Hamilton City Council
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Feedback by

Hamilton City Council Staff

BUILDING CODE UPDATE 2021 AND BUILDING CODE OPERATING PROTOCOL

28 May 2021

It should be noted that the following feedback is from staff at Hamilton City Council and does not necessarily represent the views of the Council itself.

1.0 INTRODUCTION

1.1 Staff at Hamilton City Council would like to thank the Ministry of Business, Innovation and Employment for the opportunity to provide feedback to the Building Code Update 2021 and Building Code Operating Protocol.

1.2 We have completed the official feedback form provided by the Ministry of Business, Innovation and Employment - this is attached.

2.0 FURTHER INFORMATION AND OPPORTUNITY TO DISCUSS OUR FEEDBACK

2.1 Should the Ministry of Business, Innovation and Employment require clarification of the feedback provided, or additional information, please contact **Alister Arcus** (Principal Building Review Officer) on 07 838 6677, 022 177 5023, or email alister.arcus@hcc.govt.nz in the first instance.

2.2 Hamilton City Council staff would welcome the opportunity to discuss the content of our feedback with the Ministry of Business, Innovation and Employment in more detail.

Yours faithfully

Richard Briggs
CHIEF EXECUTIVE

BUILDING PERFORMANCE

Consultation submission form

Building Code update 2021

Building Code operating protocols

MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
HĪKINA WHAKATUTUKI

New Zealand Government

Contents

How to submit this form

This form is used to provide feedback on proposals found within the consultation documents:
› Building Code update 2021 – Issuing and amending acceptable solutions and verification methods
› Building Code operating protocols – Referencing standards and a tier framework to support standards in the Building Code system

When completing this submission form, please provide comments and reasons explaining your choices. Your feedback provides valuable information and informs decisions about the proposals.

You can submit this form by 5pm, Friday 28 May 2021 by:
› email: buildingfeedback@mbie.govt.nz, with subject line Building Code consultation 2021
› post to: Ministry of Business, Innovation and Employment, 15 Stout Street, Wellington 6011
or: Ministry of Business, Innovation and Employment, PO Box 1473, Wellington 6140

Your feedback will contribute to further development of the Building Code. It will also become official information, which means it may be requested under the Official Information Act 1982 (OIA).

The OIA specifies that information is to be made available upon request unless there are sufficient grounds for withholding it. If we receive a request, we cannot guarantee that feedback you provide us will not be made public. Any decision to withhold information requested under the OIA is reviewable by the Ombudsman.

Submitter information

MBIE would appreciate if you would provide some information about yourself. If you choose to provide information in the "About you" section below it will be used to help MBIE understand the impact of our proposals on different occupational groups. Any information you provide will be stored securely.

A. About you

Name:	Alister Arcus
Email address:	alister.arcus@hcc.govt.nz

B. Are you happy for MBIE to contact you if we have questions about your submission?

☒ Yes ☐ No

C. Are you making this submission on behalf of a business or organisation??

☒ Yes ☐ No

If yes, please tell us the title of your company/organisation.

Hamilton City Council

D. The best way to describe your role is:

☐ Architect

☐ Engineer (please specify below)

☒ BCA/Building Consent Officer

☐ Residential building owner

☐ Builder or tradesperson (please specify below)

☐ Commercial building owner

☐ Building product manufacturer or supplier (please specify the type of product below)

☐ Other (please specify below)

☐ Designer (please specify below)

☐ Prefer not to say

Please specify here.

Proposal 1. Energy efficiency for housing and small buildings

To make buildings warmer, drier, healthier and more energy efficient, we are considering options to increase the minimum insulation levels for roof, windows, walls and floors for new housing and small buildings. The options for minimum insulation levels vary across the country so that homes in the coldest parts of New Zealand will need more insulation than those in the warmest parts. As part of this, we are proposing to issue new editions of Acceptable Solution H1/AS1 and Verification Method H1/VM1 for housing and small buildings.

