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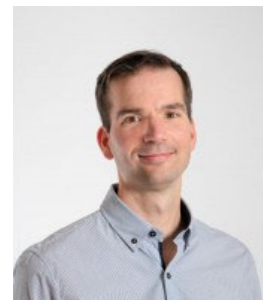
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OBITUARY FOR PETER SMITH

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From the President . . .

The past few months have been particularly active for both our profession and the wider earthquake engineering community. Since our last newsletter, significant earthquakes have occurred in Venezuela, Colombia and Japan. At the same time, there have been significant activity in Parliament and collaboration with the other technical societies.



The Building (Earthquake-prone Buildings) Amendment Bill has just had its Royal Assent over the weekend ([Building \(Earthquake-prone Buildings\) Amendment Bill](#)). Changes have been introduced during the parliamentary process but are minimum to the overall original intent of the Act. More information below. Looking ahead, 2027 is likely to involve a significant programme of industry guidance, training and implementation support. Members interested in contributing to these initiatives are encouraged to contact our Executive Officer, Amy Samuelu, exec@nzsee.org.nz

In parallel, the Emergency Management Bill has now been enacted, strengthening New Zealand's emergency management framework and response capability for natural hazards, including earthquakes. In addition, the Building Amendment Bill has been introduced, proposing changes to areas such as proportional liability and other matters affecting the construction sector. Further information is available through Engineering New Zealand's September 2026 advocacy update ([Advocacy update – September 2026 | Engineering NZ](#)) and a webinar next week.

Standards New Zealand has released Draft NZS 3604 and NZS 3404 for consultation. Together with SESOC, NZGS, Engineering New Zealand and TDS, NZSEE is preparing feedback on NZS 3604. We have also jointly published an interim practice note on bracing design for townhouses. Members are reminded that submissions on the draft standards close at **5:00 pm on 22 September 2026**.

NZSEE, together with SESOC, NZGS and Engineering New Zealand, has also conveyed members' feedback on **Why Seismic Design is So Hard** to MBIE for consideration. We look forward to continuing this collaborative engagement as we work collectively to improve the clarity, usability and effectiveness of our standards and guidance material. A new Technical Coordination Group for seismic loading is currently being established to continue the important work initiated by the Seismic Risk Working Group.

It is with great sadness that we acknowledge the passing of two outstanding contributors to our Society and profession: **Peter Smith** (NZSEE President 2016-2018 and Life Member) and **Bruce Shephard** (NZSEE President 1989-1991 and Life Member). Both made significant contributions to earthquake engineering and to NZSEE. On behalf of the Society, we extend our sincere condolences to their families, friends and colleagues.

These and many other updates are included in this edition of the newsletter. - Julian Benito





UPCOMING EVENTS

NON-STRUCTURAL ELEMENTS SEMINAR SERIES

Christchurch
24 November 2026

Dunedin
25 November 2026

Auckland
1 December 2026

Taupo
2 December 2026

Wellington
4 December 2026

<https://www.nzsee.org.nz/seismic-design-seminar/>

PCEE 2027

Christchurch
16-18 February 2027

<https://confer.eventsair.com/pcee-2027/>

19TH WORLD CONFERENCE ON EARTHQUAKE ENGINEERING (19WCEE)

Montreal, Canada
1 – 6 October 2028

<https://19wcee2028.com/>

Building (Earthquake-Prone Buildings) Amendment Bill passed in Parliament

On Saturday 19 September, the Building (Earthquake-Prone Buildings) Amendment Bill was passed unanimously by Parliament ([Building \(Earthquake-prone Buildings\) Amendment Bill](#)). After Royal Assent, Auckland, the Chatham Islands and the Upper North Island low seismic zones were removed from the earthquake-prone building system. The Bill is expected to come into force on 1 July 2027 and can be found here: [Building \(Earthquake-prone Buildings\) Amendment Bill | New Zealand Legislation](#). The final version includes several minor changes from the original bill:

- Refinement of the definition of urban centre.
- Allowing territorial authorities until 1 July 2027 to define strategic transport routes for identifying priority buildings within the EPB stock.
- Recognition of heritage status when considering deadline extensions.
- Clarification of fire safety and accessibility compliance requirements.
- Clarification of compliance requirements for change of use, and limiting it to the minimum required by law for buildings on the register, excluding register-only buildings.
- Requirement for EPB notices to be displayed on all Earthquake-Prone buildings.
- Clarification of building features and targeted retrofit definitions.

