



Determination 2014/031

Regarding the authority's refusal to issue an exemption under Schedule 1(k) for a proposed greenhouse at 2075 Motueka Valley Highway, Motueka

1. The matters to be determined

- 1.1 This is a determination under Part 3 Subpart 1 of the Building Act 2004¹ ("the Act") made under due authorisation by me, John Gardiner, Manager Determinations and Assurance, Ministry of Business, Innovation and Employment ("the Ministry"), for and on behalf of the Chief Executive of the Ministry.
- 1.2 The parties to the determination are:
 - The owner, B Rutledge, ("the applicant") acting through an agent
 - The Tasman District Council ("the authority"), carrying out its duties as a territorial authority or building consent authority
- 1.3 This determination arises from the authority's decision to refuse an exemption from the requirement to obtain a building consent for the erection of a greenhouse. The authority states they are satisfied that the proposed building work does not meet the criteria specified in Schedule 1(k)² of the Act.
- 1.4 The matter to be determined³ is therefore whether the authority correctly exercised its powers in refusing to issue an exemption under Schedule 1(k) of the Act.
- 1.5 In making my decision, I have considered the submissions of the parties and the other evidence in this matter.

2. The proposed building work and background

- 2.1 The proposed building work consists of the construction of a second hand greenhouse ("the greenhouse") on a rural site. The greenhouse measures 432m² and is constructed of steel frame work sheathed with polythene greenhouse film. The greenhouse will be constructed as set out in the drawings provided by the applicant. The greenhouse is shown in Figures 1 and 2 (plan and elevations).

¹ The Building Act, Building Code, compliance documents, past determinations and guidance documents issued by the Ministry are all available at www.dbh.govt.nz or by contacting the Ministry on 0800 242 243.

² References to paragraphs of Schedule 1 are to those that were current at the time of the authority's exercise of power of decision. Schedule 1 was subsequently amended on 28 November 2013

³ Under sections 177(1)(b) and 177(3)(c)

2.2 The applicant has stated the building work that needs to be completed to erect the greenhouse includes new footings for the steel frame posts, and the discharge of rain water from the roof to a holding tank.

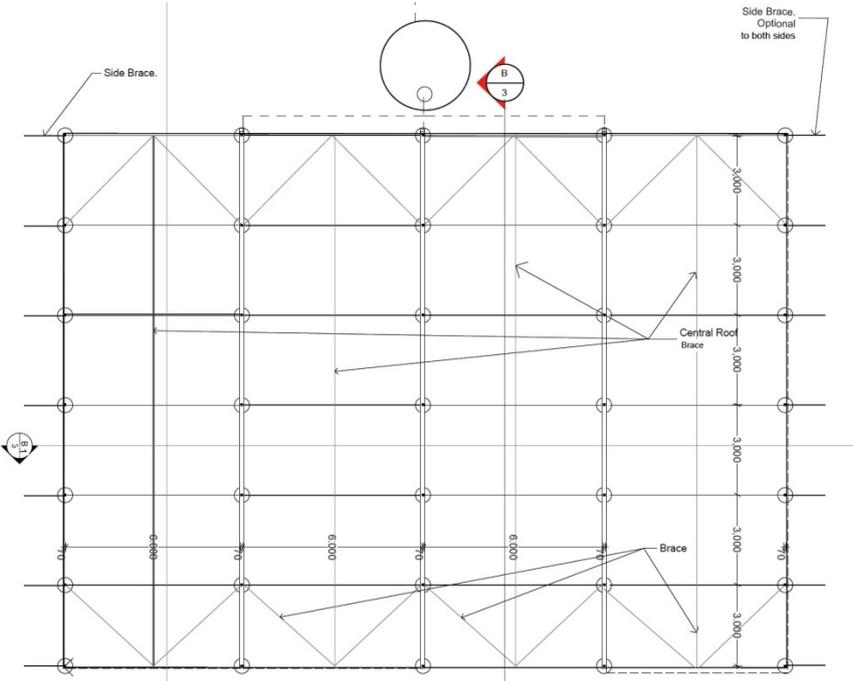


Figure 1: Floor plan (not to scale)