Questions for the consultation

1-1. Which option do you prefer? (Please select one)

☐ Status quo

☐ Option 1. Halfway to international standards

☒ Option 2. Comparable to international standards

☐ Option 3. Going further than international standards

Is there anything you would like to tell us about the reason(s) for your choice?

We assume that this will be subject to modification (over time) to take into account climate change, which may impact on future requirements.

Whilst we support Option 2 and separating New Zealand into 6 climate zones, it is unclear how future climate predictions have been incorporated into the proposed standards. Do the international standards benchmarked consider future climate and will the 6 climate zones be comparable to those identified in the document in 30-50 years' time?

1-2. For your preferred option, how quickly should this change come into effect?
(Please select one)

☐ 12 months ☒ 24 months ☐ 36 months or more ☐ Not sure/No preference

Is there anything you would like to tell us about the reason(s) for your choice?

This allows for industry to get up to speed without leaving it too long. Consideration could be given to allow for a speedier implementation for those climate zones which see little change from the current requirements and longer implementation for those which see the greatest change.

1-3. If there are factors we should consider to progressively phase in your preferred option, please tell us below.
These factors may include material availability or affordability, regional differences in the requirements, different building typologies or other considerations.

Is there the ability to carry out calculations/modelling within the proposed climate zones to account for local variations and microclimates?

Proposal 1: Energy efficiency for housing and small buildings

1-4. Do you support issuing the new editions of H1/AS1 and H1/VM1 as proposed?

H1/AS1: ☒ Yes, I support it ☐ No, I don't support it ☐ Not sure/no preference

H1/VM1: ☒ Yes, I support it ☐ No, I don't support it ☐ Not sure/no preference

Is there anything you would like to tell us about the reason(s) for your choice?

An increase is desirable to improve health outcomes and overall running costs of new housing stock. It is also more efficient and easier to implement to new builds than to retrofit.

1-5. What impacts would you expect on you or your business from the proposed options?
These impacts may be economic/financial, environmental, health and wellbeing, or other areas.

More education requirements for BCA staff to assess and inspect as well as our role as an educator to the public and onsite trades.

1-6. Is there any support that you or your business would need to implement the proposed changes if introduced?

☒ Yes ☐ No ☐ Not sure/no preference

Is there anything you would like to tell us about the reason(s) for your choice?

MBIE to provide an education program to the public and industry to 'gear up'.

Proposal 2. Energy efficiency for large buildings

To make buildings warmer, drier, healthier and more energy efficient, we are proposing to increase the minimum insulation levels for roof, windows, walls and floors for large buildings. The proposed minimum insulation levels will vary so that buildings in the coldest parts of New Zealand will need more insulation than those in the warmest parts. As part of this, we are proposing to issue a new Acceptable Solution H1/AS2 and Verification Method H1/VM2 for large buildings.

Questions for the consultation

2-1. Which option do you prefer? (Please select one)

☐ Status quo

☐ Option 1. 10% reduction in energy use for heating and cooling

☐ Option 2. 20% reduction in energy use for heating and cooling

☒ Option 3. 25% reduction in energy use for heating and cooling Is there anything you would like to tell us about the reason(s) for your choice?

Option 3 only just keeps pace with international requirements and as these have not changed since the 1990s, it is high time these were lifted significantly. Consideration could be given for a stepped increase over 2-3 years as an option, but we would prefer a single lift to 25%.

2-2. For your preferred option, how quickly should this change come into effect?
(Please select one)

☐ 12 months ☒ 24 months ☐ 36 months or more ☐ No preference

Is there anything you would like to tell us about the reason(s) for your choice?

This allows for industry to get up to speed without leaving it too long. Consideration could be given to allow for a speedier implementation for those climate zones which see little change from the current requirements and longer implementation for those which see the greatest change.

2-3. If there are factors we should consider to progressively phase in your preferred option, please tell us below.