The Government has stated that 2,900 buildings in low-seismic regions will be removed from the earthquake-prone building system, with estimated remediation savings to owners of around \$8.2 billion.

NZSEE welcomes the renewed focus on the highest-risk buildings and system. The methodology is expected to be issued in the coming months, providing further detail and an opportunity to comment on how the legislation will be applied in practice.

We will provide further communications and updates in the coming weeks as matters progress to guide you through this process. 2027 will likely be a very busy year for discipline and society. If you would like to send us feedback and/or be part of the subcommittee leading this, please send an email to our Executive Officer, Amy Samuelu, exec@nzsee.org.nz.

Related news articles are listed below:

Radio New Zealand: [Thousands of NZ buildings no longer require earthquake strengthening | RNZ](#)

One News: [Thousands of buildings to be deemed no longer earthquake-prone](#)

New Zealand Herald: [Parliament passes earthquake-prone building reforms with \\$8.2b savings forecast - NZ Herald](#)

Stuff: [Thousands of buildings no longer deemed earthquake-prone after new law passes unanimously | Stuff](#)



Pacific Conference on Earthquake Engineering 2027



nzsee
NEW ZEALAND SOCIETY FOR
EARTHQUAKE ENGINEERING

**PACIFIC CONFERENCE ON
EARTHQUAKE ENGINEERING**

**PCEE
2027**

16 – 18 February 2027
Christchurch
New Zealand

Next year's Pacific Conference on Earthquake Engineering is taking shape, with a substantial submission of abstracts (approximately 370) with 50/50 representation between national and internationals submitters. Ke Jiang and Geoff Rodgers have been doing a great job in putting together a good line up of Keynote presenters with Ellen Rathje, Koichi Kusunoki and Ying Zhou already confirmed.

Registrations are now open, with pre-conference workshops and technical site tours scheduled for 15 February. Take advantage of the Earlybird rates by registering by 15 January 2027.

[PCEE 2027 | Official Conference Website](#)



Keynote Speakers



Koichi Kusunoki
The University of Tokyo

Koichi Kusunoki is a Professor and vice-director of the Earthquake Research Institute (ERI), the University of Tokyo. He has also served as the Secretary-General of the International Association for Earthquake Engineering since 2014. His research subjects are 1) Structural Behaviour of Reinforced Concrete, 2) Structural Health Monitoring, 3) Seismic Design, and 4) Field investigation in the earthquake-affected area.

He manages the building monitoring system at ERI, which monitors approximately 40 buildings in Japan, El Salvador, Peru, New Zealand, and Turkey. He got awards such as the “Excellence Award of Technical Design Competition of Architectural Institute of Japan” (Architectural Institute of Japan, AIJ), “Encouraging Prize” (AIJ), “Encouraging Prize” (Japan Concrete Institute), and AIJ Prize.



Ellen M. Rathje
University of Texas at Austin

Dr. Ellen M. Rathje is the Janet S. Cockrell Centennial Chair in Engineering in the Fariborz Maseeh Department of Civil, Architectural, and Environmental Engineering and a Senior Research Fellow at the Bureau of Economic Geology at the University of Texas at Austin. She is an expert in the areas of engineering seismology, seismic ground response, and earthquake-induced ground failure.