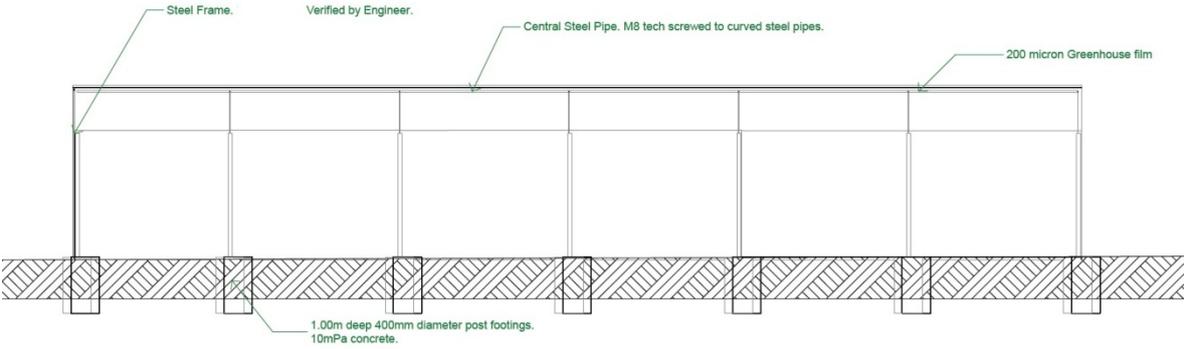


Figure 2: North and south elevations (not to scale)

2.3 The greenhouse provides protection for vegetables growing in cultivated ground. The produce grown will be sold at the farm gate. The applicant has stated the greenhouse will be occupied intermittently and by very few people.

2.4 On 17 June 2013 the applicant applied to the authority for an exemption under Schedule 1(k). The application stated:

Erection of [an] importance Level 1 greenhouse in a rural Lot under Schedule 1(k)

2.5 On 19 August 2013 the applicant wrote a letter to the authority regarding the handling of his application. I have not seen a copy of this letter.

2.6 In a letter to the applicant dated 20 August 2013, the authority replied, noting some general discussion points about Schedule 1(k) applications. The authority’s main points are quoted below:

Our caution around Schedule 1(k) stems from the fact that it is treated differently from the other clauses in the 1st Schedule – exempt building work. [The authority] is required to make a formal decision to exempt from building consent work that would normally require one

Once exemption is granted there is no further [authority] involvement and construction and completion is based on trust and assurances by the applicant that the building will be sound and fit for purpose, and if it fails the loss will be minor, manageable and have no unacceptable [effect] on occupants or adjoining property.

The act of making the exemption [under Schedule 1(k)] automatically incurs liability for the [authority]. . . a successful application for 1(k) exemption therefore implies that the quality and content of information presented for decision is such that, in addition to complete plans and specifications, all matters of risk and mitigation have clearly explained and addressed to a degree that satisfies [the authority]. When making the decision we are totally reliant on the entirety and veracity of information provided as there is on-site no follow up by the inspector to check construction compliance or accuracy of the information on which the ‘exemption’ is based

2.7 The authority also referred guidance from the Ministry on making a decision under Schedule 1(k) and listed the sort of information that it would require from the applicant in order to make that decision. The list was generic and not specific to the subject application.