These factors may include material availability or affordability, regional differences in the requirements, different building typologies or other considerations.

As above, stepped implementation could be considered, but not desirable.

2-4. Do you support issuing the new editions of H1/AS2 and H1/VM2 as proposed?

H1/AS2: ☒ Yes, I support it ☐ No, I don't support it ☐ Not sure/no preference

H1/VM2: ☒ Yes, I support it ☐ No, I don't support it ☐ Not sure/no preference

Is there anything you would like to tell us about the reason(s) for your choice?

To reduce of carbon emissions, it is imperative that energy usage is reduced to meet our international obligations, and to provide a more desirable interior environment.

2-5. What impacts would you expect on you or your business from the proposed options?
These impacts may be economic/financial, environmental, health and wellbeing, or other areas.

More education requirements for BCA staff to assess and inspect as well as our role as an educator to the public and onsite trades.

2-6. Is there any support that you or your business would need to implement the proposed changes if introduced?

☒ Yes ☐ No ☐ Not sure/no preference

Is there anything you would like to tell us about the reason(s) for your choice?

MBIE to provide an education program to the public and industry to 'gear up'.

Proposal 3. Energy efficiency for heating, ventilation, and air conditioning (HVAC) systems in commercial buildings

Currently, there is no acceptable solution or verification method issued for the energy efficiency of heating, ventilation and air conditioning (HVAC) systems in commercial buildings (Clause H1.3.6 of the Building Code). We are proposing to issue a new Verification Method H1/VM3 will establish a baseline and standardised procedures that will help building designers and building consent authorities demonstrate and verify the compliance of this clause.

Questions for the consultation

3-1. Do you support issuing the new edition of H1/VM3 as proposed?

☒ Yes, I support it ☐ No, I don't support it ☐ Not sure/no preference

Is there anything you would like to tell us about the reason(s) for your choice?

There is an ongoing lack of design consideration for energy efficiency for HVAC systems and the information being supplied to BCAs as part of the building consent process is very patchy.

3-2. Do you think the proposed Verification Method H1/VM3 covers all important aspects of energy efficiency of HVAC systems in commercial buildings?

☒ Yes ☒ No ☐ Not sure/no preference

If there are aspects that you think should be included, please tell us below.

Option 4 is a reasonable approach, but more work needs to be undertaken to establish a robust and comprehensive compliance pathway to ensure that energy efficient designs are submitted that adhere to international obligations.

3-3. What impacts would you expect on you or your business from the new H1/VM3?
These impacts may be economic/financial, environmental, health and wellbeing, or other areas.

More education requirements for BCA staff to assess and inspect as well as our role as an educator to the public and onsite trades.

3-4. Do you agree with the proposed transition time of 12 months for the new Verification Method H1/VM3 to take effect?

☒ Yes, it is about right ☐ No, it should be shorter (less than 12 months)

☐ No, it should be longer (24 months or more) ☐ Not sure/no preference

Is there anything you would like to tell us about the reason(s) for your choice?

Proposal 4. Natural light for higher-density housing

We are proposing to issue new acceptable solutions and verification methods for G7 Natural Light to adopt new compliance pathways for higher-density housing. The new pathways are more suitable for these types of buildings. As a consequence of the change, the scope of the existing documents are proposed to be limited.

Questions

4-1. Do you support issuing the new G7/AS1, G7/AS2, G7/VM2 as proposed?

G7/AS1: ☒ Yes, I support it ☐ No, I don't support it ☐ Not sure/no preference

G7/AS2: ☒ Yes, I support it ☐ No, I don't support it ☐ Not sure/no preference

G7/VM2: ☒ Yes, I support it ☐ No, I don't support it ☐ Not sure/no preference

Is there anything you would like to tell us about the reason(s) for your choice?

Using appropriate/best international standards is the best way to keep our Code relevant and up to standard.

4-2. What approach do you think we should take for G7/VM1?

