

STEEL FUTURES

➔ AUGUST 2018

SCNZ ON THE ROAD – TOPICAL SEMINARS FOR ENGINEERS AND BUILDERS

SCNZ’s 2018 roadshow has got off to a great start. The team has been in the Bay of Plenty, Waikato, Hawkes Bay and Auckland delivering **Steel Structures Seminars** for engineers and **Breakfast Seminars** for builders.

With a strong focus on the very topical subject of compliance, both series of events have attracted a great turn out.

The “Practical Steel Frame Design Seminar” is a must-attend event for practising structural engineers, engineering students and academics. The Seminar is packed with opportunities for engineers to update their knowledge, improve their skills for designing cost-effective and seismically resilient steel structures, and network with industry peers.



Click [here](#) to register for the Christchurch, Palmerston North or Wellington seminar today!

Our series of **free** breakfast seminars gives builders an invaluable opportunity to hear directly from steel industry experts on the new fabrication and erection standard (AS/NZS 5131), gain tips on their next structural steel project and learn how steel fabrication can add value to their projects.

SCNZ Manager, Darren O’ Riley, comments: “Our successful roadshow will be moving onto Dunedin, Christchurch, Palmerston North and Wellington next. Please pass this invite on to your builders today. Numbers are limited so don’t delay.”



To see the full schedule for upcoming events, please [click here](#).

Also in this issue:

- New Specification Due for Publication
- Structural Steel Industry Update: July 18
- NZ Guide to the Sourcing of Compliant Structural Steels
- SCNZ Boosts Range of Literature Essentials
- Valuable Online Resource for All Members
- Steel Agenda (AGM & Conference)
- New Industry Case Study
- Excellence in Steel Awards 2018
- Call for Comment – MBIE consultation for proposed changes to B1/VM1 and B2/AS1

NEW SPECIFICATION DUE FOR PUBLICATION

A new specification - New Zealand Structural Steelwork Specification in Compliance with AS/NZS 5131 - will be available later this month.

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

The intent of this specification is to standardise the development of structural steelwork-related project requirements across New Zealand, which will significantly improve efficiencies in project delivery, cost, quality, compliance and long-term value.

In compliance with SCNZ Steel Fabrication Certification (SFC) and contingent certification of Structural Steel Contractors, our industry can expect risk minimised, fit-for-purpose and value engineered outcomes for structural steelwork projects in New Zealand.

An editable, downloadable copy of the specification will be made available on the SCNZ website in due course.

STRUCTURAL STEEL INDUSTRY UPDATE: JULY 2018

Our latest market update indicates that there is significant spare industry capacity for the year ending March 2019 – estimated at 29 per cent, based on a current estimated total capacity of 120,000 tonnes per annum.

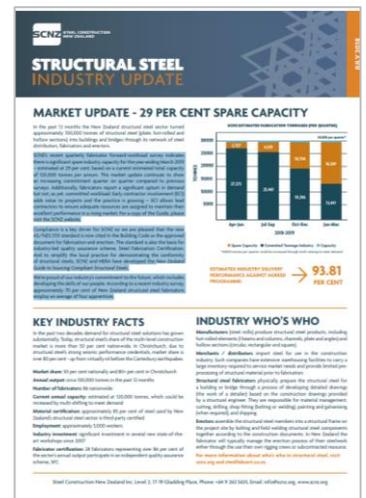
This market update continues to show an increasing commitment quarter on quarter compared to previous surveys.

Additionally, in SCNZ's recent quarterly fabricator forward-workload survey, fabricators reported a significant upturn in demand but not, yet, committed workload.

Early contractor involvement (ECI) adds value to projects and we're pleased to report that the practice is growing – ECI allows lead contractors to ensure adequate resources are assigned to maintain their excellent performance in a rising market.

We're proud of our industry's commitment to the future, which includes developing the skills of our people. According to a recent industry survey, approximately 70 per cent of New Zealand structural steel fabricators employ an average of four apprentices.

Please take a moment to look at the latest Structural Steel Industry Update and share it with your networks.



SCNZ's sixth Structural Steel Industry Snapshot

NZ GUIDE TO THE SOURCING OF COMPLIANT STRUCTURAL STEELS

SCNZ has developed the **New Zealand Guide to the Sourcing of Compliant Structural Steels** in collaboration with HERA.

The globalisation of structural steel supply chains for New Zealand building and infrastructure projects means 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 and HERA have published this Guide to simplify local practice for demonstrating the conformity of structural steels.

The Guide applies a risk-based approach to determine what evidence of conformity is warranted for structural steels. It identifies if project-specific, third-party testing of any steel is required. It is applicable to structural steels sourced for locally and internationally fabricated structural steelwork.

It features a suggested implementation plan and discusses the roles and responsibilities of various parties in the structural steel supply chain. These parties include the project engineers, structural steelwork contractor, structural steel distributor, builder and other specialist expertise including metallurgy and product testing.

Two worked examples are presented to illustrate the use of the Guide to determine the evidence of compliance required for the sourcing of structural steels for a warehouse and a high-rise office building in a region of high seismicity.

Download your copy of the [Guide](#) or a [Fact sheet](#) summarising the key points.



SCNZ BOOSTS RANGE OF LITERATURE ESSENTIALS



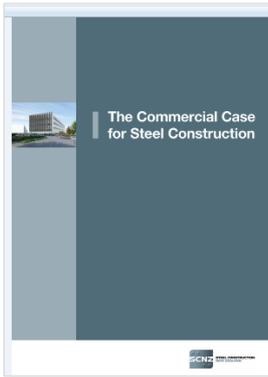
➤ ***NZ Guide to the Sourcing of Compliant Structural Steels***

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.



➤ ***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: July 2018**

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



➤ **The New AS/NZS 5131**

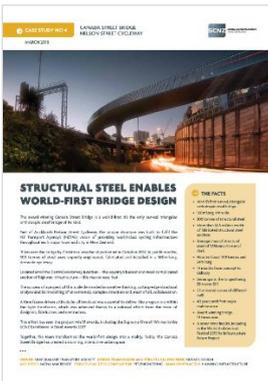
A brochure that provides an overview of the new AS /NZS 5131 Structural Steelwork standard and the implications for the industry in general; and Engineers, Builders and Fabricators specifically.



➤ **Case Study No.5**

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

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



- **Case Study No.4**
Case Study on the Canada Street Bridge / Nelson Street Cycleway Auckland.



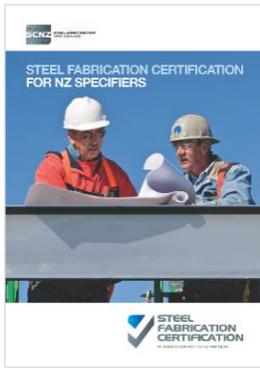
- **Fact Sheet: A Guide to Working with SCNZ and HERA**
A fact sheet defining the roles and services that both SCNZ and HERA provide for the industry.



- **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.

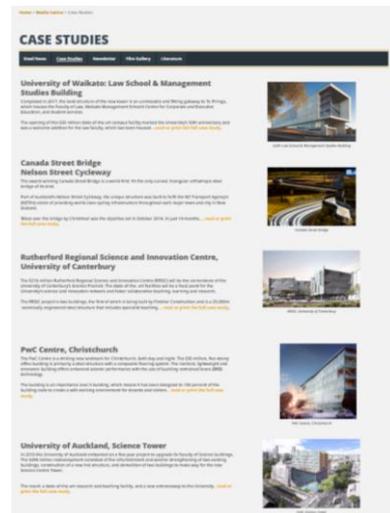
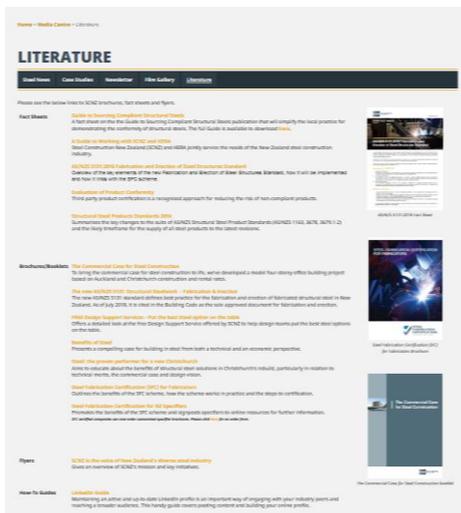


- **Fact Sheet: AS/NZS 5131:2016 Fabrication and Erection of Steel Structures Standard**
Provides an overview of AS /NZS 5131 for the industry in general.



- **Steel Fabrication Certification for NZ Specifiers**
 Outlines the Steel Fabrication Certification (SFC) scheme and the benefits of SFC for New Zealand specifiers particularly around risk reduction.

All this literature - and more - is available to download from the **SCNZ website** or please email us at info@scnz.org to request hard copies.



VALUABLE ONLINE RESOURCE FOR ALL MEMBERS

The online resource **Steel Advisor** gives all members access to a series of reference articles published regularly by SCNZ.

The articles cover a wide range of topics - shining a light into almost every corner of steel construction. Many of the articles are written by SCNZ staff in response to questions or issues that arise from enquiries and requests for information from our members. There are also articles from other recognised experts in various areas.

Two new articles are now available on Steel Advisor:

MAT1010 Practice Note on the Sourcing of Compliant High Strength Structural Bolts

The New Zealand Steel Structures Standard states that high strength structural bolts shall be supplied to AS/NZS 1252. This standard underwent a major revision and was published on 23 December 2016. The major technical changes incorporated in the new edition relate to updated testing and conformity requirements, the inclusion of the nominated European standard EN 14399-3 8.8 HR bolt as a “Deemed to satisfy” alternative and an additional European EN 14399-3 high tensile grade 10.9 HR.

A significant change to AS/NZS 1252 has been the creation of a new Part 2, entitled “Verification testing for bolt assemblies”. This represents a restricted form of third party conformity assessment, to provide confidence in products manufactured to AS/NZS 1252.1.

Feedback received from the New Zealand bolt distributors advised that complying with the increased product conformity requirements in the 2016 version of AS/NZS 1252 will take some time to implement. Supplying high strength structural bolts to the European standard is currently being considered by the industry as a better option. Time will be required to transition to the European Structural Bolt Standard.

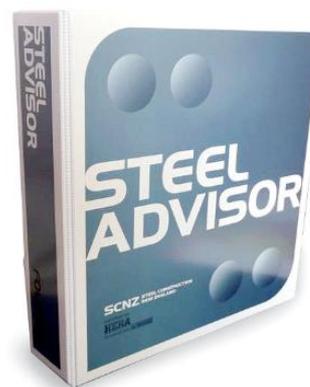
This practice note sets out the recommended practice for sourcing compliant high-strength structural bolts for the New Zealand construction industry.

MAT1011 Practice Note on the Sourcing of Threaded Rod Used for Foundation Bolt

Threaded bars are commonly used in the structural engineering industry as a replacement for long bolts as well as for concrete anchors and foundation bolts. This product is not covered under New Zealand Standard AS/NZS 1252 “High strength steel bolts with associated nuts and washers for structural engineering”.

This practice note is intended to provide information on the appropriate standard to specify for threaded rods used for foundation bolts and the recommended verification testing.

All SCNZ members can access this invaluable resource on our website - simply click [here](#) and log in when prompted.



BE INFORMED. INSPIRED. CONNECTED.

SCNZ is proud to present **Steel Agenda AGM and Conference 2018** on **Friday 28 September** in Rotorua.

Open to all, this year's event not only offers high-octane fun activities like sky swinging and ziplining, but also promises informative speakers providing relevant insights into current market conditions and opportunities.

The event starts with a Welcome from SCNZ Manager, Darren O'Riley. Darren will provide an update on the SCNZ 5-year Strategic Plan, which has been in place for one year and guides our direction and activities until 2020.

This is followed by the SCNZ AGM, chaired by Wayne Carson, Director of D&H Steel Construction and SCNZ Chairman.

The main Steel Agenda Conference will then kick off, featuring:

- **Speaker - Andrew Boyd, Senior Building Consent Project Manager, Auckland Council**
'Demonstrating compliant structural steel – We've never been asked that before?'
- **Economist – Mark Smith, ASB**
- **Keynote Speaker – Dale Williams**
Returning to Steel Agenda after his passionate and entertaining talk in 2017, Dale will update delegates on his endeavours over the last year, employment vs unemployment, Government employment initiatives and much more!

Upon the conclusion of Steel Agenda, delegates can jump on board one of the Skyline eight-seater Gondola cabins and experience spectacular views of Lake Rotorua, then master the luge tracks with some fast-paced freedom. Add on a Zipline and fly through the sky amongst majestic Redwood or face your fears and test your limits on NZ's only Skyswing for a major adrenaline rush!

The day culminates in the sparkling Gala Awards Dinner with the multi-talented entertainer, **Geoff Dolan**, acting as our Master of ceremonies and guest speaker **Mahé Drysdale** sharing inspirational messages from his sporting success.

Widely recognised as the industry's social highlight of the year, the evening concludes with the presentation of our hotly contested Apprentice of the Year and Excellence in Steel Awards.

A fantastic chance to celebrate success, exchange knowledge and develop enduring professional networks, this informative and inspiring event brings you all the best in one day.

For further details and costs please click [here](#).

Don't miss out! Secure your place at **Steel Agenda 2018** today.



NEW INDUSTRY CASE STUDY: STEEL AS THE BACKBONE TO TE PIRINGA

SCNZ has published a new **case study** on the University of Waikato, illustrating unique design features and clever use of materials.



Completed in 2017, the bold structure of the new tower is an unmistakable and fitting gateway to Te Piringa, which houses the Faculty of Law, Waikato Management School's Centre for Corporate and Executive Education, and student services,

The opening of this \$35 million state-of-the-art campus facility marked the University's 50th anniversary and was a welcome addition for the law facility, which has been housed in a temporary building since 1991.

The University envisioned an iconic structure that would become part of a legacy for the community and future generations of students. This was realised, along with the provision of world-class spaces and facilities, to create a student experience second to none.

SCNZ's University of Waikato Case Study Approximately 475 tonnes of structural steel worth \$2.9 million were required to build the architectural vision of Te Piringa. Structural steel contractor Bedford Engineering tackled the complex steel fabrication of the building using Tekla Structures, one of the most powerful modelling programmes in use around the world.

The software combined the architectural and engineering designs to build a comprehensive 3D CAD model with detail down to the last nut and bolt. Management information and production system Strumis was used to control inventory, optimise steel use, budget, and reduce waste.

“Steel is essentially the backbone of Te Piringa.” – Nick Wiley, Project Manager, Fletcher Construction.

Structural steel's strength was chosen specifically with the construction of the complex structure in mind. Steel was used to build a big truss at the top of the building and the rest of the materials were hung down off it like a bridge, meaning the building is not propped up by concrete columns. Structural steel also highlighted its advantage during the challenging construction of the new entrance to the existing University Management Building. Structural steel's precise prefabrication and flexibility made the time-critical build possible – steel sections were quickly erected in and around the existing structure and services equipment, forming the three-level building above ground in just five days

This case study is available to download from our [website](#).

NEW MEMBERS

SCNZ welcomed three new member companies during the last quarter ending June 2018.

- Professional (Engineer)**
BCD Group Ltd, Hamilton
Cheal Consultants Ltd, Hamilton
Spectrum Consulting Engineers, Wellington

EXCELLENCE IN STEEL AWARDS 2018 - FINALISTS ANNOUNCED

SCNZ received a record number of 34 entries for this year's Excellence in Steel Awards, which will be presented at the SCNZ Gala Dinner as part of Steel Agenda 2018 to be held in Rotorua on 28 September.

The preliminary judging process has now been completed and SCNZ is thrilled to announce the following finalists in each of the four award categories:



Project:

Submitted by:

Category: Stand-alone residential

- 5 Stables Drive
- Kowhai St Home Takapuna

John Jones Steel
Black Steel Mobile

Category: Under \$500k

- Rankine Brown Emergency Shoring
- Broadway Radiology
- Riverbank Mezz Box

Beca
GH Engineering
BCD Group

Category: \$500k to \$3m

- Emersons Brewery
- Smales Farm – Helical Stair
- Jacob's Ladder
- St Pauls Square Refurbishment
- Genesis Energy Office Development

Calder Stewart
D&H Steel Construction
Grayson Engineering
Whakatiki Engineering
BCD Group

Category: Over \$3m

- The Crossings
- Delegat Winery
- 20 Customhouse Quay
- SH1 Russley Road Upgrade

John Jones Steel
Red Steel
MJH Engineering
McConnell Dowell – Downer JV

These entries, spanning all four award categories, represent a wide range of projects and companies. SCNZ Manager, Darren O' Riley, comments: "Huge congratulations to the finalists – all the entries were of an impressively high standard making judging a real challenge. We look forward to showcasing these finalists at the SCNZ Gala Dinner and in the coming months."