2.8 Following this the applicant reapplied to the authority for an exemption under Schedule 1(k).

2.9 At some point about this time a firm of consulting engineers (“the engineers”) wrote an undated letter to the authority saying, in summary:

- The components of the greenhouse are ‘structurally intact but have a limited life remaining. There is some corrosion present and [the engineers] suggest that the components be cleaned and painted prior to erection.’
- ‘The structure is not habitable, extremely lightweight and only intended to be occupied intermittently by [a] few people tending produce.’
- ‘The structural strength of the existing components is considered adequate and failure is unlikely.’
- Under a serviceability limit state⁴ (27m/s) ‘the structural strength of the existing components is considered adequate and failure is unlikely. The structure is highly flexible and high deflections (in the order of 100mm or more) are to be expected from these loadings’
- ‘At ultimate limit state⁵ loadings (33m/s) there is a significant possibility of localised failure in some structural members. This will likely involve buckling of hoops; but may include a failure of the posts. In either situation repair is relatively straightforward. Alternatively the greenhouse film may fail by either bursting or tearing before this limit is reached ...’

2.10 The applicant’s engineers conclude by stating:

given that structure is lightweight, easily repaired and unlikely to be occupied during extreme wind events, it is our opinion that the structure may be considered low risk and presents little danger to people or property if reconstructed as proposed.

⁴ The serviceability limit state is the state at which a structure becomes unfit for its intended use through deformation, vibratory response, degradation, etc, and that affects the appearance or amenity of the building.

⁵ The ultimate limit state is the state at which the strength or ductility capacity of the structure is exceeded, when it cannot maintain equilibrium and becomes unstable, and is the limit beyond which the structural integrity of the building cannot be maintained

- 2.11 On 17 December 2013 the authority write a letter declining the application. The reasons were stated as follows:
1. The proposed greenhouse structure is to be used for commercial purposes, and therefore the [authority] will require a building consent for the erection of the greenhouse. The compliance to the New Zealand Building Code (NZBC) clause C 'Protection from Fire' will be addressed with the building consent application.
 2. The letter received from [the structural engineering company] states that there is a significant possibility of localised failure in some structural members. With the size of the structure – 432m² – we cannot accept this proposal under Schedule 1(k)
- 2.12 On 6 March 2014 the Ministry received an application for determination from the applicant.
- 2.13 On 20 March 2014 the Ministry sought clarification from the applicant's agent for the building plans provided with the application as these were unclear in several respects, and information was missing. An elevation included reference to '[verification] by engineer', the Ministry asked whether this meant the engineer would oversee the on-site work. The Ministry also sought clarification from the authority regarding the reasons for declining the Schedule 1(k) application.
- 2.14 On 20 March 2014 the applicant's agent responded and acknowledged that the plans were 'somewhat remiss in some aspects'; revised plans were provided (the plans are dated 13 May 2013 but showed no revision number) along with clarification of particular points not clear in the original application. The agent submitted that sufficient information has been provided to allow a decision to be made (under Schedule 1(k)), and that errors and discrepancies in the plans had been addressed. The reference to the verification by the engineer was in relation to the engineer's 'report' provided with the application.
- 2.15 On 21 March 2014 the applicant confirmed their opinion that the greenhouse is Importance Level 1. The applicant states that most of the time it will not be occupied by anyone; in the case of extreme weather no person will be working anywhere near the building and it will only be a small part of their operation therefore will be minimal economic consequences.
- 2.16 On 4 April 2014 the authority responded to the request for clarification from the Ministry sought on 20 March 2014. The response is detailed as part of their submission in paragraph 3.4.

3. The submissions

- 3.1 The applicant's agent provided a written submission with the application. The agent stated that the authority was incorrect in declining the application for an exemption under Schedule 1(k). The applicant believes the application was rejected 'for reasons which had nothing to do with the exemption, size of the building and by taking a single sentence out of a supporting document completely out of context'.
- 3.2 The applicant's agent noted that the engineers' report does state that there is significant possibility of localised failure under ultimate limit state, but the report also states that any failure will not present a danger to people or other property. The failures surmised by the engineer pose little risk to people in the building, if anyone was in the building during times of ultimate limit loads.

3.3 The applicant provided the following supporting documentation:

- The application to the authority for an exemption under Schedule 1(k).
- The letter from the authority regarding general comments on Schedule 1(k).
- The letter from the authority providing reasons why they declined the application.
- Supporting documentation from the structural engineer.
- Building plans of the greenhouse.

