



SUBMISSION BUILDING CODE UPDATE CONSULTATION NOVEMBER 2019

Engineering New Zealand (formerly IPENZ) is New Zealand's peak professional body for engineers. We are New Zealand's strongest and most influential voice on engineering issues, with more than 21,000 members who want to help shape the public policy agenda and engineer better lives for New Zealanders.

The New Zealand Geotechnical Society Inc (NZGS) is a collaborating technical group of Engineering New Zealand. As our technical experts in the fields of Geotechnical Engineering and Engineering Geology we are informed by their advice on those aspects of the proposed changes to the Building Code. We support NZGS' submission to the Ministry of Business, Innovation & Employment (MBIE).

WE SUPPORT THE PROPOSED CHANGES TO THE BUILDING CODE PERTAINING TO CLAUSE B1 (STRUCTURE)

Engineering New Zealand supports the third instalment in the biannual Building Code consultation, noting that the proposed November 2019 update promotes robust foundation solutions for liquefaction-prone ground outside of the Canterbury region.

Proposed changes to the Building Code have an impact on the building and construction industry across New Zealand. To meet new requirements in the Building Code, the building and construction industry will need to have the capacity to meet new liquefaction-resilient foundation requirements. NZGS advise they believe the capacity to design and build these foundations exists across New Zealand, primarily in urban centres. Where expertise does not exist (say in remote regions), NZGS advise that the expertise and equipment can be temporally mobilised to meet demand. We support this position.

New foundation requirements will increase residential building design and construction costs, as well as the overall length of time to construct such works (where they are required). However, to quote from NZGS' submission 'such costs represent a sound financial and social investment when a significant seismic event occurs in the future'. NZGS consider the currently-proposed changes to the Building Code have the potential to decrease the cost of insurance on new builds and increase the availability of insurance. We consider this is a positive outcome for the building and construction industry.

In their consultation document, MBIE propose that the changes will come into effect on 28 November 2019, however the existing Definitions and Acceptable Solution B1/AS1 will remain in force, as if not amended, until 28 November 2021 (a period of two years). NZGS consider this arrangement appropriate and we also support the transition proposed.

WE RECOMMEND A REFERENCE TO FURTHER MBIE FOUNDATION GUIDANCE BE INCLUDED IN THE PROPOSED 'GOOD GROUND' DEFINITION

MBIE proposes to change the definition in the Building Code of 'good ground' (reference question 9a) so that the definition includes liquefaction and lateral spread, without specific reference to the Canterbury region only. We agree with this change to the current definition.

As the result of consultation with NZGS, we are in general agreement with the proposed amendment regarding foundations for houses but respectfully suggest that the following amended text is adopted:

COMMENT:

Foundations for houses built on ground that has the potential for liquefaction or lateral spread are outside the scope of B1/ AS1.

For houses built in areas that have the potential for liquefaction, a foundation solution following one of those provided for TC2 in the MBIE Guidance Document "Repairing and rebuilding houses affected by the Canterbury earthquakes" may be appropriate.

Engineering New Zealand believes the above reference to the MBIE Guidance Document will support the industry to design and consent appropriate and robust solutions for houses that are built upon ground which has the potential for liquefaction or lateral spread.

PROPOSED CHANGES TO CLAUSE B2 (DURABILITY) AND H1 (ENERGY EFFICIENCY)

Durability

There is a reference error in the Building Code pertaining to clause B2. We agree that MBIE should change the reference of the compliance schedule to avoid confusion.

Energy Efficiency

We have no comment currently on the proposed energy efficiency changes to H1 in the Building Code.

WE HAVE NO COMMENT ON THE CHANGES TO CLAUSE E2 (EXTERNAL MOISTURE)

We have no comment on the proposed changes to external moisture clause in the Building Code relating to the citation of the National Association of Steel Framed Housing new Acceptable Solution (E2/AS4). NZGS do not consider the proposed changes will have significant impact on the engineers under NZGS membership.