

## **Regulatory impact statement**

### **Streamlining building regulation: Proposed changes to the New Zealand Building Code**

#### **Agency Disclosure Statement**

This Regulatory Impact Statement has been prepared by the Department of Building and Housing (the Department). It confirms the cost/benefit impacts following finalisation of the proposed amendments to the Fire Safety and Signs clauses of the Building Code.

A series of options for the proposed amendments were presented in separate discussion documents. Following Cabinet approval, these documents were released and underwent a 12-week public consultation process, which closed on 26 November 2010. A total of 114 submissions were received for Fire Safety and 15 for Signs. These have since been analysed and final amendments made to the proposals.

Preliminary regulatory impact analysis was undertaken prior to public consultation; however, now that the proposals have been finalised, it is prudent for the Department to reassess the impacts these final amendments will have on the building and construction industry, building owners, and occupants.

Although it is difficult to quantify some of the costs involved with the two proposals, the Department advises that the following analysis outlines the costs, as well as the benefits and risks to those impacted by the change.

A review in 2007 recommended reform to improve and streamline the Building Code and its supporting documents. It is anticipated that the proposals will clarify the requirements, especially with respect to fire safety, which has the benefit of streamlining compliance, improving building quality, reducing the scope for disputes, and improving building occupant safety.

The Department confirms that the proposal is consistent with the Government Standard on Regulation.

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### ***Status quo and problem definition***

1. The New Zealand Building Code (Building Code) sets the basic performance criteria that all building work must meet. This is to ensure that buildings are safe do not endanger health, and have features that contribute to the physical independence and well-being of the people who use them.
2. The Department has a work programme to clarify and simplify the current Building Code requirements, to help streamline compliance and improve building quality. As part of this work, the Department is proposing to amend the current Fire Safety and Signs clauses of the Building Code.

#### *Fire Safety*

3. Industry feedback, Department experience, and findings of the Building Code review in 2007, highlighted problems with the current Fire Safety clauses, especially in relation to commercial and industrial buildings.
4. The main cause of the problem is that the basic performance criteria that designers rely on to ensure Building Code compliance is not provided in the Fire Safety clauses (C1–C4). The current performance requirements are non-specific and insufficiently quantified. While designers can infer what is required from the Building Code's supporting documents, mainly the Acceptable Solution, this approach is open to interpretation which makes it difficult for designers to demonstrate compliance.
5. Over time, this situation has led to the Acceptable Solution becoming, by proxy, the acceptance criteria for Building Code compliance. There has also been a tendency for designers to only work within the Acceptable Solution, as a way of guaranteeing compliance. This has restricted potential innovation and possible cost-saving benefits that other designs could produce.
6. The Building Act requires designs that do not conform to the Acceptable Solution are referred to the New Zealand Fire Service Design Review Unit (DRU). The purpose of the DRU is to review complex designs to ensure they comply with the means of escape and firefighter requirements in the Building Code. This process is often seen by designers as time consuming.
7. These problems have led to an inefficient consenting process and costly delays for developers, especially in the construction of large buildings. It has also placed additional pressure on the Department's Determinations function, when disputes arise. This has significant cost and resource implications, not only for the Department, but also the building owner, the Building Consent Authority, and the NZ Fire Service, as all parties engage legal and independent expert advice to prepare and present their cases.
8. Fire-related determinations, of which there have been 15 in the last five years, are mainly about the performance requirements and how they have been interpreted by the designer, the Building Consent Authority or the DRU. They generally involve fire designs that have used an Alternative Solution, and a dispute has occurred over whether the design meets performance requirements of the Building Code.

9. In the absence of any explicit performance requirements, there are widely varying views as to how to achieve compliance. Although the number of fire-related determinations averages five per year, they have an inherent complexity and are among the more time-consuming, resource-intensive and costly matters for the Department to resolve. Further, fire-related determinations do not always lead to industry acceptance, unlike other Building Code determinations, as they are so case-specific.
10. The lack of explicit performance requirements also leaves designers with limited options when designing commercial and industrial buildings. This means there are restricted opportunities for reducing the costs involved with this type of design work.