3.4 The authority provided a written response on 4 April 2014 to the Ministry's request for further clarification on the reasons for declining the Schedule 1(k) application, attaching three topographical maps of the site situated within the Motueka Valley region. The authority noted the following (in summary):

- Compliance with the Fire clauses was raised in respect of provisions for means of escape in the event of any emergency, not necessarily fire which is at the lower end of the risk scale for such a use.
- The commercial use does not preclude such a structure from being exempt work, but its size and intended use suggested it will be occupied by workers for significant lengths of time.
- Will there be an adequate level of occupant safety and is there potential for personal injury as a consequence of failure.
- The authority said:

...the building is located [in a river valley floor]. The valley walls rise steeply on both sides of the [valley] with accelerating winds from time to time over and between the hills that will pass through the site. ... buildings constructed in such a location would be designed to withstand at least a high wind zone loading (44m/s). It is therefore concluded that exposure to wind loads in excess of the 33m/s ULS are highly likely and the odds of structural failure are increased.
- Whether structural failure due to high wind load collapse will have a detrimental effect on occupants was not sufficiently clear in the applicant's documentation.

3.5 A draft determination was provided to the parties to comment on 13 May 2014. The draft determination found that:

- under schedule 1(k)(i) it was unlikely the greenhouse will be built in accordance with the Building Code in relation to Clause B2 Durability
- under schedule 1(k)(ii) it was unlikely to endanger people or any property on the same land or other property
- the authority would be in a position to issue an exemption under Schedule 1(k)(ii) once the plans were sufficiently clear.

The draft determination concluded the authority incorrectly exercised its powers in refusing the exemption under Schedule 1(k)(ii).

3.6 The applicant's agent provided a written submission dated 21 May 2014 which is summarised as follows:

- The decision in the draft determination did not consider the authority's exercise of its powers in making the decision to refuse the exemption. The agent had 'serious concerns' about the performance of the authority.
- The agent disputed how the Ministry could decide that the building fell within Schedule 1(k) but came to the view that the authority was correct to refuse the application for an exemption when the decision was based 'on primarily the same information'.
- The photographs⁶ provide 'crystal clear evidence of the construction, which ... is enough to determine the egress from and the layout of the building.' The agent sought guidance as to 'what is needed to bring the plans up to an acceptable quality'.
- The engineer's comment 'regarding the failure of the hoops/film means the proposed footings are adequate...'

3.7 The authority provided a second submission dated 26 May 2014 with the following comment:

- It was not accepted that the greenhouse is low risk in terms of potential for personal harm and the effect on other property.
- Clarification was sought on the reason(s) why it was considered the authority had incorrectly exercised its powers, and whether it was in relation to the reasons stated in the refusal (refer paragraph 2.11). The authority conceded that its reason for refusal relating to the Fire clauses was not worded correctly, 'but was as a reference document for egress provisions in any emergency'. The authority also noted its view regarding risk of harm and effect on other property is contrary to the conclusion in the draft based on the information it had at the time.
- The authority also noted its concern that '...it appears the draft determination is saying that the Building Act allows for situations where, given a low enough, perceived risk, non-compliance with the Building Code and structural failure is permissible'.

3.8 The applicant's agent also provided a written response to the applicant's submission dated 27 May 2014 stating:

- In relation to the wind zone, the applicant's structural engineer visited the site and made a decision 'I assume based on AS/NZS 1170⁷, [the authority] has not been to the site and made a decision based on an aerial photograph and NZS 3604:2011⁸'.
- The Motueka valley area has been hit by two severe wind events in the past decade and the area where the greenhouse is to be situated has not suffered severely from either.
- The applicant has not asked for the decision to be reversed; the decision should be confined to the exercise of the authority's duty. (In response I note that

⁶ Two unlabelled photographs were included on the drawings giving general views of an existing greenhouse.