Dr. Rathje is the current President of the Earthquake Engineering Research Institute (EERI) and she is a founding member and previous Co-Chair of the Geotechnical Extreme Events Reconnaissance (GEER) Association. She leads the DesignSafe cyberinfrastructure that supports research in natural hazards engineering. Her awards include the 2022 Peck Lecture Award from the ASCE Geo-Institute and the 2018 William B. Joyner Lecture Award from the Seismological Society of America and EERI. She was elected the National Academy of Engineering in 2025.



Ying Zhou
Tongji University

Prof. Ying Zhou is a Professor at the College of Civil Engineering and Executive Director of State Key Laboratory of Disaster Reduction in Civil Engineering, Tongji University. The focus of her research is in the area of structural and earthquake engineering, particularly on understanding and improving the seismic performance of tall buildings under seismic loads. Recent research has examined the physics-informed data-driven earthquake response prediction for building structures.

Prof. Zhou's research was awarded as Distinguish Young Scholars of National Natural Science Foundation of China. She serves as the Director of International Joint Research Laboratory of Earthquake Engineering (ILEE). She is a founding editor-in-chief of Resilient Cities and Structures and editor of Engineering Structures.



Membership Fee Renewals

Membership renewal notices for the 2026–2027 year are being distributed by Engineering New Zealand.

We wish to inform you that membership fees have been reviewed and will not be adjusted for the upcoming year.

Please refer to the table below for the NZSEE membership rates:

	New Zealand (+GST)	Overseas*
Ordinary membership	\$160.00	NZ \$160.00
Young Professional	\$80.00	NZ \$80.00
Student	Complimentary	NZ \$80.00
Overseas Bulletin Add on	N/A	NZ \$175.00

* Overseas memberships do not include a physical Bulletin subscription. Members outside New Zealand who wish to receive a printed copy must purchase the Bulletin Add-on, which incurs an additional fee.

Corporate Affiliate

	New Zealand (+GST)	Overseas
Corporate affiliate subscription	\$300.00	NZ \$300.00

NZSEE Bulletin Subscription

	New Zealand (+GST)	Overseas
Bulletin Subscription	\$250.00	NZ \$475.00

If you have any questions regarding your membership, please don't hesitate to get in touch with Amy Samuelu, Executive Officer, exec@nzsee.org.nz.

Membership Support for Changing Circumstances

NZSEE recognises that members may at times experience periods of leave or significant life changes; for example: parental leave, financial hardship, or other extraordinary circumstances that make it difficult to maintain membership.

To support members during these times, the Management Committee can consider applications for complimentary membership. If you wish to apply, please email our Executive Officer, Amy Samuelu, at exec@nzsee.org.nz with a brief outline of your situation and any supporting documents.



Young Professionals Committee now live

We are pleased to announce that our Young Professionals Committee has been selected. Our selected committee members are:

- Theo Smith
- Alejandro Saenz Calad (Chair)
- Meini Zhao
- Yash Harideo

The Management Committee would like to thank these members for their volunteer support, and we look forward to working with you.

Interim Advice: Townhouse Bracing

Joint Technical Societies interim advice on bracing design for three storey residential structures

Three storey residential buildings are outside the scope of the Acceptable Solution cited standard NZS 3604:2011 and require specific engineering design. To assist engineers working on these buildings, the collaborating technical societies have prepared advice on specific design requirements and the use of P21-rated bracing elements in these structures.

This is placeholder interim advice pending further research and guidance development, as summarised in the Residential Design Roadmap (2026), with further work happening in this space.

The advisory can be found on the NZSEE [website](#)

Members involved in the design of multi-storey residential buildings are recommended to download this information.

NZSEE Events

Non-Structural Elements Seminar Series

We are delighted to invite you to a paid seminar to understand Non Structural Elements behaviour and design, together with the application of the new Code of Practice issued by BRANZ.