#### *Signs*

11. The wording of clause F8 (Signs), does not align with the Building Act 2004 or clause F6 (Visibility in Escape Routes). Therefore, minor regulatory change to the clause is required to ensure consistency of terminology within each clause of the Building Code.

#### **Objectives**

12. Simplifying Regulations in order to improve industry efficiencies and productivity, and reducing compliance costs is a key priority for Government. However, this needs to be balanced against the need for ensuring the construction of good quality buildings, and the maintenance of health and safety requirements for building owners and users. This is particularly important for these two Building Code clauses.

#### **Regulatory impact analysis**

13. In order to resolve the defined problems for the Fire Safety and Signs clauses, the Department considered three options: status quo remains, publishing guidance and regulatory amendment. Each of these options presents certain benefits, costs and risks to affected stakeholders, which are outlined in the following sections.

#### ***Fire Safety analysis***

##### *Status quo*

14. Retaining the status quo would mean that there are no implementation costs, such as educating the sector about the new requirements. However, this benefit does not outweigh the significant costs and risks associated with the current regime.
15. In the absence of specific performance requirements in the Building Code, decisions on whether a design is compliant are entirely opinion-based. This has led to inconsistent decision-making across the country, as well as delays to the consenting process when disputes arise. The cost of construction increases while waiting for decisions to be made.
16. The total cost of a complex fire-related determination is estimated to be in the region of \$300,000 for all parties (the Department, the Building Consent Authority, the building owner and/or the NZ Fire Service) to each engage legal and

independent expert advice. It can also take up to two years for a determination to be made. As soon as an application is made for a determination, work on-site should stop until the issue is resolved. In addition to the direct costs of obtaining a Determination, as outlined above, are the costs of holding land and other financing costs while the issue is resolved.

17. It is also resource intensive for the Department to manage complex determinations. While the applicant pays a nominal fee for lodging the application, there is no ability for the Department to recover the costs involved in engaging legal and independent expert advice.

*Publish guidance or update supporting documents*

18. The second option considered by the Department was to keep the Fire Safety clauses the same, but publish guidance on the explicit performance requirements, or update the current Acceptable Solution and Verification Method as a way of clarifying how compliance with the Building Code can be achieved.
19. Acceptable Solutions and Verification Methods provide one means of complying with the relevant clauses of the Building Code. Buildings constructed to the described method are automatically deemed to meet compliance.
20. Publishing guidance, or updating the Acceptable Solution and Verification Method is easier to revise when changes are required and would include up-to-date best practice information. However, this important piece of legislation would remain vague and difficult to interpret, and would be a voluntary practice only. There would be no guarantee or mechanism to ensure that that compliance is achieved.
21. The Department would have little confidence in the sector adopting guidance as de facto requirements, as evidenced by the ongoing sector debates about some fire-related determinations. Voluntary guidelines are not normally used in other regulatory areas to protect life and property.
22. There would also be costs incurred by the Department to publish and distribute the guidance documents, estimated to be approximately \$10,000 to \$15,000.
23. Further, this option would not necessarily reduce the number and complexity of fire-related determinations and the cost involved to all parties to resolve them.

*Amend Fire Safety Building Code Clauses (preferred option)*

*Benefits*

24. The Department is proposing to amend the current Fire Safety clauses (C1-C4) to be more specific about the performance requirements, and rename the clause Protection from Fire. Although the proposed clause will outline what needs to be achieved to ensure Building Code compliance, it will not prescribe how to achieve it.
25. The benefit of this approach is that it will open up innovation to create more tailored solutions, and enable more flexibility for designers to achieve compliance. The proposed clause and its supporting documents will include more specific performance-based requirements which will be less open to interpretation. This is expected to reduce the likelihood of disputes and the need for a determination.