⁷ AS/NZS 1170: Structural Design Actions – Part 0: 2002 General Principles

⁸ NZS 2304 2011: Timber-framed buildings

under section 188 of the Act I must ‘confirm, reverse, or modify the decision or exercise of a power’ to which the determination relates.)

3.9 The applicant reiterated his position in an email to the Ministry dated 27 May 2014.

3.10 I have taken account of the submissions received and have amended the determination as I consider to be appropriate.

4. Discussion

4.1 General

4.1.1 Under section 17 of the Act, all building work must comply with the building code to the extent required by the Act, whether or not a building consent is required in respect of that work. Section 41 sets out those cases in which consent is not required and includes ‘any building work described in Schedule 1’.

4.1.2 Schedule 1(k) is a discretionary section for the authority to determine whether to exempt proposed building work from the requirement to obtain a building consent in the circumstances specified. The section states:

A building consent is not required for the following building work:

(k) any other building work in respect of which the territorial authority (or, as the case requires, the regional authority) considers that a building consent is not necessary for the purposes of this Act because that building work—

(i) is unlikely to be carried out otherwise than in accordance with the building code; or

(ii) if carried out otherwise than in accordance with the building code, is unlikely to endanger people or any building, whether on the same land or on other property:

4.1.3 The Ministry has published a guidance document on exempt building work (“the guide”)⁹ that is now superseded but is relevant to the proposed greenhouse as the application for exemption was made prior to 28 November 2013. The guide states:

The primary purpose of Schedule 1 is to exempt building work that is minor and low risk in nature and where the benefits of requiring a building consent do not exceed associated compliance costs

4.1.4 The guide describes levels of building ‘importance’ set out in AS/NZS 1170.0 with level 1 buildings presenting a ‘much lower than normal risk to life and property (i.e. failure is not likely to endanger human life and there would only be small or moderate economic, social or environmental consequences)’. The guide also notes that such buildings will usually be ‘almost expendable’ minor, isolated, non-habitable, and not required as part of normal utility infrastructure (e.g. not having reticulated potable water and wastewater services). The guide provides some examples:

Examples of level 1 buildings in AS/NZS 1170

- Structures with a floor area of less than 30 square metres
- Farm buildings, isolated structures, towers in rural situations
- Fences, masts and walls

The guide considers low risk buildings are ‘appropriate in terms of what should be considered as qualifying for an exemption’ under Schedule 1(k).

4.1.5 As noted in Determination 2013/008 the tests in Schedule 1 paragraph (k)(i) and (ii) are separate tests and will often apply in quite different circumstances. In the event

⁹ A guide to building work that does not require building consent, Second edition, December 2010 (superseded)

the applicant does not stipulate that the exemption is to be considered under Schedule 1(k) (i) or (ii), I am of the view that an authority may determine whether paragraph (k)(i) or (k)(ii) best fits the proposed building work. Neither the applicant nor the authority has expressly stated that the application was lodged under Schedule 1 (k)(i) or (ii), and I have considered each of these below.

4.2 Schedule 1(k) exemption

- 4.2.1 When considering whether to grant an exemption under Schedule 1(k) an authority must turn its mind to the nature of the proposed work, the personnel who will be undertaking it, and the likelihood of it being completed other than in accordance with the Building Code: such an assessment is discussed in greater detail in Determination 2013/008¹⁰ and in the guide.
- 4.2.2 The guide suggests that the following matters be taken into account when considering a Schedule 1(k)(i) exemption:
- any substantial prior demonstration of competence in similar work
 - the complexity of the work relative to that competence
 - any independent quality assurance systems that will be applied.
- 4.2.3 There is no evidence of prior demonstration of competence in similar work and no information about any independent quality assurance systems. The greenhouse is second hand and requires a minimal amount of building work to construct. The applicant has stated that new footings for the posts and the discharge of roof water to the tank are the only new building work required. I do not consider this work to be complex.
- 4.2.4 In this case there was information before the authority that indicated the structure would be sufficiently durable if the components affected by corrosion were cleaned and painted, and that the structural strength of the components is 'adequate' and 'failure is unlikely' (refer paragraph 2.9). However, the engineer's recommendation regarding cleaning and painting is not included in the drawings.
- 4.2.5 In its reasons for refusal, the authority referred to the possibility of localised failure (refer paragraph 2.11). The authority expanded on this in its letter to the Ministry on 4 April 2014, advising that it disputes the wind loading used by the applicant's engineer is correct (refer paragraph 2.9) and that a higher wind loading is appropriate. If the structure is compromised I accept the statement from the applicant's engineer that the greenhouse film may burst or tear, and the hoops may buckle; and if the greenhouse film is compromised then the load on the structure will fall away.
- 4.2.6 The authority also referred to the C Clauses (Fire Safety) and later clarified this was in respect of egress in an emergency. I have discussed this in paragraph 4.3.6 below.