Location	Date	Time	Venue
Christchurch	24 Nov	1:00–4:00pm	University of Canterbury, John Britten 102 Conference foyer
Dunedin	25 Nov	1:00–4:00pm	WSP Dunedin, 197 Rattray Street
Auckland	1 Dec	9:00am–12:00pm	University of Auckland, Newmarket Campus
Taupo	2 Dec	1:00–4:00pm	WSP Taupo, 80 Tūwharetoa Street
Wellington	4 Dec	9:00am–12:00pm	Massey University, 50 Tasman Street, Mount Cook



Why attend

Non-structural elements are critical to life safety, building functionality and seismic resilience, yet their design and coordination remain challenging. Our understanding of their seismic performance has advanced significantly in recent years through new research, full-scale testing (at component, subassembly and building levels) and observations from recent earthquakes.

Alongside updated industry guidance, these developments are changing how non-structural elements should be designed, coordinated and reviewed. The seminar will explain what we have learnt, how it is reflected in the new Code of Practice, and what it means for current projects.

Seminar Content

This seminar brings together lessons from earthquake reconnaissance, research, full-scale static/dynamic testing and industry practice to provide practical guidance on the seismic performance of non-structural elements. Attendees will gain a practical understanding of current industry requirements, emerging developments and proven approaches for designing, coordinating and reviewing resilient, compliant and cost-effective solutions. The following topics will be covered during the seminar:

- Earthquake Reconnaissance and Real-World Performance
- Understanding the New Code of Practice
- Research, Testing and Emerging Knowledge
- Practical Design, Coordination and Documentation

[Register here](#)

Past Webinar:- NZSEE Otto Glogau Award winner Brendon Bradley presentation on Seismic hazard with deterministic maximum limits: Considerations in a New Zealand-specific context

Presented by: Brendon Bradley, University of Canterbury

This paper outlines the consideration of deterministic limits on maximum ground motion levels within seismic design codes and standards. The specific motivation is to outline the basis for the exclusion of such a limit in the 2024 draft Technical Specification for NZS1170.5 [1], despite the presence of such limits in NZS1170.5:2004 [2]. An overview of the historical consideration of so-called 'deterministic' and probabilistic seismic hazard analysis methods is provided, as well as how they have translated into contemporary seismic design codes and standards in New Zealand (NZ) and internationally. The fundamental issues with deterministic maximum limits are outlined through the use of examples in a NZ-specific context. The underlying reason 'well above average' ground-motion intensity levels (for a given earthquake scenario) are prevalent in regions of high seismicity is discussed, as well as other common misconceptions that lead to the use of deterministic limits to achieve apparently realistic design ground motion intensities. Finally, in the vein of the hazard-risk separation principle, sentiments are expressed for achieving economic and resilient seismic design in regions of high seismicity without resorting to implementing deterministic limits.

View the recording [here](#).

Past Webinar - Connections for Low-damage Seismic Design and Retrofit of Precast Floors

Speaker: Rajesh Dhakal.

Precast concrete floors with cast-in-place toppings have exhibited significant vulnerabilities in past earthquakes, with floor damage often contributing to costly repairs and, in some cases, building



demolition. This seminar presents the development and experimental validation of novel low-damage floor connections designed to mitigate slab damage by accommodating relative displacements between floors and frames during seismic loading through slotted holes. The connections have two main applications: the retrofit of existing buildings with vulnerable precast floor systems and the development of new demountable precast buildings with enhanced post-earthquake reparability. Results from full-scale tests conducted at Tongji University, Shanghai, will be presented. The tests demonstrated that the proposed connections effectively protected the floor system while allowing ductile structural behaviour and rapid post-earthquake recovery through the replacement of damaged structural components, offering a promising pathway towards more resilient and sustainable buildings in seismic regions.

View the recording [here](#).