The finalists are now required to submit more information for the final round of judging (which will take place in early September) to decide the winners of each category and the overall supreme winner.

Secure your place at the [SCNZ Gala Awards Dinner](#) at Steel Agenda AGM and Conference today.

CALL FOR COMMENT – MBIE CONSULTATION FOR PROPOSED CHANGES TO B1/VM1 AND B2/AS1

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

It's important that you have your say in these changes as they'll affect our industry.

They intend to:

Amend Verification Method B1/VM1, as follows:

- AS/NZS 2327: 2017 will replace Section 13 of NZS 3404.1 as the cited standard for the design of steel-concrete composite structures.
- Introduce NZS TS 3404: 2018, which will provide an approved compliance pathway for durability and avoid the need to justify alternative systems.

Amend Acceptable Solution B2/AS1, as follows:

- Add NZS TS 3404 as an acceptable solution for meeting the durability requirements of steel elements.

It's proposed the above changes will come into effect on 30 November 2018. However, the existing B1/VM1 (Amendment 16) and B2/AS1 (Amendment 9) will remain in force until 31 March 2019.

The introduction of AS/NZS 2327 expands on the information currently in NZS 3404.1 and **provides design information on a wider range of composite structures.**

A Preliminary Impact Analysis undertaken by the Australian Building Codes Board (ABCB) indicates that the use of this new standard will result in more economical, higher quality buildings using fewer building materials. Overall, reducing cost and environmental impact. ABCB have also signalled that AS/NZS 2327 will be referenced in the 2019 edition of their NCC. And, may be considered for use as part of a Performance Solution in the interim. As a consequence, it's important our members currently considering exporting composite products or services to Australia, comply with this standard.

Currently there's no means of compliance with Building Code clause B2 Durability for steel construction. Most often, compliance is demonstrated using Appendix C of NZS 3404.1 (which references AS/NZS 2312). This Standard is difficult for designers to interpret and generally requires specialist expertise. **NZS TS 3404** clarifies the application of AS/NZS 2312, meaning that more designers can specify corrosion protection systems. Meaning, this proposed addition to B2/AS1 will provide an approved compliance pathway, avoiding 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 applies with the building code. So it's important that you have our say.

To do this, MBIE has released a consultation document on the proposals. The deadline to supply written comments is before 5:00pm, Friday 21 September 2018.

The screenshot shows the MBIE website interface. At the top, there is a search bar and the MBIE logo. Below the logo, there is a navigation menu with links for 'Information and services', 'Law and policy', 'Publications and research', 'About MBIE', and 'MBIE A - Z'. The main content area features a 'Consultations' section with a list of consultations. The first consultation is 'Statement of proposals for amending Acceptable Solutions and Verification Methods 2018'. A prominent blue box indicates 'Submissions are due by 5pm on Friday, 21 September 2018'. Below this, there are links for 'Consultation document: Proposals to amend Acceptable Solutions and Verification Methods 2018' (PDF Document, 720kb) and 'Submission form for Proposals to amend Acceptable Solutions and Verification Methods 2018' (Docs, Microsoft Word Format, 36kb).

Have your say on the proposed changes - click here.

2018 CALENDAR OF KEY DATES

AUGUST

- 6th (w/c)** Finalists of Apprentice of the Year Award notified
- 16th** Builders Breakfast & Steel Structures Seminars, Christchurch
Chateau on the Park
- 22nd** Builders Breakfast & Steel Structures Seminars, Palmerston North
Hotel Coachman
- 23rd** Builders Breakfast & Steel Structures Seminars, Wellington
Cophorne Hotel Oriental Bay
- 31st** Apprentice of the Year face-to-face interviews and practical testing conducted

SEPTEMBER

- 27th** SCNZ Executive Council meeting
- 28th** Steel Agenda AGM and Conference
Millennium Hotel, Rotorua
- SCNZ Awards Gala Dinner, Apprentice of the Year and Excellence in Steel Award winners announced**
Blue Baths, Rotorua