4.3 The likelihood of endangerment

- 4.3.1 I now consider the refusal to issue an exemption in respect of Schedule 1(k)(ii). Schedule 1(k)(ii) applies where the authority has some basis for believing the work will comply with the Building Code, although the grounds for that belief may be less than under Schedule 1(k)(i) because under (k)(ii) the authority can exempt the work

¹⁰ Determination 2013/008: Regarding the refusal to issue an exemption under Schedule 1(k) for a proposed farm implement shed

on the basis that even if the as-built work didn't comply it would not be likely to endanger people or other property.

- 4.3.2 Based on the information before it the authority was of the view that the 'significant possibility of localised failure in some structural members' and the size of the structure, meant that the authority could not issue an exemption. I take this to mean that the authority considered that such a failure would be likely to endanger people or another building if it was not meeting the performance requirements of the Building Code.
- 4.3.3 The Ministry's guidance suggests the following matters to be taken into account when considering the likelihood of endangerment under paragraph k(ii):
- the location of the building work
 - the proximity of the work to boundaries and other buildings
 - the level of risk to life and property (importance level)
- 4.3.4 The proposed greenhouse will be located in a rural area. It is between 9m and 12m metres from the eastern boundary of the property and, from the plans provided, does not appear to be located near other buildings.
- 4.3.5 The applicant submits that the greenhouse is classified as an Importance Level 1 building. I agree with this position. The greenhouse is an isolated lightweight structure. Although the floor area is significantly larger than the example discussed in paragraph 4.1.4 (30 m²) a specific floor area cannot by itself be a measure of the risk level without considering a building's construction and intended use. Level 1 buildings present a much lower than normal risk to life and property. The drawings state that a maximum of 6 people are intended to occupy the greenhouse.
- 4.3.6 The drawings (Drawing 1) say '2 Means of escape at east and west walls', and 'Each [domed] section has an opening, from the wall panels rolling up to the post height, meaning the greatest total open path length is about 15m.' The openings are not shown in the drawings. There are 4 'domed' sections along the east and west walls and it is therefore not clear where the '2 Means of escape' are located. However, I consider the greenhouse film could be broken through using garden implements, or similar, in the event that any occupants could not reach a formed opening to exit the greenhouse.
- 4.3.7 The building as a greenhouse has a low fire load, and the greenhouse film covering the roof and walls would melt away from any heat source should a fire break out; this would also ventilate the structure preventing the build-up of heat and the products of combustion. I do not agree with the authority's statement in its reasons for refusing the exemption that compliance with the Fire clauses needed to be specifically addressed.
- 4.3.8 I do not agree with the authority's view formed on the basis of size and its commercial use that the greenhouse will be occupied for significant times. The structure is primarily for plant cultivation. At some stages there may be an increased number of people working in the greenhouse but, as is the nature of that type of work, and as noted by the applicant's engineer, it is 'unlikely to be occupied during extreme wind events'.
- 4.3.9 The premise of an exemption issued under Schedule 1(k)(ii) is that if building work is 'carried out otherwise than in accordance with the building code', it is 'unlikely to endanger people or any building, whether on the same land or on other property. I

am of the view that in this particular case if the building work was carried out otherwise than in accordance with the Building Code it would be unlikely to endanger people or any building on the same land or on other property.

