



# General Practitioners September 2023 Newsletter

Welcome to the third newsletter for 2023.

This quarter's newsletter we have a few great opinion pieces. If you missed Aaron Hollands article about Complications with Practise Areas that went out a few weeks ago, we have attached it here. Please keep your responses coming through, they are a great help. Nick Calvert has provided some useful advice on lateral restraint of columns and beams, based on errors he has noticed in reviews, so definitely worth a look. There are a few helpful templates for geotechnical reporting for both full investigations and when a geotechnical engineer is not required to get involved. We also have a learning from a disciplinary decision about a fire report that did not satisfy minimum standards as the engineer was not a specialist.

The EGP group has organised events around the country to get local engineers meeting each other and to be able to discuss ideas, ask questions or just find out what others are doing in your area. Many of these are continuing on a monthly basis and we have a new location for the Kapiti area. If you are in the area, come along and join us.

Don't forget to share your photos of any interesting jobs you have done for others to view on Slack, or submission can be emailed to [general.practitioners@engineeringnz.org](mailto:general.practitioners@engineeringnz.org). Also, **I would like to encourage you all to submit your lessons learned for inclusion in our upcoming newsletters.** This is anonymous and a great tool to help other engineers to not repeat the same mistakes. We are also asking for you to submit photos that you think best describe Engineering General Practice, so that we can showcase exactly what we as EGPs do.

Tamlyn Adams, Editor

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## Message from the Chair

Kia ora members.

Our SIG is going from strength to strength with membership in the high 300's. Our goal is 400 members this year. It seems that the things we bring to General Practitioners strike a chord and our members see the value – please spread the word. Further our voice is being heard with most engineers I talk to at least know we exist. We have had dialogue with SESOC, Engineering New Zealand, NZGS, TDS and other groups. This dialogue is by no means one way, with the groups often asking us for our views and to promote their webinars.

We are coming to elections for officers and elsewhere in this newsletter is a discussion on the committee membership moving forward and the timetable. You will note that I am standing down as chair but will remain on board to help things along for another year. I will also continue to promote Engineering General Practice as there is still much to do.

Please consider standing for the committee and use our platform to make a difference – we come from a position of common sense.

I would like to use these notes to acknowledge the work done by the committee members:

Kelly Pilkington has done sterling work as our secretary for the last two years. As the director of a small practice, she is extremely busy but is so organised that Agendas and minutes are promptly circulated. She also handles many enquiries and liaises well with the support staff at Engineering New Zealand. Kelly has initiated a number of activities and helps to promote our cause.

Ian Watson has been a long-standing committee member and is a good watchdog keeping us on task. He has organised the webinar program with some interesting speakers and topics. Attendance at these is usually of the order of 200 to 300.

Graeme McMillan has been our treasurer and was instrumental in setting up the first of our regional meets intended to put EGP's in touch with others to form very localised support networks. These were as 'seed' events and it looks like some local groups are continuing with the monthly meetings.

Martin Cockitt brings the wisdom of a Lead Assessor into our discussions and continues to promote our cause at the Lead Assessors forums. He has also been working on a priority matrix intended to ensure we use our committee resources in the best way possible.

Tamlyn Adams has continued to produce the newsletter and has done a good job of hounding us for contributions. She has also contributed significantly to the work being done to breaking through the tangled mess that is the TA approach to engineer recognition.

Aaron Holland has been part of the EGP movement from the beginning and has continued the work of shining a light on the inequities that we deal with every day with TA's and the complex business of getting our competency recognised. This is vital work and I encourage you to respond to the survey that went out with his opinion piece distributed a couple of weeks back.

Nick Calvert has continued to provide excellent technical input and his work as moderator of the Slack Channel has been invaluable. If you are not already a member I cannot recommend it highly enough. It is a place to find interesting information, stay up to date and to field questions – someone always has an answer. It is also a place where you can find an engineer to pick up some work that may be outside your competence area or who works in some other part of the country.

Aside from these we continue to get great support from Engineering New Zealand - Kennie Tsui – our board member. She keeps us up to date and carries our concerns direct to the top; Martin Pratchett who provides support and seeks our input to a myriad of initiatives of a technical and interest nature; Alana Nixon and her team, without whom our communications with you would be very difficult if not impossible.