Past Webinar – NZSEE 2026 Best Practice Paper winner: Seismic strengthening of the three-storey URM CApSc building

Speaker: Sean Gardiner, Egis

The three-storey, bluestone and Oamaru Stone Consumer and Applied Science (CApSc) building (formerly the Home Science Block) at the University of Otago, originally constructed in 1918, was identified as earthquake-prone. The structure is a Category 1 listed heritage building, forming part of the University's Gothic complex. In 2019, the University committed to a comprehensive seismic strengthening and refurbishment programme designed to be sympathetic to the original heritage fabric. This paper describes the identified seismic vulnerabilities of the unreinforced masonry structure and details the strengthening solutions considered and ultimately adopted. Key lessons learned throughout the assessment and construction process, balancing modern engineering requirements with heritage preservation principles, are presented. The project ensures the building's continued functionality and long-term enjoyment.

View the recording [here](#).

New Zealand Earthquake Reconnaissance Programme Update

Over the past three to four months a series of large and damaging earthquakes have affected communities around the world. NZSEE extends its condolences and support to all those affected. These devastating events remind us of the importance of learning from earthquakes and considering which lessons may be relevant to the New Zealand engineering community.

Beginning with the June 2026 earthquake doublet in Venezuela, the NZSEE Earthquake Reconnaissance Programme (ERP) activated virtual reconnaissance efforts to document and assess post-event impacts using publicly available information. Rapid reports were published within one week of each event, providing an overview of the impacts observed. The ERP subsequently deployed virtual reconnaissance for the earthquakes in Japan and Colombia.

We also recognise that these are only some of the many significant earthquakes that have occurred in recent months. Other events, including earthquakes in the Philippines and Aotearoa New Zealand, have affected communities and provided important reminders of the ongoing earthquake risk faced around the world and at home.

While these reports provide valuable context and help keep our members informed, the information collected also supports decision-making about whether a physical reconnaissance mission is worthwhile. So far, NZSEE teams have undertaken physical reconnaissance missions to Venezuela and Colombia, while another team is preparing for a potential mission to Japan.

We would also like to acknowledge the many volunteers who have generously contributed their time to the virtual reconnaissance efforts. Without their commitment, enthusiasm and teamwork, these reports would not have been possible. While there is still much we can improve in how we conduct virtual reconnaissance, volunteers and team members have told us they have enjoyed the experience.



We hope to continue engaging more members in future reconnaissance efforts and keep strengthening our ability to learn from earthquakes around the world and apply those lessons at home in Aotearoa New Zealand.

Remember that you can now visit our ERP platform anytime through the following link: [ERP - Verified Sites \(Beta\)](#)

[NZERP Colombia Report](#)

[NZERP Japan Report](#)

[NZERP Venezuela Report](#)

NZSEE Bulletin Vol. 59 No.3 (2026)

We have recently published the third Bulletin for NZSEE for 2026, the articles are listed below.

Articles

[Effects of ground improvement on the seismic demand on buildings](#)

Romain Meite, Liam Wotherspoon, Russell A. Green

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[Seismic vulnerability assessment of construction projects: A multi-criteria approach](#)

Ahmed Zahaf, Mahmoud Bensaibi

173-182



[Influence of gusset plate design on the collapse risk of buckling-restrained braced frame buildings](#)

Saiteja Sistla, Reagan Chandramohan, Timothy J. Sullivan

183-190



[Comparison of seismic responses using recorded and simulated ground motions for NZS1170.5-based 3D structural analysis](#)

Vahid Loghman, Karim Tarbali, Brendon A Bradley, Didier J Pettinga

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Opinion Papers

[Intersecting traditions in the seismic design of reinforced concrete buildings](#)

Santiago Pujol, Alejandro Saenz Calad

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[View all Bulletin issues.](#)



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EARTHQUAKE ENGINEERING



**Natural Hazards
Commission**
Toka Tū Ake

The Bulletin is published by the [New Zealand Society for Earthquake Engineering](#) (NZSEE) and financially supported by the [Natural Hazards Commission](#) Toka Tū Ake.