☒ It should be revoked ☐ It should remain as is

☐ It should be amended ☐ Not sure/no preference

Is there anything you would like to tell us about the reason(s) for your choice?

4-3. What impacts would you expect on you or your business from the new editions of G7/AS1, G7/AS2, G7/VM1, and G7/VM2?

These impacts may be economic/financial, environmental, health and wellbeing, or other areas.

More education requirements for BCA staff to assess and inspect as well as our role as an educator to the public and onsite trades.

4-4. Do you agree with the proposed transition time of 12 months for the new G7/AS1, G7/AS2, G7/VM1, and G7/VM2 to take effect?

☒ Yes, it is about right ☐ No, it should be shorter (less than 12 months)

☐ No, it should be longer (24 months or more) ☐ Not sure/no preference

Is there anything you would like to tell us about the reason(s) for your choice?

Proposal 5. Weathertightness testing for higher-density housing

We are proposing to issue a new edition of E2/VM2 to reference BRANZ Evaluation Method EM7 Performance of mid-rise cladding systems (version 3, June 2020). This update version of EM7 is easier for test laboratories, cladding system suppliers, and building designers to use than the previous version. The new version does not significantly change the minimum performance requirements of the test method, and existing tested cladding systems will not need to be retested.

Questions for the consultation

5-1. Do you support issuing the new edition of E2/VM2 as proposed to cite BRANZ EM7 version 3?

☒ Yes, I support it ☐ No, I don't support it ☐ Not sure/no preference

Is there anything you would like to tell us about the reason(s) for your choice?

The mid-rise verification method is a welcome addition, as we are currently seeing an increase in buildings over 10m coming in for building consents.

5-2. What impacts would you expect on you or your business from the new edition of E2/VM2?

These impacts may be economic/financial, environmental, health and wellbeing, or other areas.

Greater and easier pathway to show compliance, which makes the consenting easier, and potentially cheaper, with less need for Façade Engineering and peer reviewing.

5-3. Do you agree with the proposed transition time of 12 months for the new Verification Method E2/VM2 to take effect?

☒ Yes, it is about right ☐ No, it should be shorter (less than 12 months)

☐ No, it should be longer (24 months or more) ☐ Not sure/no preference

Is there anything you would like to tell us about the reason(s) for your choice?

Proposal 6. Standards referenced in B1 Structure

We are proposing to amend referenced standards in the acceptable solutions and verification methods for clause B1 Structure. The amended references include new versions of AS/NZS 4671, AS/NZS 5131, AS/NZS 2327, the NZGS document "Field Description of Soil and Rock – Guideline for the field descriptions of soils and rocks in engineering purposes". Previous versions of these documents are currently referenced by the acceptable solutions and verification methods.

Questions for the consultation

6-1. Do you support the amendment of B1/AS1, B1/AS3 and B1/VM1 as proposed to include the following referenced standards and document?

AS/NZS 4671: 2019 Steel for the reinforcement of concrete:	☒ Yes, I support it ☐ No, I don't support it ☐ Not sure/no preference
AS/NZS 5131: 2016 Structural Steelwork – Fabrication and Erection:	☒ Yes, I support it ☐ No, I don't support it ☐ Not sure/no preference
AS/NZS 2327: 2017 Composite structures – Composite steel-concrete construction in buildings Amendment 1:	☒ Yes, I support it ☐ No, I don't support it ☐ Not sure/no preference
Field Description of Soil and Rock – Guideline for the field descriptions of soils and rocks in engineering purposes, New Zealand Geotechnical Society Inc., December 2005:	☒ Yes, I support it ☐ No, I don't support it ☐ Not sure/no preference

Is there anything you would like to tell us about the reason(s) for your choice?

Updating to the latest versions and standards is desirable to allow the latest knowledge to be included within the acceptable solutions and verification methods. It is important to support higher strength grades for reinforcing steel, for example, to reduce instances of non-compliant product being used in New Zealand buildings.

