# **STEEL FUTURES**



## Latest Industry & SCNZ News

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#### SUCCESSFUL SFC SCHEME EXTENDED AND IMPROVED



Since its launch in September 2014, 16 New Zealand fabrication companies have been certified under the SFC (Steel Fabricator Certification) scheme and five additional companies have applied to be audited. The 16 certified companies represents over 65% of the total New Zealand structural steel industry output.

The aim of the scheme is to reduce the compliance risk for engineers, builders, building officials, and building and infrastructure owners.

A number of important changes to the scheme were considered at the recent SFC scheme governance board meeting held in Auckland on 26 January. These included a proposal to extend the scope to include erection and coatings (the scheme is currently limited to fabrication only). Also reports by Hyland Consulting Engineering were tabled, following a peer review of the scheme's documentation and implementation.

At the board meeting the proposal to extend the scope of the scheme was approved. Important details such as the audit requirements, staff resource, audit costs and launch date will be confirmed by the SFC working group in the next couple of months. Watch this space for further details as they become available.

Former SCNZ manager Dr Clark Hyland was chosen to undertake the peer review because of his knowledge of structural steel fabrication and product conformity requirements. The subsequent reports made a number of recommendations (many of which will be actioned over the next year), including:

- 1. Broaden the make-up of the governance board to include external stakeholders (such as professional engineers and building officials).
- 2. Clearly communicate that the scope of the certification program is limited to quality systems and personnel (i.e. the companies are capable of manufacturing product to the required standard) and does not cover product certification for specific projects. There will still be a requirement for construction monitoring by a suitably qualified person to verify the work is to the required standard.
- Undertake research to investigate if the NDT requirements for certified fabricators can be reduced based on reliability analysis undertaken using weld inspection data from certified fabricators.
- 4. The steel Structures Standard (NZS 3404.1:2009) notes a lower level requirement for construction monitoring may be justified for a fabricator with an independently certified quality management system. The Hyland report recommends taking this matter up with ACENZ/IPENZ as there is potentially a saving in construction monitoring fees through a reduced construction monitoring requirement when using a certified fabricator.

If you are interested in finding out more about the SFC scheme, including reviewing the governance structure, please visit www.steelfabcert.co.nz.

## FINAL CALL - REGISTER NOW FOR QUEENSTOWN 2016



2016 marks the 10<sup>th</sup> anniversary of SCNZ and we are planning to celebrate in style.

Members will have already received a programme and registration form for our premier Queenstown Members' Forum & Social. This

event, which will be held at the Crowne Plaza Hotel in Queenstown on 1st April 2016, presents a great opportunity to combine valuable business experience with a fun and exciting weekend away.

We are thrilled to announce that New Zealand icon, **Tim Shadbolt**, will be joining our line-up of interesting and informative speakers.

As Mayor of Invercargill, Tim has been a colourful, often controversial figure in New Zealand's political scene for the past 20 years, and is one of the country's best known personalities. Known for his wicked sense of humour, he is a successful communicator and a very experienced afterdinner speaker.

Other confirmed speakers include:



Tim Shadbolt, Mayor of Invercargill

## Sir John Anderson (founder of Contiki)

A revered and humorous speaker with a remarkable story. As a successful business owner John has faced many challenges and will inspire you to move forwards and succeed

- David Moore (Grayson Engineering) & Stuart Oliver (Holmes Consulting)
  Case Study: an insight into Christchurch anchor project, The Justice & Emergency Services Precinct
- Worksafe NZ
  - Practical guidance to help you understand and meet your new obligations under the H&S Reform Bill
- Dean Pouwhare (D&H Steel Construction)
   Update on Rigger Qualifications.

SCNZ is also delighted to welcome and thank Steltech, who join Dimond and One Steel as major sponsors for this event.

As well as a great programme and opportunities to network and enjoy dinner with your industry peers, the event will give you the opportunity to enjoy the unforgettable Queenstown jet boating experience. The KJet skims just above the deep crystal blue waters of Lake Wakatipu, followed by the Kawarau River then Shotover River, interjected with the fun 360 degree spins that the boats are specifically designed for.

To help further strengthen your business connections, we are also opening up the event to your key industry clients – please feel free to extend the invite and bring along clients as your guests.

## \*\*\*Breaking News\*\*\*

SCNZ will be announcing an exciting new industry initiative at Queenstown 2016. Watch this space for more information.

Interest in this event has been high, and flights and accommodation are getting booked up fast. So if you are interested, don't delay!

For more information and to register, please visit www.scnz.org and click on the SCNZ 10<sup>th</sup> anniversary link to download the electronic registration form.







## INTERACTIVE EVENT APP LAUNCHED

With the Queenstown Members' Forum & Social Event just around the corner, SCNZ is proud to announce the launch of an app to improve the event experience for delegates.

The app will ensure you get the best possible experience from your visit to Queenstown, by enabling you to stay in touch with the latest conference news, find out more about who is speaking and connect with industry colleagues.

We strongly encourage all delegates to download our mobile guide which will include programs, speaker bios, message boards, maps, etc. The app can be used to take notes, bookmark speakers and contact the event organisers.

We are not planning to print any conference material in hard copy format, so make sure you bring your smartphone to allow you to view all the latest event information on the app.

