In relation to the storm water disposal, it is proposed to be collected by gutters and downpipes and disposed of through an existing kerb and channel outlet on the

northern side of the property so to not saturate the soils supporting the dwelling. In relation to the eastern extension, the removal of fill will reduce the level of risk of slippage to the ground supporting the extension, and the proposed product and construction method to install the pool barrier (on its own) does not significantly increase the loading on the soils along the southeast above the slope.

4.31. In considering the requirement of section 71(1)(b) I do not consider the proposed building work is likely to accelerate, worsen or result in a natural hazard on the owners' land or on other property. Given that conclusion, I will not consider other property further in relation to section 71(2)(a).

Section 71(2)(a) – Adequate provision to protect

4.32. Section 71(2)(a) gives the exceptions to section 71(1) when adequate provision has been or will be made to protect the land, building work and other property, and requires the authority to consider each 'limb' when assessing an application for building consent.[24] If adequate provision has been made to protect both the land and building work (and other property where necessary), the consent is granted in the ordinary way under section 49 without notice of the natural hazard under section 73. However, if for example adequate provision has been made to protect the building work but not the land intimately connected with the building work, this leads to the consent being granted under section 72.

Land

4.33. As discussed in paragraphs 4.21, I consider the 'land' in this case (being the land intimately connected to the building work) is the entirety of the owners' property and I have concluded, at paragraph 4.27 that at least some of the land is subject or likely to be subject to the natural hazard slippage.

4.34. Determination 2024/025 suggests that consideration must be given to the damage that would result from the natural hazard (either directly or indirectly) that gives rise to the need for protection from the hazard. The determination stated that the assessment requires consideration as to whether "the land on which the building [will be] situated… [is] likely to be, subject to damage arising, directly or indirectly, from [the] natural hazard", being the threshold set out in section 392(3). For slippage, damage would be the loss of soil/land down the slope and the possibility of undermining other parts of the land.

4.35. In this case, based on the owners' geotechnical engineer's slope stability analysis, the hazard occurring is likely to be loss of soils from the owners' land. This may result in the loss of or damage to the existing retaining walls and the section of pool barrier along the southeast boundary, and a reduction of the distance between the slope edge and the proposed building work.

[24] *Logan v Auckland City Council* CA243/99 [31]

4.36. Adequate provision to protect the land can be provided by demonstrating that damage will not occur to the land or specifying building work to reduce or mitigate against the effects and damage to the land from the natural hazard, being the soil loss and undermining of existing structures. In this case, the evidence provided does not demonstrate that damage to the land will not occur, nor do the building consent plans propose to install land protection measures.

4.37. In considering all these factors, I conclude adequate provision to protect the land has not been made. This on its own means that the building consent could not be issued under the ordinary way under section 49, but I must also consider whether adequate provision has been or would be made to protect the building work.

Building work

4.38. Adequate provision to protect relates to all building work that is specified in the building consent. The phrase has previously been discussed in Determination 2024/025, stating that protection is commonly accepted as compliance with the Building Code. However, it clarified this by stating:

> … it is essential for the authority to take into account the natural hazard concerned when assessing whether building work complies with the Building Code. This must be done in relation to each and every performance requirement which is applicable, not just those requirements which explicitly refer to the hazard.[25]

4.39. Therefore, to assess whether adequate provision has been made to protect all of the building work, it is relevant to consider compliance of the new eastern extension and the pool barrier with the performance criteria of clause B1 *Structure*, specifically:

> **B1.3.1** Buildings, building elements and site work shall have a low probability of rupturing, becoming unstable, losing equilibrium, or collapsing during construction or alteration and throughout their lives.
>
> **B1.3.3** Account shall be taken of all physical conditions likely to affect stability of buildings, building elements and sitework, including [in relation to the natural hazard]:
>
> (a) self-weight,
> …
> (e) water and other liquids,
> …
> (m) differential movement,
> …
> (r) removal of support.

[25] 2024/025, at paragraph 6.51.

4.40. I first consider the building work to the dwelling. The owners' geotechnical engineer has stated that they "consider that the proposed [eastern extension] is suitably set back from the nearby slopes which may pose a risk of significant [slippage]"and that the proposed extension "can be considered suitably stable in its proposed location provided that foundations extend to the natural, very stiff to hard sandy silt soils".

4.41. The geotechnical report indicated that good ground would be within 500mm of the proposed FFL of the eastern extension and noted "any uncertified fill beneath the foundation slab will need to be removed and replaced with an engineered fill placed and compacted in accordance [with earlier section of report]". The owners' geotechnical engineer also considers the reduction in FFL/ Finished Ground Level (FGL) to the eastern extension and surrounding ground "is likely to offset any additional loads that the dwelling may apply to the land" so to not make the hazard worse.