We continue to promote submission of practice papers in the Bulletin

The Bulletin is proud to differ from the traditional research journals in the sense that it gives equal importance to both practical project papers and scientific research papers. Nevertheless, despite aiming to strike a balance between practical project papers and scientific research papers, we have not been successful in attracting enough practice papers. To encourage practicing engineers to submit their project results to the bulletin for publication, I would like to highlight the following initiatives:

1. While all submitted papers will be peer reviewed by at least 2 reviewers (third review to be sought in case of a split recommendation from the first two reviewers), we will make sure that practice papers are reviewed by practicing engineers (no more than one researcher)
2. Authors of practice papers are encouraged to suggest a couple of possible reviewers with prior involvement in projects similar to those being reported. The Editors will try to engage at least one of the suggested reviewers to ensure that the paper is reviewed by people with prior knowledge and experience in the relevant area.
3. Short project reports (less than 8 pages) can be submitted as Technical Notes, which will be reviewed by only a single reviewer (who is a practicing engineer with relevant knowledge/experience).
4. Authors of practice papers and technical notes can choose to submit their paper in any format. Once accepted, the Society will arrange for the paper to be formatted to the Bulletin requirement. Note that this is a special privilege given to practice papers so that the authors do not have to spend time in formatting their papers.
5. Once the review process is complete, the Editor will prioritise practice papers (over research papers) in scheduling for publication. This will mean accepted practice papers do not have to wait too long for publication in an issue.

Rajesh Dhakal

Editor, Bulletin of the NZSEE



Obituary Tribute for Peter Smith– by Jon Devine

When I started at Spencer Holmes, Peter was a Director alongside Ralph Jorgensen. In addition to his engineering work, he served on the boards of Indemnity and General Insurance and CEAS, and was Claims Convenor for CEAS, the collective insurer for engineering consultancies. As a young engineer, I was exposed to some fascinating issues that came across his desk. Discussions around the Building Act, professional risk and liability were part of everyday office life, giving us an understanding that was probably deeper than that of a typical engineering practice.

As Claims Convenor, Peter reviewed alerts and claim notifications from engineers facing the unfortunate experience of being sued by a client. His role was to support and guide them through what was often one of the most stressful periods of their professional lives. Peter's calm judgement, practical advice and moral support were deeply valued by many members of the profession. In recognition of these contributions, he was awarded Life Membership of CEAS in 2011.

To summarise how influential Peter was, I will use the opportunity to draw on the citation written when he received the Maclean Citation in 2002:

"It is difficult to find a time in the last twenty years when the name Peter Smith is not mentioned somewhere in the list of office holders of IPENZ, or among the people who represent the profession on various committees or boards."

The Maclean Citation is awarded only to members who have demonstrated exceptional and distinguished service and devotion to the engineering profession and their fellow engineers. Peter was a worthy recipient.

His service extended well beyond that award. He served on the Board of the New Zealand Concrete Society and the Chartered Professional Engineers Council. He was active in the Timber Design Society, Structural Engineering Society, American Concrete Institute, New Zealand Geotechnical Society and the New Zealand Society for Earthquake Engineering.

His contribution to engineering practice came through organisations such as the Consulting Engineers Advancement Society, the Association of Consulting Engineers, and the Board of IPENZ, where he had just completed a six-year term at the time of the citation.

The phrase "*Ask Peter Smith, he'll know*" was often heard when questions arose about engineering practice. And when asked, Peter invariably provided an answer that was thoughtful, practical and accurate.

Peter also served on the Risk Management Committee of FIDIC, the International Federation of Consulting Engineers. Together, Peter and Lynette travelled extensively to attend international conferences and meetings. In 1998 he received the inaugural ACENZ President's Award in recognition of his leadership in risk management and professional liability.

It is worth remembering that most of this work was voluntary. Peter gave countless hours of his own time while continuing to run a successful consulting practice. It was time freely given for the benefit of the engineering profession.