As a last note I'd like to express my appreciation for the confidence shown in me as chair. It has been a privilege and a pleasure to have been instrumental in setting the SIG up and being here as we establish ourselves as a credible part of the Engineering New Zealand community. I look forward to the future as we grow, in size, maturity and influence.

Kia kaha

**Pete van Grinsven**

Chair

## **Upcoming Engineering Gathering – Come Meet Engineers in Your Area**

A small group of engineers in the Rodney area in Auckland started getting together once a month to have a coffee with each other at the Kings Plant Barn café over 10 years ago and it has been going strong ever since, it is a great way to discuss issues you may have, look at different ways to tackle projects, find out how others are working and in general just catch up with some great engineers. The EGP has made a conscious effort to start these groups throughout the country and there is a good gathering in Hamilton and elsewhere, but we would like to encourage this further.

In June we set up a few new locations for meets and it was well received. Many of these locations are continuing to have monthly gatherings or are slowly building up to that with suggestions for new locations popping up all over now.

We have a new event for Kapiti below. There will be some nibbles and beverages provided at the first set up event in each area and everyone is welcome. If you can please contact the event coordinator below so we can determine numbers for catering.

Area	Location	Date	Time
Kapiti	Longbeach Tavern, 40 Tutere Street, Waikanae	20/09/2023	17:30-19:00

If you have any questions, please feel free to reach out to us on [tech.groups@engineeringnz.org](mailto:tech.groups@engineeringnz.org)

## The EGP One Question Survey

This issue, we are asking Engineering General Practitioners:

Site visits are now allowed to be made virtually by many councils. A video copy of the visit can be recorded if needed and made available at a later date. Are you comfortable with virtual visits?

- Yes, its no problem and saves on travel time and costs.
- No, I don't trust the camera operator
- Only on very simple inspections

**CLICK TO TAKE THE  
SURVEY**

In the last issue we asked:

How is it that in a world where the internet is a thing that exists, Standards New Zealand can't provide a current version of all Codes without resorting to issuing separate documents that say "Delete Clause X.XX and replace with the following..."

ANSWER CHOICES	RESPONSES
I know, right? It just makes my job so much harder to stay on top of amendments	91.67%
You can take my well-annotated paper copies of the Standards from my cold dead hand	8.33%

It is great to see the number of responses increasing for our surveys, we had 36 responses to the previous question with 92% in agreement. We are wanting to take these responses back to the necessary parties so hopefully some adjustments can start being made, so pleas keep them coming.

## Learning Opportunities

The biggest oppotunities to learn from are not when things go right, but when they go wrong. The best way to learn from your mistakes is to recognise what went wrong and how you (and others) can avoid making the same mistake again.

Click on the links below to read some anonymous Learning Opportunities submitted by two different contributors:

1. Engineering New Zealand Learning from Disciplinary Decisions – Inadequate fire report by engineer who is not a fire specialist

[https://www.engineeringnz.org/documents/1645/DisciplinaryLearnings\\_CaseStudy-August2023.pdf](https://www.engineeringnz.org/documents/1645/DisciplinaryLearnings_CaseStudy-August2023.pdf)

Do you have a learning opportunity that would be of interest to your fellow EGP members, please submit your examples for others to learn from? Download the Learning Opportunities form [here](#) and send it to [egp.sig.anonymous@gmail.com](mailto:egp.sig.anonymous@gmail.com)

## EGP Slack Channel Update

Nick Calvert

The EGPSIG Slack channel provides a useful forum for technical discussion. The committee recommends that all our members are active on the slack channel. Follow this link to sign up and install the EGP Slack Channel: <https://egp-sig-nz.slack.com/archives/CUHB068FJ>. If you have any issues or questions regarding the Slack channel, feel free to email your questions to [tech.groups@engineeringnz.org](mailto:tech.groups@engineeringnz.org).

Since last update there has been plenty of positive technical discussion on the Slack channel. We have recently arranged to obtain technical input from the TDS and Timber Unlimited so that we can better answer technical queries relating to timber structures. Some recent discussion topics include the following:

- Assessing the effect of geogrids on bearing capacity
- Rebracing of flood damaged homes
- The impact of polystyrene below foundations
- The effect of portal frames subjected to fire pulling precast fire wall panels inwards
- How to assess the bracing capacity of existing houses with no drawings
- Discussions on the Taupo based Technician fraudulently using CPEng engineers signatures
- Discussion about engineers signing PS4s for projects where the Contractor refuses to release a PS3
- Galvanised steel in the subfloor space of houses
- How to use AS/NZS1720.1 for unseasoned timber or timber subject to repeat wetting and drying
- Design of fillet welds on very thin members or plates
- Bamboo panel balustrade design
- Steel and 100 year durability solutions

Missed any topics of interest to you? Have a look back on the Slack Channel to see what was discussed.