26. The reduced likelihood of disputes, and consequent delays in completing developments, would reduce the costs of holding land and other financial costs for developers, as well as the direct costs to parties to resolve the dispute.
27. It is difficult to quantify the reduction in fire-related determination applications that could be expected from the proposal. The aim would be to receive zero applications; however, the Department would expect at the very least, fewer applications made and with far less complexity than is currently the case, meaning they would be easier to resolve and less resource-intensive to manage.
28. Removing uncertainty around fire safety requirements will assist in streamlining the design and consenting process. The proposal will ensure that designers and Building Consent Authorities know exactly what needs to be achieved.

#### *Cost implications*

29. There are cost implications associated with the proposal. With the increased scope available to designers and fire engineers to demonstrate compliance, the Department is confident that industry costs will decrease over time. However, there is also the potential that some building owners will choose to install additional fire protection measures. For example, a warehouse owner who, due to the size and contents of the warehouse, is not required to install fire protection measures can still choose to install a sprinkler system to protect the contents of the building, or the building itself.
30. While the Building Code is primarily aimed at new builds, owners who undertake alterations or apply for a change of use for their buildings, are required under the Building Act 2004 to incorporate a safe means of escape from a building which is "as near as reasonably practicable" to the current Building Code requirements.
31. However, this is not a new requirement or cost as a result of the proposed amendment, and there is provision in the Act to balance this requirement in proportion to the total construction costs. For example, if a building underwent a \$35,000 alteration, the building owner would not be expected to retrofit a fire safety feature that cost \$150,000.
32. As the proposed new clause gives designers more options to achieve compliance, the Department is confident that more cost-effective solutions are possible than is currently the case. Further, it includes objective criteria on which to base a decision of what is "as near as reasonably practicable". The current clauses of the Building Code do not contain these criteria, which mean that decisions are entirely opinion-based, and therefore, open to dispute.
33. There will also be implementation costs if the proposal is approved. The Department will incur costs for undertaking sector education and evaluating the effectiveness of the changes. A budget of approximately \$100,000 is anticipated for sector education in 2011/12, as well as up to \$25,000 for the evaluation in the 2012/13 financial year. These costs will be covered within the Department's baseline.
34. In addition to the Department's costs, Building Consent Authorities and fire engineers may also incur expenses to attend education seminars. However, the Department would expect this to be covered as part of their or their employee's ongoing professional development.

### *Risks*

35. There are some technical risks associated with the preferred option. However, the Department considers this risk to be low, and is confident that the proposed amendment will introduce the explicit performance requirements which are currently absent.
36. The current Fire Safety clauses have been the subject of several reactive amendments over the past few years. This has led to an overly conservative approach, that when recently tested, has shown that many of the assumptions made in the current C1-C4 clauses (and their supporting documents) were not supported by the analysis. Introducing performance-based requirements is expected to redress the balance.
37. There has been increasing pressure internationally to develop improved fire safety performance measures. The proposal has been tested using a number of different scenarios, with positive results. It has also been presented at a number of international conferences with favourable results. Canada and Australia are looking to implement a performance-based Building Code, and New Zealand is seen as a champion of positive change.
38. The Department has been signalling this change for some time, and is confident that those involved in complicated specific design for fire safety requirements are largely professional, qualified fire engineers, to whom the concepts in the proposal are not foreign. Any reluctance by the sector can be largely mitigated through the planned sector education. Some existing practitioners may, however, find that they direct their activities to fire design under the Acceptable Solutions, rather than undertake the more complex designs. It is anticipated that efficiencies will arise from that approach.
39. The proposed amendments have been socialised with a number of Building Consent Authorities during the development stage, and many authorities made separate submissions as part of the consultation process. The Department will tailor a separate education package for Building Consent Authorities which will be delivered before the implementation date.
40. The Department is confident that there are no risks to overall building quality, as the proposal does not reduce the existing building standards or safety requirements.