Outside engineering, Peter was President of the Western Hills Lions Club and served on the Board of Trustees of Hutt Valley High School while his children were students there.

Peter was also an astute businessman and led Spencer Holmes to around fifty staff, a size the firm has largely maintained ever since.

In early 2010 Peter was selected to lead the NZSEE reconnaissance mission to Chile following the earthquake and tsunami, gathering information on the performance of buildings and infrastructure relevant to New Zealand.

Following the Canterbury earthquakes, Spencer Holmes was engaged by the Royal Commission on the Canterbury Earthquakes to provide independent structural engineering advice. Peter and I co-authored several reports investigating failed buildings and providing evidence directly to the Commission.

Peter retired as a Director of Spencer Holmes in 2013, although we were fortunate that he continued to contribute as a consultant.



In 2017 he became a Distinguished Fellow of Engineering New Zealand and I had the privilege of writing the citation supporting his nomination. The key message was simple: Peter was still making an outstanding contribution to structural engineering and engineering practice. He continued to represent Engineering New Zealand and the profession on Standards Committees and advisory bodies, and at that time he was serving as President of the New Zealand Society for Earthquake Engineering. He certainly had not slowed down.

Following the Kaikōura earthquake in 2016, Peter became a highly respected public voice for the engineering profession. He had a remarkable ability to explain complex technical concepts in language that the public, media and decision-makers could understand.

Working closely with Ken Elwood and Paul Campbell, he was key in defining the strengthening programme of unreinforced masonry façades in Wellington, Lower Hutt and Blenheim to be secured within twelve months. It was Peter at his persuasive best, helping achieve a significant reduction in risk for the wider community.

These achievements, and many others, led to his election as a Life Member of the New Zealand Society for Earthquake Engineering.

Over more than fifty years in practice, Peter mentored countless young engineers within Spencer Holmes and across the wider profession. Many of those he guided have gone on to become engineering leaders in New Zealand and around the world.

Throughout his career, Peter was an unselfish advocate for engineering and for engineers. His influence can be seen not only in the projects he worked on, but also in the profession he helped shape, the standards he helped raise, and the people he helped develop.

His legacy will endure through all of them.

I would like to acknowledge Arthur Park, Dave Brunsdon and Ralph Jorgensen, Peter's business partner for most of his career, who have helped contribute to these reflections.



Obituary Tribute for Bruce Shephard – by Pathmanathan Brabhakaran

Bruce Shephard (1938-2026)

The New Zealand Society for Earthquake Engineering (NZSEE) records with deep sadness the passing of Bruce Shephard, NZSEE Life Member, former President (1989-1991), distinguished earthquake engineer, mentor, and one of the pioneers of modern seismic design in New Zealand.

Bruce passed away on 30 August 2026 at the age of 87, leaving an enduring legacy in earthquake engineering and the seismic resilience of New Zealand's built environment.

Following his graduation, Bruce joined the Ministry of Works, later becoming part of the Works and Development Services Corporation and subsequently Opus International Consultants (and now WSP New Zealand). Over a career spanning several decades, he established himself as one of New Zealand's leading earthquake engineers and made significant contributions to the development of modern seismic design practice.

In the 1960s, Bruce worked closely with the Ministry of Works' Chief Structural Engineer, Otto Glogau, to develop the *Revised Ministry of Works Code of Practice for the Design of Public Buildings* (1968). In 1969 they published the rationale for this landmark guidance in the *NZSEE Bulletin*, and Bruce presented its application to a reinforced concrete shear core building. This work was instrumental in shaping the earthquake-resistant design of public buildings throughout New Zealand for many decades and contributed significantly to the strong performance of many public buildings during subsequent major earthquakes.