4.42. The structural engineering design includes additional beams and posts to support the upper level, foundation footings or pads to adequately distribute point loads through the building into the land, and a 500mm deep perimeter footing to the new eastern extension foundation slab which, based on the geotechnical report, would likely find good ground[26].

4.43. In light of the above, I consider these aspects of the design of the eastern extension to the dwelling addresses both the slope stability and soil integrity, ensuring that the extension does not exacerbate existing risks and is built on a stable foundation. I consider this part of the building work complies with the relevant performance criteria of clause B1 including taking account of the slippage hazard, and therefore adequate provision to protect the building work to the dwelling will be made.

4.44. However, in relation to the swimming pool barrier located in southeast along the boundary and at the top of the slope, the geotechnical on-site scala penetrometer investigations found fill-type soils to a depth of 1.2m. Based on the slope stability analyses in the geotechnical report, these soils are considered likely to slip. The plans show the barrier posts of the proprietary aluminium barrier embedded to a depth of only 700mm in concrete footings; meaning the barrier is founded in soil prone to slipping. The plans do not indicate any earthworks are to be carried out in this area to lower the ground level and remove the soil that is likely to slip should the hazard occur.

4.45. I consider this aspect of the building work (the southeast section of the pool barrier) does not comply with clause B1.3.1 when taking into account the requirement of clause B1.3.3(r) removal of support in relation to the natural hazard.

4.46. Therefore, the test in section 71(2)(a), in relation to the pool barrier, has not been met as the building consent does not demonstrate how adequate provision to

[26] NZS3604:2011 defines "good ground" as "any soil or rock capable of permanently withstanding an ultimate capacity of 300kPa…", with some exclusions.

protect the pool barrier will be made in relation to the slippage hazard. This finding means section 71(1) still applies, ie that the building consent must be refused.

4.47. However, section 72 provides for the granting of a building consent (despite section 71), even though the land on which the work is being carried out is subject to a natural hazard. In regard to building work, this can include granting a waiver or modification of the Building Code where it is reasonable to do so.

Section 72 waiver or modification

4.48. Granting a building consent under section 72 is subject to the following considerations:

> (a) the building work to which an application for a building consent relates will not accelerate, worsen, or result in a natural hazard on the land on which the building work is to be carried out or any other property; and
>
> (b) the land is subject or is likely to be subject to 1 or more natural hazards; and
>
> (c) it is reasonable to grant a waiver or modification of the building code in respect of the natural hazard concerned.

4.49. I have already concluded that the proposed building work is not likely to accelerate, worsen or result in a natural hazard (refer paragraph 4.28), and in relation to the section of pool barrier, this is due to the relatively light mass of the barrier along the southeast boundary and that it would not place any significant loads on the soils.

4.50. I have also already concluded that the land is subject to the natural hazard 'slippage' (refer paragraph 4.25). Therefore, I must now turn my mind to whether it is reasonable to grant a waiver or modification of the Building Code in respect of the natural hazard.

4.51. Section 188(3)(a) of the Act[27] states "[a] determination may incorporate waivers or modifications of the building code", and the determination may also include any conditions that a territorial authority is able to grant or impose (section 188(3)(b)).

4.52. I have found that the pool barrier along the southeast boundary does not comply with clause B1 when considering the natural hazard of slippage, because should the natural hazard occur, the ground support provided by the fill would be removed from around the footings of the barrier and the barrier would subsequently fail. As I have previously stated, the pool itself is outside the scope of the building consent and this determination.

[27] I note sections 188(3)(aa) and (3A) also relate to determinations and waivers and modifications in relation to residential swimming pools. However, while I must consider the consequences of the pool barrier failing in my assessment, I am not making an assessment for a waiver or modification in relation to section 162C or Building Code clause F9 *Means for restricting access to residential pools*.

4.53. Because the barrier would only fail to comply in the circumstance of the natural hazard occurring, I do not consider a waiver of the relevant performance criteria in clause B1 is appropriate. Therefore, I will consider whether a modification should be granted.

4.54. The Building Code is structured so that, in meeting all performance criteria, the building will comply with the objective and functional requirements of the particular clause. There are seven performance criteria within clause B1, relating to structural stability of buildings, building elements and site works.[28]

4.55. In the case of clause B1, in considering the performance criteria B1.3.1 and B1.3.2 for a building or building element, the factors listed in B1.3.3 and B1.3.4 must also be considered.

4.56. Clause B1.3.1 requires the barrier to have a low probability of rupturing, becoming unstable, losing equilibrium or collapsing throughout its life when taking into account the likelihood of removal of support (clause B1.3.3(r)). The natural hazard in this case is likely to remove the support to the barrier at some point throughout the barrier's life.