4.4 The documentation provided in support of the Schedule 1(k) exemption

- 4.4.1 An authority is entitled to seek some basis for being satisfied that the building work carried out under an exemption in Schedule 1(k) will comply with the Building Code; section 17 requires that all building work must comply with the Building Code irrespective of whether it is exempt under Schedule 1. As discussed in Determination 2013/008; while the documentation submitted in support of a Schedule 1(k) exemption may not be to the same standard as that provided for an application for a building consent, it should none-the-less be sufficiently clear to describe the intended work.
- 4.4.2 I do not consider that the plans provided either in the original application, or in response to clarification sought in paragraph 2.13, achieve this standard. The revised plans are little changed from the original and contain errors, discrepancies, and information that is optional in terms of what it intended to be built. Some text is too small to read easily at the intended A3 size. No reference is made to the presence or otherwise of adjacent buildings.
- 4.4.3 Key construction details, such as the junction of the gutter/post & roof members, are in effect 'block diagrams' that do not adequately describe what is to be built (detailed and annotated photographs of key junctions are likely to provide a clearer indication of what is intended to be built).

4.5 Conclusions

- 4.5.1 Notwithstanding the discussion in the preceding section, in my view the authority is likely to be in a position to issue a Schedule 1(k) exemption once adequate plans are provided that take onto account the comments contained herein, including the engineer's recommendations (refer paragraph 2.9).
- 4.5.2 Based on the information provided I consider insufficient information has been provided to show that, under Schedule 1(k)(i), it is unlikely the greenhouse will be built other than in accordance with the Building Code.

5. The decision

- 5.1 In accordance with section 188 of the Act, I hereby determine that the authority was correct to refuse the exemption for the proposed greenhouse under Schedule 1(k) and I confirm that decision.

Signed for and on behalf of the Chief Executive of the Ministry of Business, Innovation and Employment on 22 July 2014.

John Gardiner
Manager Determinations and Assurance

Appendix A

A.1 Relevant sections of the Act include:

17 All building work must comply with building code

All building work must comply with the building code to the extent required by this Act, whether or not a building consent is required in respect of that building work.

41 Building consent not required in certain cases

(1) Despite section 40, a building consent is not required in relation to—

(a) ...

(b) any building work described in Schedule 1; or

...

Schedule 1 Exempt building work

1 A building consent is not required for the following building work:

(k) any other building work in respect of which the territorial authority (or, as the case requires, the regional authority) considers that a building consent is not necessary for the purposes of this Act because that building work—

(i) is unlikely to be carried out otherwise than in accordance with the building code; or

(ii) if carried out otherwise than in accordance with the building code, is unlikely to endanger people or any building, whether on the same land or on other property:

A.2 Relevant section of AS/NZS 1107 include:

AS/NZS 1170.0:2002 Structural design actions

Part 0: General principles

Section 3 Annual probability of exceedance (for structures in New Zealand only)

3.3 IMPORTANCE LEVELS

The importance level of the structure shall be determined in accordance with its occupancy and use, as given in Tables 3.1 and 3.2. The Table describes, in general terms, five categories of structure and gives some examples of each. For those buildings not specifically mentioned, the designer will need to exercise judgement in assigning the appropriate level.

Structures that have multiple uses shall be assigned the highest importance level applicable for any of those uses. Where access to a structure is via another structure of a lower importance level, then the importance level of the access structure shall be designated the same as the structure itself.

AS/NZS 1170.0 Supplement 1:2002 Structural design actions

General principles—Commentary

The background of the importance levels is as follows:

(a) Importance level 1 is for structures that present a much lower than normal risk to life and property. Such structures will be minor, isolated, rarely contain people and not required as part of normal infrastructure. They are almost expendable.