



01 December 2017

Consultation – Amendments to B1/VM1 and loop bar connection ban 2017

Compliance Solutions Team

Ministry of Business, Innovation and Employment«Line_2_suburb_or_RD»

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AMENDMENTS TO B1/VM AND LOOP BAR CONNECTION BAN 2017

Thank you for the extension to enable Engineering New Zealand to discuss the proposal in more detail with our Technical Societies.

Please find our Submission Form attached.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Brett Williams', written in a cursive style.

Brett Williams
Acting Chief Executive

Verification Method B1/VM1

Question 1 Do you have any comments on the options for B1/VM1? (page 7)

Please provide us with your comments and any suggested changes

Agree that amendment to B1/VM1 reflects current Standards and good industry practice.

Question 2 Do you agree with the proposed changes to the B1/VM1 references? (page 8)

Agree Disagree

Please provide us with your comments and any suggested changes

No comment.

Question 3 Do you agree with the proposed changes to Verification Method B1/VM1? (pages 9-15)

Agree Disagree

Please provide us with your comments and any suggested changes

No comment.

Proposed ban of loop bar connections

Question 4 Do you have any comments on the proposal or other options to stop the use of loop bar details in double-tee flooring? (pages 16-18)

Please provide us with your comments and any suggested changes

Public safety is engineers' first priority. We learn lessons from every major earthquake on how to improve systems, processes and the Building Code. Structural engineers had raised concerns about the use of loop bars before the Christchurch and Kaikōura earthquakes and their use was being phased out in practice. Superior alternative detailing elements for double-tee flooring systems are available and widely used.

Engineering New Zealand has worked with the New Zealand Society of Earthquake Engineering (NZSEE) and the Structural Engineering Society of New Zealand (SESOC) in responding to this proposal. We thank MBIE for giving us additional time to work together in preparing our submissions.

Engineering New Zealand supports the Government's proposal to ban loop bars for new buildings. However, we are mindful of the following:

1. Whole system considerations

Engineering New Zealand's view is that any system that has not performed adequately must be addressed holistically. The loop bar connection is a single detail in a building. There are many other elements in a buildings' design that may interact and contribute to poor performance.

Guidance is awaited to address wider issues related to the performance of precast concrete flooring systems.

2. Assessment of existing buildings

If loop bar connections are banned for new buildings, then that may lead to a reassessment of existing buildings with that detail. However, the loop bar connection may perform adequately in low-rise buildings with low ductile demands or if issues are remediated.

Guidance is required on seismic assessments and strengthening techniques for existing buildings with loop bar connections.

3. Effective remediation

Loop bar connections can be strengthened and supports added in existing buildings.

Guidance is required on the remediation of buildings with loop bar connections.

Engineering New Zealand understands that guidance is being prepared by MBIE on precast flooring systems. That guidance should address all three considerations expressed above provided it is timely, clear and comprehensive. We look forward to the opportunity to work alongside MBIE and our Technical Societies prior to publication of the final guidance in 2018.

Timing of B1/VM1 amendment

Question 5 Do you agree with the proposed B1/VM1 transition arrangements?
(page 19)

Agree Disagree

Please provide us with your comments and any suggested changes

Click here to enter text

Timing of the proposed ban

Question 6 Do you agree with the proposed timing if a ban is issued? (page 20)

Agree Disagree

Please provide us with your comments and any suggested changes

If a ban is to be introduced, a short transition period to 1 February 2018 is appropriate.