Bruce's commitment to learning from earthquakes extended well beyond New Zealand. In 1989, as leader of an NZSEE reconnaissance team investigating the devastating 1988 Spitak earthquake in Armenia, he travelled onward to San Francisco for discussions with the Earthquake Engineering Research Institute (EERI). While there, the Loma Prieta earthquake struck California. Bruce and his colleagues extended their mission to undertake reconnaissance of that event, returning with valuable lessons that helped advance earthquake engineering practice in New Zealand.

As NZSEE President, Bruce was instrumental in introducing a building placarding system to support the rapid safety assessment of buildings following earthquakes. This initiative became a cornerstone of New Zealand's post-earthquake response framework and proved invaluable during numerous events, most notably the Canterbury earthquakes of 2010-2011. He also contributed internationally, being seconded to Australia following the 1989 Newcastle earthquake to assist with response and recovery efforts.

The increasing losses from events such as the 1987 Edgecumbe earthquake, the 1989 Newcastle earthquake, and other international disasters highlighted the growing need to quantify earthquake risk. Bruce, together with fellow NZSEE Life Member Robert Davey, led pioneering earthquake loss assessment studies across New Zealand, Australia, and other regions. Their work provided insurers and public agencies with a better understanding of earthquake risk and laid foundations for modern loss modelling. Bruce later contributed his expertise to the Earthquake Commission in the development and refinement of its insurance loss models.

Throughout his career, Bruce was an active and influential member of the New Zealand Society for Earthquake Engineering. He worked collaboratively with engineers, researchers, insurers, government agencies, and emergency management practitioners to improve society's resilience to earthquakes. Many of the initiatives he helped establish demonstrated their value decades later. The building safety placarding system was extensively used following the Canterbury earthquakes, while the risk modelling work he championed contributed to the availability of insurance that supported Christchurch's recovery and rebuilding.

Bruce was widely respected not only for his technical expertise and professional accomplishments, but also for his integrity, humility, and generosity. He combined deep analytical capability with a practical approach to problem-solving and was always approachable, thoughtful, and supportive. He mentored and inspired generations of engineers, many of whom went on to assume leadership roles within the profession.



Bruce was the dearly loved husband of the late Janice, a devoted father to Fiona and Iain, and a proud grandfather. The Society extends its heartfelt condolences to his family, friends, colleagues, and all who had the privilege of knowing him.

His contributions to earthquake engineering, public safety, and professional leadership have left an enduring mark on New Zealand. He will be remembered with gratitude, admiration, and respect.

A Personal Reflection

I arrived in New Zealand in 1989 and joined Bruce Shephard at the Works Corporation, which had just evolved from the Ministry of Works. It was also the year that Bruce commenced his term as President of the New Zealand Society for Earthquake Engineering.

Bruce's leadership, encouragement, and willingness to share his knowledge enabled me to quickly develop my understanding of earthquake engineering and become actively involved in NZSEE's efforts to improve the resilience of Aotearoa New Zealand. Many years later, I had the privilege of following in Bruce's footsteps and serving as Society's President from 2004 to 2006.

One memory stands out particularly vividly. Following the devastating Christchurch earthquake of 22 February 2011, I joined other structural engineers in inspecting damaged buildings throughout the city. At the end of a long day, one colleague remarked: *"Isn't it remarkable that so many of the public buildings designed and constructed by the Ministry of Works seem to have performed so well?"*

That observation spoke volumes. It reflected the foresight, engineering judgement, and commitment of Bruce Shephard and his colleagues in developing the 1968 seismic design code for public buildings. The resilience demonstrated by those buildings more than forty years later was a powerful testament to the quality of their work and the lasting value of their contribution to New Zealand society.

Bruce's legacy lives on not only through the buildings, policies, and professional practices he helped create, but also through the many engineers he mentored and inspired. New Zealand is safer and more resilient because of his life's work.

Pathmanathan Brabhakaran
Immediate Past President
New Zealand Society for Earthquake Engineering

PS. Thanks to Dave Brunsdon and Peter Wood, both former presidents of NZSEE who shared some information to help write this obituary

