

## What is an alternative solution?

An alternative solution is a design solution which differs from the acceptable solutions given in the approved documents - yet complies with the New Zealand Building Code. It can include a material, component or construction method that differs completely or partially from those described in the approved documents. Alternative solutions can be a minor variation from an acceptable solution or a radically different design and construction approach.

Before issuing a building consent, the council must be convinced that the proposal will meet the performance requirements of the building code. Consent applications must provide sufficient information to demonstrate that the building proposal meets the purposes and principles of the Building Act 2004 and the objectives, functional requirements and performance measures of the code.

## How can I meet building code requirements?

The Building Act 2004 states that all building work must comply with the building code. The simplest way to do this is to follow the commonly used verification methods and acceptable solutions contained in the compliance documents published by the Department of Building and Housing (DBH).

The compliance documents do not cover every building scenario. The building owner may want something that looks different, performs better, is cheaper to build, or has to overcome a site or planning problem. If this is the case, then you may need to use an alternative solution.

## What if I want to use part of an acceptable solution?

Where an approved document is cited to prove compliance with the building code, the council has to be satisfied that the design has been correctly applied.

When an approved document is not cited, the council must assess whether the proposed design complies with the building code. It is the applicant who must demonstrate compliance with the building code and the council may require further information.

An alternative solution may include part of a design solution contained in the approved documents.

## How can I convince the council that my alternative solution complies with the building code?

The following steps are recommended.

### 1. Scope the project.

Determine which components of the project are not covered by an acceptable solution or verification method, as contained in the DBH's compliance documents. These components will require an alternative solution. Be sure to state exactly what building code clauses and performances are being addressed.

### 2. Identify the relevant building code clauses.

Clause B2 "Durability" must always be included.

### 3. Identify the applicable performance criteria.

State quantitative and/or qualitative measures.

### 4. Establish the proof.

The proposed alternative solution must contain sufficient proof to show that the performance criteria of all identified clauses of the building code will be met.

## How to establish the proof

### Calculation or test methods.

These include valid calculations, simulations, models or test results.

### Comparison with an acceptable solution.

In many cases, acceptable solutions provide guidance for assessing the robustness of an alternative solution.

# Alternative solutions

## **Comparison with an 'accepted' product or design.**

State similarities if your design or product is similar to that identified in the compliance documents or is certified by Building Research Association of New Zealand or other accredited testing organisation.

## **Relevant DBH determinations.**

Determinations by the DBH are case-specific and have a limited application. They do provide guidance on interpretation. If you think a DBH determination has relevance to your project, attach the relevant determination to your application.

## **Proprietary products.**

Include manufacturer's technical data if it supports your proposal. Some products come with a current appraisal certificate that describes how compliance with the building code is achieved.

## **Proof of in-service history.**

Provide details if your proposed solution has been used in a similar situation and has met the building code requirements. Overseas evidence can also be used, but be mindful that New Zealand has specific climate and seismic considerations.

## **Proof of local environmental conditions.**

There may be features of your site that mean an alternative design is appropriate, such as the site being sheltered. This would need to be supported by meteorological evidence.

## **Collaborative expert support.**

Peer review of the proposed solution obtained from credible organisations may strengthen your case. For example, a producer statement from an engineer could be provided.

Please note on the BC application sheet the clauses to which your alternative solution applied and attach all relevant information.



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Brochure-003, 25 March 2010, V2