



8 November 2017

Hon Jenny Salesa
Minister for Building and Construction
Parliament Buildings
WELLINGTON

By email: j.salesa@ministers.govt.nz

Mālō e lelei Mrs Salesa

Congratulations on your new roles as Minister of Building and Construction and Associate Minister of Housing and Urban development.

We are New Zealand's professional body for engineers, with more than 20,000 members - and New Zealand's strongest and most influential voice on engineering issues.

This letter tells you who we are and what we do, and introduces some of the key engineering-related issues we see facing Aotearoa New Zealand.

We are very keen to work with you, particularly on the safety and quality issues our sector's grappling with, and would appreciate the chance to meet as soon as possible.

WE HAVE A NEW NAME: ENGINEERING NEW ZEALAND

You might remember us as IPENZ. On 1 October 2017, we changed our name to Engineering New Zealand. Our new name explains much more clearly who we are and what we stand for (the name "Institution of Professional Engineers New Zealand" remains our legal name).

We have undertaken a significant programme of transformation in the past two years. Our new name reflects our change in strategic direction, which is based on extensive feedback from our members. They want us to deliver greater credibility, recognition, influence and connection. It's our job to bring engineering to life.

OUR NEW MEMBERSHIP PATHWAY CATERS FOR MORE ENGINEERS

On 1 October, we also launched a new Membership Pathway. This Pathway creates a professional home for engineers from all disciplines at all stages of their careers. It creates a place for senior managers, engineering geologists, academics, technicians and technologists, as well as engineering professionals from rapidly growing fields like robotics and software engineering.

The new Pathway strengthens members' credibility by requiring them to commit every year to our Code of Ethical Conduct and to carry out on-going professional development. It also provides a framework to guide the development of young engineers in the first years of their career.

WE SUPPORT OCCUPATIONAL LICENCING FOR SAFETY-CRITICAL WORK

We strongly support the work MBIE has been doing towards task-based licensing for safety-critical work. This grew out of the Canterbury Earthquakes Royal Commission's recommendations.

We want to see any licensing regime extend to cover all safety-critical areas, not just the building-related seismic, structural and fire engineering areas that MBIE has identified. Other safety critical areas of engineering include, for example, water, food processing, heavy vehicle and transportation.

We consulted with MBIE while developing our new Membership Pathway, which is designed to complement and support any new occupational licensing regime for safety-critical engineering work. Our new Chartered Member class provides recognition of engineering competence in all fields of engineering to an equivalent internationally benchmarked level. We expect licensing would provide additional recognition of New Zealand-specific technical competence in key areas.

WE'RE RAISING THE BAR FOR ENGINEERS

We have several initiatives underway to lift the quality of engineering work across the system:

We've made changes in response to the collapse of the CTV building

Our complaints process is now more robust, transparent and fair

As a profession, engineers have set themselves standards. Our complaints process is about upholding those standards. It's focused on resolving complaints, appropriate accountability, quality improvement and learning.

If anyone raises a concern about a member, then we take this seriously.

We updated our Code of Ethical Conduct

As recommended by the Canterbury Earthquakes Royal Commission, we have revised our Code of Ethical Conduct in relation to reporting risks to public health and safety.

Our new Code of Ethical Conduct came into force on 1 July 2016. Engineers have a new obligation to report potential adverse consequences for people's health and safety and for the environment. This means that they must take action if they observe something of concern. And if an engineer suspects another engineer has significantly breached the Code, they must report this.

We await the outcomes of the Police investigation and the judicial review

We look forward to the outcome of the judicial review on whether we were right to halt our disciplinary process when Alan Reay resigned his membership. We have acted to make sure this situation could not happen again:

Engineers can no longer resign to avoid our disciplinary process

We have changed our rules so that engineers cannot resign to avoid a potential complaint.

Investigating the engineering design of six buildings in Masterton

Last year we launched an own-motion inquiry into the circumstances surrounding the engineering design and construction of six buildings in Masterton. Some engineering assessments of these buildings raise questions about their structural integrity.

Our responsibility is to investigate matters as they relate to individual engineers. But engineers are part of a system, and this is forming part of the inquiry. We expect the inquiry to report back next year and we will keep you updated.