### ***Signs analysis***

41. No change is required to the fundamental objectives of the F8 (Signs) clause. However, the current wording is outdated and does not align with clause F6 (Visibility in Escape Routes). The Department is taking the opportunity that implementing the Protection from Fire presents, to seek approval to amend the clause to make it clearer and more consistent.
42. The regulatory changes proposed are to:
  - update reference to the sections of the Building Act 2004, requiring access for people with disabilities;
  - clarify the performance requirements through minor wording changes;

- define the term "clearly visible" as: "ensuring the nearest sign is visible under the worst likely conditions, and at the maximum distance from which it needs to be viewed, to a person who has sight that is not defective, or is corrected (for example, by an optical appliance)"; and
  - include a new Building Code performance requirement, that accessible routes be marked using the International Symbol of Access, as required by section 120 of the Building Act 2004.
43. The Department received 15 submissions on the proposed changes to the Signs clause, all of which supported the amendments.
44. While the status quo could remain, it would mean that the F8 clause would not align with other Building Code clauses and its supporting documents. Regulatory change will provide a clearer and more easily understood Building Code clause, which benefits Building Consent Authorities, building owners and designers by providing more clarity. It will also ensure that building occupants are better directed, especially during an emergency.
45. This is a low risk amendment that will not impose additional costs onto the sector. As a result of this change, the Department expects that the number of disputes between designers and Building Consent Authorities to reduce.

### ***Consultation***

41. The Protection from Fire clause was developed with the help of a small working group made up of highly qualified and well-respected fire engineers.
42. The following agencies were consulted prior to the release of the proposals for public consultation: the Treasury, Ministry of Economic Development, Ministry of Health, Ministry for the Environment, Department of Internal Affairs, NZ Fire Service, Ministry of Consumer Affairs, Office for Disability Issues, and the Housing New Zealand Corporation. These agencies have consulted on this paper and their feedback incorporated. The Department of Prime Minister and Cabinet has also been informed.
43. Following Cabinet approval, the Department ran a 12-week public consultation which closed on 26 November 2010. During this period, the Department ran a series of public seminars around the country to outline the proposals and reason for change.

### ***Conclusions and recommendations***

44. The Department is seeking to amend the Building Code for Fire Safety and Signs clauses, as outlined in Schedule 1 of the Building Regulations 1992. Following feedback from the industry, international research and results from the Building Code review in 2007, this is considered to be the preferred option for resolving the identified problems.

### ***Implementation***

45. From public consultation, it is apparent that there is a poor understanding of the Building Regulatory System as a whole. This is consistent with the findings of the Building Act Review and supports the need for these amendments to clarify the performance requirements in the Building Code. The Department intends to run a comprehensive sector education programme once the proposals are approved.
46. Further, the Department will introduce a transition period of approximately 12 months for Protection from Fire, and three months for Signs, to enable the sector to be educated on the amendments and to use the documents with confidence.
47. The amended Building Code clauses are planned to come into effect on 1 March 2012. During the transition period, new building consent applications received during the transition period can choose to comply with either, all of the existing clauses, or all of the new clauses for Protection from Fire, and Signs, but cannot “cherry pick” from both the existing and new clauses.

### ***Monitoring, evaluation and review***

48. These proposals came about as a result of the Building Code review undertaken in 2007. The Department has a close working relationship with key members and organisations within the sector, particularly with fire safety. Development of the proposals and analysis following public consultation has been undertaken in association with sector representatives, and these relationships will play a significant role in monitoring and evaluating the amendments to the Building Code once they are implemented.
49. Following sector education, the Department will continue to work with stakeholders to ensure the changes are embedded. An evaluation of the amendments and its acceptance by the sector, along with the usefulness of the educational programme, is planned for the 2012/13 financial year.
50. The Department will also monitor queries made to the Department regarding these clauses of the Building Code and whether any applications are made for a Determination related to signage and/or fire safety.