Do you have any interesting photos from your EGP jobs, share them on the EGP-Photos Channel on Slack. Great to see what we are working on out there.

We ask all members to continue to be active on the Slack channel because the more activity, the more beneficial the content is for everyone. If you missed out on any of these, go have a look at the discussions and feel free to add your input.

# Geotechnical Report Template

For a project to succeed, there must be clear communication between all parties involved (eg geotechnical engineer, structural engineer, client etc). All parties in a project need to understand the requirement of their services by the others involved.

Engineering New Zealand has heard from regulatory bodies, engineers and architects that there's a need for consistency in the geotechnical reports provided. Engineering New Zealand, in collaboration with the New Zealand Geotechnical Society (NZGS), the Engineering General Practitioners Group, Structural Engineering Society New Zealand (SESOC), and engineers from Christchurch and Tauranga councils, has produced this Guideline and Report Template to be used by engineers to communicate geotechnical findings to other disciplines on simple, low-risk projects. This is only a template report – it isn't a substitute for professional engineering advice or judgement. It includes geotechnical considerations and issues that generally need to be addressed to support typical residential development projects. Other geotechnical issues and risks that have not been included in this template may need to be addressed. Care should be taken that the template is adequately adjusted for every project's specific requirements and geological–geotechnical conditions.

[READ MORE](#)

## Civil and Structural Engineers Initial Geotechnical Assessment Report Template

Engineering New Zealand

Engineering New Zealand has developed a Soil Suitability Report spreadsheet for engineers to provide information to BCA'S in situations where a full geotechnical report is not required. It provides a template for the type of information that should be presented to a BCA to justify the engineer's assumptions when a geotechnical report by a Chartered Professional Engineer/Geologist is unlikely to be required.

[VIEW WORD DOC REPORT](#)

[VIEW EXCEL REPORT](#)

[VIEW PDF REPORT](#)

# Lateral Restraint of Columns and Beams

Opinion Piece – Nick Calvert

In my career, as a peer reviewer, mentor, and practice area assessor, I commonly see engineers making what I consider to be errors in the way they provide both lateral restraint for axially loaded members, and lateral torsional buckling restraint for non-symmetric members subject to bending. I explain this further below using steel members as examples, however in my experience this applies to most material types.

Axially loaded members – Section 6.7 of NZS3404 includes a requirement to restrain columns with a force equal to 0.025 times the maximum design axial compression force. I interpret this to mean that every time a lateral restraint is provided to a column, the engineer needs to provide a structure suitable to carry these restraint forces all the way to the ground. Typically, these restraints would be in two orthogonal directions i.e. if a column has a 10m major axis buckling length and a 5m minor axis buckling length then the design should include a structure to resist 0.025 times the axial force at the 5m point to resist y axis buckling and a structure to resist 0.025 time the axial force at the 0m and 10m point to resist x & y axis buckling. This restraint force must also include the base of columns. I have seen instances where engineers have ignored this requirement. Examples of common issues with column lateral restraints include floor support columns which support a mid floor beam with no diaphragm or perpendicular beam.

Lateral torsional buckling (LTB) restraint – as we all know, members such as UBs and UCs buckle under bending moments if they are not restrained. Similar to columns, NZS3404 section 5.4.3 includes the requirement to provide a structure capable of resisting 0.025 times the maximum force in the critical flange at any point where LTB restraint is assumed (i.e. at the ends of any assumed segments). This is a real force and needs a system that can take the loads to the ground. I have commonly seen engineers using fly braces to provide LTB restraint but then not following the force to the ground, under peer review engineers point towards various papers and design guides, however a design guide is no replacement for confirming a suitable and continuous load path. Another issue I have seen is engineers assuming that stiffeners are a suitable solution to LTB restraint, however the torsion resulting from sideways buckling of the critical flange needs to be removed from the system and so if a flybrace can't be used, a stiffener is only suitable if there is a torsional restraint of the other flange. Examples of this include rafters with no bottom flange fly bracing or no reliable structure to take the restraint loads to the ground, or columns subject to bending from lateral loads with no flybracing or load path to ground.

The key summary from this is that the restraint forces in NZS3404 section 6.7 and 5.4 are real and engineers should follow the load path to take those to the ground. This requirement applies equally to timber structures but NZS3603 does not provide this requirement explicitly.

# The Complications with Practice Areas

Opinion Piece - Aaron Holland

Some of you are probably aware of the problems being encountered across the engineering fields presently and a number of you will probably have been impacted either a little bit or a lot by what follows.

There seems to be a lack of understanding by the regulatory authorities and even some of those within the engineering profession as to what a CPEng engineer is and what they may or may not be capable of engineering, and even more importantly what engineering is actually complex and what is relatively simple engineering.

[READ MORE](#)

We have already had some great responses to this article, thank you to those who have submitted these responses. If you have not already please do so as it will only strengthen our case. See the link below to the survey:

[TAKE THE SURVEY](#)

## Have You Seen the Producer Statement “A” Series?

Tamlyn Adams

Engineering New Zealand and ACE New Zealand have created a producer statement noted as the “A” series that covers designs where a building consent is not required. There seems to be some confusion within the Engineering industry what to do when building consents are not required as the Producer Statements were meant solely for Building Consent requirements, however some clients will still require Producer Statements regardless of if the job is undergoing consent or not.

The” A” series will cover these scenarios, there are templates for PS1A, PS2A, PS4A. If you have not seen it yet find it in the link below:

[READ MORE](#)



# EGPSIG – Upcoming Elections.

Pete Van Grinsven

In keeping with the policy on committee membership advised elsewhere in this bulletin the timetable for the committee elections is spelled out below. All milestones will be backed by emails from Engineering New Zealand who will be running the election. You should expect emails covering each step on the dates shown.

**Friday 15 September – Call for nominations**

**Friday 29 September – Nominations close**

**Monday 2 October – Candidate bios sent out**

**Wednesday 4 October – Webinar – meet the candidates and feedback opportunity**

**Friday 6 October – voting opens**

**Friday 13 October - voting closes**

**Monday 16 October - Candidates advised of election results**

**Wednesday 18 October – membership advised of outcome and first meeting for new committee (outgoing members to attend to assist in changeover)**

We would encourage you to consider serving the EGP community in this way. It is a privilege to be able to assist members whose professional work is wide and varied and often not seen as the vital part of the wider engineering profession that it is. As the years unfold, the regulatory environment for engineering will change and it is vital that the role of EGPs remains recognised. Our work now will establish the work environment for the generations who follow us – it is so rewarding to be a part of that.

As we also disseminate new design and professional advice coming out of the various stakeholders in the industry, being on the committee keeps one up-to-date with developments and provides CPD hours for your requirements.

As a last note I intend to stand down from the role of chair and, in keeping with the policy spelled out elsewhere in this bulletin, will stay on as a committee member for another year. I will be nominating Kelly Pilkington for chair. She has served very ably as the secretary of the committee for the last two years and has been very active in promoting the SIG. She has taken an active role in many of our initiatives and has a good understanding of the structures within ENZ and the community that support our work. Kelly is extremely well equipped to continue the work we have been doing for 5 years now.

## Upcoming EGP Webinars

The EGP has recently been rolling out a few great webinars for our members with a few other exciting ones lined up. Below are some webinars by the EGP and others, that may be of interest to our members coming up soon, otherwise please refer to the Engineering New Zealand link below for a full list of upcoming webinars:

<b>Date</b>	<b>Webinar/Event</b>
14/09/2023	Fire Engineering - SIGIE
19/09/2023	Concrete Drainage Pipes 101
20/09/2023	Seismic Retrofitting Concrete Structures
26/09/2023	Contractors 101 – How to Succeed As Your Own Boss
<b>04/10/2023</b>	<b>Meet the Candidates – EGP Elections</b>
<b>08/11/2023</b>	<b>EGP Webinar – Topic to be advised</b>

As a voluntary committee, we want to bring you quality content to support your work as a General Practitioner and we hope you'll join us for our next webinar. If you have ideas for future webinar topics, please get in touch, we would love to hear from you.

If you missed any of the previous EGP webinars, you can watch it through the link below:

[\*\*VIEW HERE\*\*](#)