Reconciling differing seismic assessments of the same building

We know it can be hard for building owners and the public to understand why the same building has multiple seismic assessments showing differing results. While engineering assessments have a degree of subjectivity, any differences between them should be reasonable and justified.

Engineering New Zealand has developed a programme that provides independent facilitation, so engineers can work together towards a narrower assessment rating. We are launching this in December.

Analysing the quality of structural engineering design work

We want to get a better understanding of quality issues in the structural design space. We are planning to carry out a systemic audit of engineering designs submitted to Building Consent Authorities as part of a Building Consent application. The audit is an information-gathering exercise to inform quality improvement initiatives and will be piloted in early 2018. We will keep you updated.

WE'RE SPEAKING UP FOR ENGINEERING PROFESSIONALS

Making expert voices heard

We have developed a list of experts from our technical groups who can provide media comment. We facilitated this in the aftermath of the Kaikoura earthquake with Peter Smith, President of the New Zealand Society of Earthquake Engineers and Paul Campbell, Society of Structural Engineers spokesperson. Our technical experts are always available to answer any technical question you might need advice on.

Taking a stand on engineering issues that matter to New Zealanders

We've asked our members what they see as the key issues facing New Zealand that an engineering perspective is important on. We're now working with a range of stakeholders to develop a report framing these issues, recommending how they can be addressed from an engineering perspective. This will be a high impact, accessible piece of thought leadership, focused on issues including water, climate change, and seismic resilience. It's due out in late 2018. We'll keep you updated.

WE WANT TO WORK CLOSELY WITH YOU ON THESE CRITICAL SAFETY ISSUES

Non-structural seismic restraints

This issue has recently had media coverage. There is a gap here, with engineers providing performance specifications that aren't always being met by contractors. We want to see much

greater cross-industry collaboration: engineers, architects, contractors, clients and regulators working together. The current situation is unacceptable and we want to work with MBIE on potential solutions in terms of construction monitoring.

Passive fire protection

Similarly, engineers provide performance specifications for passive fire protection and there can be a gap around construction monitoring. The Grenfell Tower tragedy has generated momentum for change in the fire-engineering space that we don't want to see lost. We support the MBIE Fire Programme work and want to see it continue.

Strengthening unreinforced masonry

Together with NZSEE and SESOC, we lobbied for the initiative taken by the last Government to reduce the risk posed by unreinforced masonry buildings in central New Zealand. Engineers are very conscious of the 39 people killed by masonry falling onto footpaths and roads in the February 2011 Christchurch earthquake. We will continue to advocate for action that increases New Zealand's seismic resilience, lowers risk and reduces the cost of recovery.

Durability of building materials

Clause B2 of the Building Code is significantly out of date. It means engineers can't verify the durability of key materials, including steel. We would like to discuss a way forward on this.

WE'RE WORKING TO CHANGE THE FACE OF ENGINEERING

With the current shortage of engineers, it's crucial to grow our pipeline. It's also crucial that engineers better represent and reflect the diverse New Zealand that they serve.

The Diversity [A]gender

We have joined forces with the New Zealand Institute of Architects and the Association of Consulting Engineers to create a programme called The Diversity [A]gender, which we will launch next year. It includes a target, a code, resources and a public campaign. We are currently recruiting champions and we would love to discuss the opportunity for you to be involved.

Attracting children and young people

We coordinate the interactive industry initiative "Week of Engineering", which this year saw more than 5000 people through our one-day public expos in Wellington, Auckland and Christchurch, and more than 700 students visiting engineering firms. Media coverage showed the programme's appeal to a diverse range of children.

Our Futureintech programme, which we are currently overhauling, connects young professionals as STEM Ambassadors with schools.

WE LOOK FORWARD TO MEETING YOU

Thank you for this opportunity to outline our work. We would very much like to meet in person to discuss these issues and anything else that would be helpful, including how we can best support you in your roles.

Every year in March, we hold a gathering of key engineers from around the country, and we would like to invite you to be the keynote speaker at our 2018 Forum on Friday 16 March.

Our engineers are ready to respond to any disaster – as they always have been. They were on the streets soon after midnight on 14 November 2016, in the same way they were after the Canterbury earthquakes. Their first priority is public safety and they are dedicated to their work. It's a privilege to represent them.

Yours sincerely



Craig Price
President



Susan Freeman-Greene
Chief Executive