4.57. Therefore, I must consider whether it is appropriate to modify clause B1.3.3(r), which currently reads as:

> **B1.3.3** Account shall be taken of all physical conditions likely to affect the stability of buildings, building elements and sitework, including:
>
> **…**
>
> (r) removal of support.

4.58. In this case, I will consider whether it is reasonable to modify clause B1.3.3(r) to read as follows:

> **B1.3.3** Account shall be taken of all physical conditions likely to affect the stability of buildings, building elements … including: …
>
> (r) removal of support, except to the swimming pool barrier located within and parallel to the southeast allotment boundary arising from the event of a natural hazard of slippage occurring.

4.59. I consider it reasonable to make such a modification in light of the following:

4.59.1. The extent of the non-compliance is limited to the section of pool barrier running parallel to the southeast boundary. The sections of pool barrier along the street frontage and towards the dwelling would remain intact.

[28] As performance criteria B1.3.5, B1.3.6 and B1.3.7 relate to demolition and site works, these are not applicable to the construction of the section of pool barrier, which is new building work not requiring significant changes to the site.

4.59.2. Should failure of the barrier occur as a result of the natural hazard, the non-compliance would have a consequence of the pool barrier no longer complying with section 162C, which requires residential pools to have physical barriers to restrict access to the pool by unsupervised children under five years of age. The physical barrier would no longer be in place or connections/fixtures would be compromised in a small-scale failure and so would no longer be effective as a pool barrier. However, the owners would be aware of failure when it occurs and so be able to take reasonable steps to mitigate the risk (such as draining the pool).

4.59.3. The authority is also required to undertake three yearly inspections under section 162D and if there are concerns with non-compliance of pool provisions, it has enforcement powers it can use to require the owners to resolve the issue.

4.59.4. The objective of clause B1 is to safeguard people from injury and other property from physical damage. While failure would result in the barrier slipping or falling over the property boundary, this area is a slope covered with vegetation. There is a significant distance between the potential slippage area, the area of the potential barrier failure, and areas people commonly use and buildings on the adjacent property. Given the angle of the slope, it is unlikely this area will be developed.

4.59.5. The pool barrier would also cause little additional risk to the other property and people compared to the natural hazard itself, being a volume of soil moving down the slope.

4.59.6. A primary purpose of the Act is the safety of people using buildings.[29] I consider that failure of the barrier, which is a building, resulting from slippage would not itself endanger people. This does not take into consideration safety in relation to the pool. The location of the barrier along the southeast boundary is away from the dwelling and causes no risk it.

4.59.7. Use and occupancy of the immediate pool area is dependent on the time of year, where it will be used more during summer and less during colder/winter months. While there is some risk associated with the event of the natural hazard occurring, I consider this is an acceptable level given the purpose of the barrier as a pool barrier only; it is not a barrier in relation to the provisions of Building Code clause F4 *Safety from falling* and not required for people to be able to live in the dwelling or on the property.

4.60. Based on the above factors, I consider it is reasonable in this case to grant a modification of B1.3.3(r) under section 72(c), as it relates to the section of swimming pool barrier.

[29] Section 3(a)(i).

5. Conclusion

5.1. The building work for additions and alterations to an existing dwelling and the installation of a swimming pool barrier constitutes major alterations. I consider the land on which the building work is being carried out to be the entirety of the owners' property.

5.2. The land is likely to be subject to the natural hazard of slippage, and I consider adequate provision to protect the land has not been made. Also, adequate protection of the building work (specifically a section of the swimming pool barrier) has not been made, and so this building consent can only be granted under section 72 with a modification of the Building Code under section 72(c) and subject to notification under section 73.

5.3. I consider it reasonable to grant a modification under section 188(3) of clause B1.3.3(r) in respect of the pool barrier insofar as it relates to the natural hazard for the purpose of section 72(c).

5.4. This determination modifies the authority's decision to grant the building consent, by including the modification set out in paragraph 4.58. I leave it to the authority to record the modification on the property file along with this determination to alert future owners to the special nature of the pool barrier.

6. Decision

6.1. In accordance with section 188 of the Building Act 2004, I hereby modify the authority's decision to grant building consent BC240410 under section 72 to include the modification of B1.3.3(r) under section 72(c) as follows:

> B1.3.3 Account shall be taken of all physical conditions likely to affect the stability of buildings, building elements … including: …
>
> (r) removal of support, except to the swimming pool barrier located within and parallel to the southeast allotment boundary arising from the event of a natural hazard of slippage occurring.

Signed for and on behalf of the Chief Executive of the Ministry of Business, Innovation and Employment on 29 August 2025.

Peta Hird

Lead Determinations Specialist