6-2. What impacts would you expect on you or your business from the referencing of these standards and document?

These impacts may be economic/financial, environmental, health and wellbeing, or other areas.

Minor. This will support the engineering designs submitted as part of a building consent.

6-3. Do you agree with the proposed transition time of 12 months for the new Acceptable Solutions B1/AS1 and B1/AS3 and Verification Method B1/VM1 to take effect?

☒ Yes, it is about right

☐ No, it should be shorter (less than 12 months)

☐ No, it should be longer (24 months or more)

☐ Not sure/no preference

Is there anything you would like to tell us about the reason(s) for your choice?

Proposal 7. Editorial changes to Acceptable Solution B1/AS1

We are proposing to amend text within Acceptable Solution B1/AS1 to make editorial changes in regards to geotechnical requirements. Editorial changes may include obvious errors in the text, typos, spelling mistakes, incorrect cross-references, changes in the formatting, minor clarifications of text with minor to no impact, or other items related to current document drafting practices.

Questions for the consultation

7-1. Do you support the amendment of B1/AS1 to address the editorial changes to geotechnical requirements as proposed?

☒ Yes, I support it ☐ No, I don't support it ☐ Not sure/no preference

Is there anything you would like to tell us about the reason(s) for your choice?

Building Code operating protocols

We are seeking feedback on two draft operating protocols that are intended to provide transparency and certainty around the work MBIE does as the building and construction regulator. The two operating protocols for this consultation are:

› Referencing standards in the Building Code system

› Tier framework to support standards in the Building Code system

Questions for the consultation

1. Do you agree with the proposed criteria for referencing a standard in the Building Code system?

These proposed criteria include: alignment to the Building Code, in scope, clear, specific, implementable in New Zealand and available.

☒ Yes, I support them ☐ No, I don't support them ☐ Not sure/no preference

Is there anything you would like to tell us about the reason(s) for your choice?

2. Do you agree with the proposed criteria for deciding the tier status of standards?

Risk severity:	☒ Yes, I agree with the criteria ☐ No, I don't agree ☐ Not sure/no preference
Contribution to the Building Code:	☒ Yes, I agree with the criteria ☐ No, I don't agree ☐ Not sure/no preference
Design focus:	☒ Yes, I agree with the criteria ☐ No, I don't agree ☐ Not sure/no preference

Is there anything you would like to tell us about the reason(s) for your choice?

Agree with the criteria for the proposed tier system and note that having Risk Severity as the top one is important.

3. Which standard(s) and their proposed tier status particularly impact you and why?

The main documents we use are, but not limited to, NZS3504, AS/NZS3500:1-4, NZS4121, and we assess various design criteria by the applicant, to see what standards that they have designed to, which are within Tier 1 such as AS/NZS1170: 0-3. These are used by staff to check for compliance with the New Zealand Building Act and Code as part of their day-to-day operations.

4. Is there anything else you would like to tell us about these protocols for the use of standards in the Building Code system?

We would recommend that NZS8500 be included in Tier 1 and would consider this high on the Risk Severity criteria.

New look for Building Code documents

1. Is there anything you would like to tell us about the new look of acceptable solution and verification methods?

We support proposed use of the compliance triangle at the beginning of each Code clause as it clearly highlights where the key documents sit within the whole Building Code system.

In addition, the main changes summarised at the beginning are a welcome addition. We also recommend placing the climate zones at the beginning of the document, as this is one of the first things to design/check. Placing this section later on will result in some 'to-ing and fro-ing' throughout the document.

Thank you

Thanks for your feedback, we really appreciate your insight because it helps us keep pace with modern construction methods, the needs of New Zealanders and ensure buildings are safe, warm, dry, healthy and durable.

To help us continue to improve our Building Code update programme, we would appreciate any suggestions or comments you may have on what's working and how we can do better.

Please leave your feedback below: