STEEL CONSTRUCTION NEW ZEALAND

STEEL FUTURES

DECEMBER 2018

SCNZ CHAIRMAN'S MESSAGE

SCNZ is an organisation with a long heritage, a great reputation, talented people and a strong Council providing leadership and support for Management.

With our five-year strategic plan firmly in place, we will continue to lead the structural steel industry from the front, identifying and responding to threats and opportunities, and providing timely and reliable information to all our members.

There is no doubt that 2018 was a year of action for SCNZ and consolidation for the industry. Low quality imported fabricated steel with questionable compliance remains a high risk, however the SFC scheme is undoubtedly making its mark as we are increasingly seeing engineers and Local Authorities take notice of the value of having an audited quality system in place for structural steel, particularly in relation to AS/NZS 5131.

It is fantastic to see so many of our fabricator members embrace the scheme and support us in our drive to ensure the highest standards for our customers.

I anticipate that 2019 will be another busy and fruitful year for SCNZ and for our industry in general. I know that the Christmas holiday will be a welcome break for most, giving us valuable time to spend with our families and to recharge our batteries.

On behalf of the SCNZ Executive Council, I hope you all have a very safe and happy festive season.

Wayne Carson
SCNZ Chairman

"Strengthening Kiwi. Steeling the Future"

ALSO IN THIS ISSUE:

- SCNZ Manager's Message
- MBIE Publishes B1/VM1 Amendment
- SCNZ Leads the Way on Quality and Compliance
- Popular 2018 Seminar now Available Online
- Patton Engineering: Inspiring the Next Generation
- Don't Miss Out on Our Range of Literature Essentials

As 2018 draws to a close, the team at SCNZ would like to take this opportunity to thank you for your continued support.

We have had some great successes in 2018, with the citing of AS/NZS 5131 Structural Steelwork – Fabrication and Erection, our series of SCNZ Steel Structures Seminars for engineers and Breakfast Seminars for builders, launch of the NZ Guide to the Sourcing of Compliant Steels and our annual Gala Dinner to name a few. Moreover, our engineering team has made over 80 visits and presentations to Consulting Engineers and earnt fantastic feedback as a result.

SCNZ will be continuing this momentum in 2019. SFC remains a key focus and we urge those of you who are yet to embark on this journey to build it into your 2019 plans. Attending the new SFC for Beginners workshops will help you to kick start the process for your business and it is great to see that the Auckland workshop is already fully booked.

On behalf of all members and industry participants, I would like to take this opportunity to recognise and thank those who volunteer and dedicate their valuable time on the SCNZ Executive Council; and the many others who participate and contribute towards other aspects of our projects and activities.

It remains a privilege and a pleasure to be part of the SCNZ team, and a large part of that is the commitment and enthusiasm our members show for the success of our organisation and the industry.

So, on behalf of SCNZ, I wish you and yours a Merry Christmas, a Happy New Year and a festive and relaxing break – I look forward to our continued success in 2019.

Darren O'Riley
SCNZ Manager

Please note the SCNZ office will close Friday 21st December and will reopen on Monday 14th January.

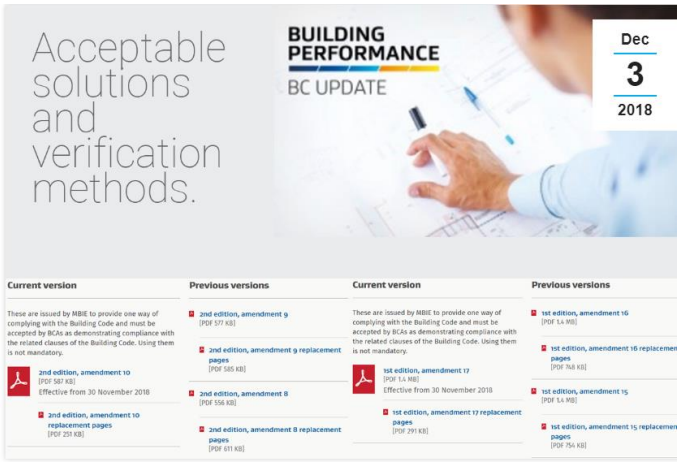
MBIE PUBLISHES B1/VM1 AMENDMENT 17 AND B2/AS1 AMENDMENT 10

Over the last nine months, SCNZ has worked closely with HERA and MBIE to exploit the significant investment that has been made in developing the new composite design standard (AS/NZS 2327) and the durability technical specification (NZS TS 3404) by having them referenced in B1/VM1 and B2/AS1 of the New Zealand Building Code.

The amendments will result in **AS/NZS 2327 replacing Section 13 of NZS 3404.1, and SNZ TS 3404 replacing Appendix C of NZS 3404.1**.

Furthermore, **SNZ TS 3404 will become an Acceptable Solution for meeting the durability requirements of steel building elements**. These amendments became effective on 30 November 2018.

The previous Acceptable Solutions and Verification Methods will continue to comply until 31 March 2019. However, if used from 1 April 2019, the previous Acceptable Solutions and Verification Methods must be considered an alternative solution proposal.



An update was needed to unlock the benefits in AS/NZS 2327 and NZS TS 3404

The introduction of AS/NZS 2327 expands on the information currently in NZS 3404.1 and provides design provisions on a wider range of composite structures. The Australian Building Codes Board (ABCB) has indicated that AS/NZS 2327 will be referenced in the 2019 edition of their NCC.

Previously, there was no means of compliance with Building Code clause B2 Durability for steel construction, which resulted in designers using Appendix C of NZS 3404.1 and having the difficult task of applying AS/NZS 2312. NZS TS 3404 clarifies the application of AS/NZS 2312, providing a pathway for designers to specify corrosion protection systems. The addition to B2/AS1 will provide an approved compliance pathway and avoid the need to justify alternative solutions.

What does this mean for you?

From 1 April 2019 building consent and territorial authorities must take these changes into account when deciding whether a building consent application complies with the building code.

To assist our members, SCNZ is currently supporting HERA to develop a guide and worked examples for designing to the new AS/NZS 2327 standard.

Following support from both the Australian and New Zealand industry, work has been commenced by the international software developer Oasys to implement AS/NZS 2327 within their Compos composite beam design software, which will provide a wider range of tools for users.

Finally, some manufacturers of products for composite construction have subjected their systems to the standard tests given in AS/NZS 2327 to ensure that they comply with the new standard.

For further information, please contact Kevin Cowie, Senior Structural Engineer (Technical), at kevin.cowie@scnz.org or 09 262 6685.

SCNZ LEADS THE WAY ON QUALITY AND COMPLIANCE

SCNZ continues to be at the forefront of quality and compliance in the construction industry with the publication of a new compliance document: **NZ Structural Steelwork Specification in Compliance with AS/NZS 5131**. There has been a very strong desire from engineers and the industry for a document to simplify and standardise the specification of structural steelwork in New Zealand. This document, peer reviewed by leading structural engineers, will help engineers achieve this.

NZ Structural Steelwork Specification in Compliance with AS/NZS 5131

The globalisation of structural steel supply chains for New Zealand building and infrastructure projects mean more robust procurement practices are required to demonstrate product conformity than are currently stipulated in the relevant material supply standards and the New Zealand building regulations.

Accordingly, SCNZ has published two new compliance documents this year. The first – **the New Zealand Guide to the Sourcing of Compliant Structural Steels** – was developed in collaboration with HERA earlier this year.

The second document, NZ Structural Steelwork Specification in Compliance with AS/NZS 5131, has been created with HERA and is intended to standardise the specification of structural steelwork requirements across New Zealand.

This generic specification has been configured to apply to general steel framing for buildings and structures. It is intended to be the implementation tool used to embed the requirements of the recently published Standard AS/NZS 5131 (Structural Steelwork – Fabrication and Erection) into New Zealand engineering and steelwork procurement practice.

The specification:

- presents a standardised template for creating project-specific and/or company specific specifications for structural steelwork
- relies on AS/NZS 5131 for the definition of good practice
- provides editable AS/NZS 5131 project-specific selections for you to configure the specification for your project or company
- provides the structure to define the Construction Category for your project or component.

SCNZ Manager, Darren O'Riley, says: "This specification document will significantly increase efficiencies in project delivery and cost, improve quality and compliance, and provide long-term value.

"With these new guidelines and the Steel Fabrication Certification (SFC) of SCNZ Structural Steel Contractors, our customers can expect minimised risk, fit-for-purpose, value engineered outcomes for structural steelwork projects in New Zealand."

To enable ongoing improvement, this document is designed to be updated regularly, based on reviews and feedback. **To help us improve this document, please send your feedback to Kevin Cowie, Senior Structural Engineer, at kevin.cowie@scnz.org or 09 262 6685.**

For a copy of the NZ Structural Steelwork Specification in Compliance with AS/NZS 5131, please click **here** for a pdf copy or a freely editable Word copy.

POPULAR 2018 SEMINAR NOW AVAILABLE ONLINE

SCNZ's **Practical Steel Frame Design & Fabrication Standards Seminar**, which is packed with opportunities for engineers to update their knowledge and improve their skills for designing cost-effective and seismically resilient steel structures, is now available to purchase online.

Presented by Kevin Cowie and Zahid Hamid - SCNZ; Alistair Fussell - Tangent Consulting; Wayne Carson - D&H Steel Construction; Bob Hawley - Red Steel and Jamie Macredie – Steltech, the Practical Steel Frame Design Seminar proved hugely successful when the team toured eight centres nationwide, delivering Steel Structures Seminars to 190 engineers.

The seminar leads with an overview of the design of seismic-resistant steel buildings with moment resisting frames for low-rise industrial and multi-level buildings. It discusses research into the seismic performance of steel buildings during the Kaikoura Earthquake with recommendations to further improve steel construction performance in severe earthquake events. Tips on cost-effective structural arrangements for portal frames structures are also shared.

The second part focuses on steel fabrication and standards updates. Included is a demonstration of where cost savings can be made in design and why shop detailing is done in-house, giving a behind-the-scene look at a fabrication shop.

The seminar looks at the new AS/NZS 5131 Fabrication and Erection Standard, which is now cited in the Building Code, and the role of the engineer in its implementation, as well as the new technical standard for the durability of steel structures.

For the one-off price of $400, all your employees can now view this must-see seminar at their convenience.

To purchase this online seminar, recorded during the Steel Structures Seminars roadshow which toured New Zealand during July and August 2018, please click here.

PATTON ENGINEERING: INSPIRING THE NEXT GENERATION

Patton Engineering has formed a partnership with Hastings Boys' High School with the aim of training students at grass roots level (ages 15-17), exposing them to the industry and providing them with opportunities and work experience.

The initiative aimed to get 15 students into apprenticeships across a whole range of trades this year alone.

Managing director of Patton Engineering, Johno Williams, said that introducing students to the varying trades will enable them to take the right classes in their formative years to give themselves the best chance of ending up in a trade that is of interest to them. This will result in growth in the pool of candidates available to the industry with a focus on quality workmanship.

(L-R) Johno Williams, Managing Director – Patton Engineering; Phelix Bargh, Hastings Boys' High School; Lawrence Yule, National MP – Tukituki; and Graeme Barrett, Acting Headmaster – Hasting Boys' High School

"We are very aware of the shortage of skilled, dedicated people currently in the engineering industry. We would like to improve the qualifications of the future workforce, whilst recognising local talent within our community."

Patton Engineering has been taking on up to eight students on rotation every second week for hands-on work experience and as a result, has recently employed three apprentices directly from the school.

Johno continues: "What started out as one-on-one general welding tuition in the disciples of mig and stick welding has now seen several of the more experienced students being partnered with qualified fabricators and assisting their clients' projects.

"Our aim is to encourage, motivate and inspire students at grassroots level by giving them real life exposure to the structural engineering industry and with two of our directors being ex-students of Hastings Boys' High School over 50 years ago, the partnership with the school seemed like the logical choice."

A committee has been formed including influential members from local companies as well as energetic teachers, deans and the principal.

With 70 per cent of Hastings Boys' High School students not attending university, Head of Department for Technology, Salla Delport, said it was a great way for their students to be exposed to the trades and engineering as employment opportunities.

"We want the students to be introduced to technology where they have got various options: building and construction, engineering, and then start focussing on a trade occupation. We can offer them credits to their advantage based on the NCEA curriculum."

Acting Headmaster, Graeme Barrett, said it was all about opening doors for their students. "The students are buzzing with excitement over the opportunity to be involved in such an initiative. We are extremely grateful for the ongoing support and enthusiasm of Patton Engineering and the other stakeholders involved in this joint venture."

Patton Engineering has committed to employing two new apprentices each year from the High School as well as subsidising a tertiary engineering degree every year.

National Tukituki MP, Lawrence Yule, believes the initiative is insightful. "The investment that is being made by Patton Engineering and others into young people is inspirational.

"Here is an industry that has said actually we are crying out for skilled people, we want to give young people a chance and we are prepared to make the investment."

If you would like more information about this exciting new model, please contact Johno Williams at Patton Engineering, email johno@patton.co.nz.

DON'T MISS OUT ON OUR NEW RANGE OF LITERATURE ESSENTIALS

A reminder that SCNZ has an extensive range of new literature which all members and the wider industry should find informative and useful.

NZ Guide to the Sourcing of Compliant Structural Steels

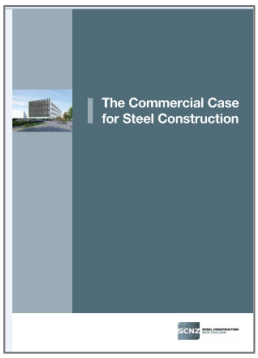
This guide is relevant to all stakeholders engaged in the design, construction and consenting of structural steel buildings and infrastructure projects. It covers the supply of structural steels and welded sections for locally and internationally fabricated structural steelwork. The Guide applies a risk-based approach to determine what evidence of compliance is warranted for structural steels. It identifies if project-specific, third-party testing of any steel is required.

NZ Structural Steelwork Specification in Compliance with AS/NZS 5131

This generic specification has been configured to apply to general structural steel framing for buildings and structures. The specification is intended to be the implementation tool used to embed the requirements of the recently published New Zealand Standard AS/NZS 5131 (Structural Steelwork – Fabrication and Erection) into New Zealand engineering and steelwork procurement practice.

Fact sheet: Guide to Sourcing Compliant Structural Steels

A fact sheet summarising the above NZ Guide to the Sourcing of Compliant Structural Steels.



The Commercial Case for Steel Construction

A comparison of the construction costs of steel versus other building materials on a model four-storey office building project based on Auckland and Christchurch construction and rental rates.

Structural Steel Industry Update: September 2018

This update provides an overview of the NZ Structural Steel Industry capacity, estimated delivery performance and market update.

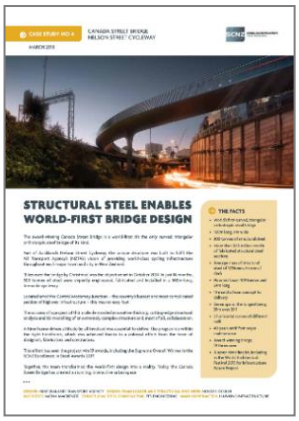
The New AS/NZS 5131

A brochure that provides an overview of the new AS /NZS 5131 Structural Steelwork standard and the implications for the industry in general; and Engineers, Builders and Fabricators specifically.

And a re-cap on literature released over the past 12 months or so….

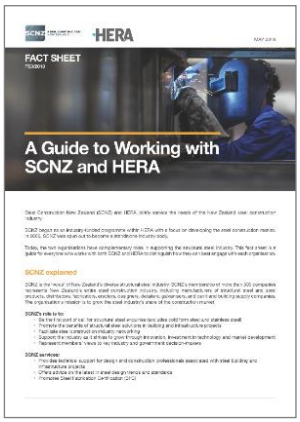
Case Study No.5

Case Study on the University of Waikato: Law School and Management Studies Building.



Case Study No.4

Case Study on the Canada Street Bridge / Nelson Street Cycleway Auckland



Fact Sheet: A Guide to Working with SCNZ and HERA

A fact sheet defining the roles and services that both SCNZ and HERA provide for the industry.

Fact Sheet: Evaluation of Product Conformity

Provides an overview of conformance assessment and the role of third-parties. It also offers guidance for identifying appropriate third-party product guidance schemes.

2018/2019 CALENDAR OF KEY DATES

DECEMBER

Apprentice of the Year & Excellence in Steel awards are now open for entries.

21st SCNZ Office Closes

JANUARY

14th SCNZ Office Opens

MARCH

14th SCNZ Exec Meeting

JUNE

13th SCNZ Exec Meeting

JULY

1st Excellence in Steel Awards closes for entries
5th Apprentice of the Year Award entries close

SEPTEMBER

13th SCNZ Gala Dinner at Steel Agenda AGM and Conference, Wellington. Apprentice of the Year and Excellence in Steel Award winners announced