## To get the Queenstown app:

- 1. Go to the App store on your mobile device. Search for 'SCNZ' and download the free 'SCNZ 10 Year' app.
- 2. Open the SCNZ 10 Year app and create a profile.
- 3. Click on the Menu in the top left hand corner of the screen to build your own personal schedule, find out more about our speakers, get information about Queenstown, and more!

Don't delay – download the app now and start planning your event experience today.

## SCNZ'S POSITION ON GOVERNMENT PROCUREMENT

It is estimated that the New Zealand Government is responsible for procuring goods, services and works (construction and infrastructure) worth approximately \$40 billion, or 18 per cent of New Zealand's GDP, every year. Recognising the significance of this spend to our economy, the Government Rules of Sourcing (the Rules) were first published in October 2013 and the third edition came into effect on 1 July 2015.

However, the Rules and the five Principles of Government Procurement (the Government's procurement framework) is not producing the desired outcomes for Kiwi businesses or NZ Inc. In particular, balanced decisions are not being made, even though all government agencies are required to do so. As a result, many government tenders are still being evaluated on upfront cost alone and not taking into account social, environmental and economic factors as specified in the 4<sup>th</sup> Principle.

The inevitable outcome is that local industry and the New Zealand economy are missing out on a share of the Government's annual \$40 billion procurement programme.

SCNZ has engaged lawyers Chapman Tripp to advise on the Government's procurement obligations; we've also established a dialogue with the Ministry of Business Innovation and

Employment (MBIE) to push our message, which is simple: in keeping with the spirit of the procurement framework, SCNZ wants to see all government agencies follow a fair, transparent and competitive tender process. SCNZ is advocating for:

- Clear guidance to be given by MBIE to all government agencies on how to apply the Principles;
- The 4<sup>th</sup> Principle on balanced decision-making to be enforced;
- All agencies to be held to account for their procurement processes and decisions; and
- Amend procurement rule 22 to apply to subcontractors when their value is 10% or greater of the total contract value.

Notably, rule 22 currently does not require the rules of procurement to be cascaded down to subcontractors. This is particularly relevant to construction where the value of head contractors' work may only be 10-15 per cent of the contract value.

Essentially, we want what's best for NZ Inc. in the context of our international trade obligations, including our Free Trade Agreements (FTAs) and the World Trade Organisation Government Procurement Agreement. We support policy that benefits our industry and the country's economy as a whole, especially if it leads to improved productivity and competitiveness, and the creation of more skilled jobs. So we support the overall intent of the Government's procurement framework, but we want to see to the government agencies use the latitude they have within our FTAs to recognise balanced decision-making.

It is our view that if the Government's procurement framework is implemented as intended then greater economic benefits will flow, not just to our members, but also to the country's construction industry and to NZ Inc. as a whole.

We encourage all SCNZ members to promote our industry position on the Rules. To help with this we have developed a position document, which is available on our website. We invite you to add a link to the document which is available at www.scnz.org, upload a post about it to your LinkedIn page, and refer to it in any communications with your local MP. We need to keep the pressure on!

## WATCH OUT FOR OUR NEW LOOK WEBSITE

We are delighted to announce that SCNZ will shortly be launching a new website as part of our ongoing efforts to enhance the quality and availability of information to industry and our members.

The new site will offer quick and easy access to essential information about steel design and construction.



Home page of SCNZ's new website

Alistair Fussell, SCNZ Manager, comments: "The aim of our new website is to be a 'one-stop shop" for busy people and to promote business excellence in the steel construction sector.

"We have packed it with technical resources designed to support engineers, builders, architects, fabricators and quantity surveyors develop outstanding practices and strengthen performance. Areas specifically tailored to meet the needs of each of these groups are clearly accessible from the home page, so you'll always be able to easily find helpful and informative resources relevant to you."

Your nominated company representative will receive log-in details to access and update your company profile on the new site. If you have previously purchased an online technical resource, you will also receive new log-in details prior to launch.

Please let Rebecca Symonds, Marketing Administrator, (rebecca.symonds@scnz.org) know if have any problems accessing the site, your company profile or our technical resources when the site goes live.

## FABSEC F-BEAM SOFTWARE REMAINS FREE TO NZ USERS

We are pleased to confirm that New Zealand welded beam stakeholders have been successful in securing funding for the continuation of the Fabsec licence arrangement for 2016.

Last year, at least 6,000 tonnes of welded beams were fabricated, a substantial portion of which were composite floor beams, and an increased trend is already showing for the current year. With a total of 159 individual licenses issued in New Zealand, Fabsec FBEAM® design software is a widely-used package that produces efficient steel designs.

No doubt many SCNZ members are aware that prior to 2015, New Zealand structural steel designers had free access to the FBEAM® software, thanks to D&H Steel holding an exclusive licence from Fabsec to manufacture its beams in New Zealand.

To ensure wide spread acceptance of Fabsec custom welded beams, D&H Steel decided not to exercise its exclusivity rights and permitted others to manufacture Fabsec beams. This was unsustainable and without the ability to recover the licence cost, last year D&H Steel advised that the company would be discontinuing the licence.



However prompted by industry users, a HERA-led software user working group began to explore the situation. The original expectation of the working group was that during 2015, other software options would become available, having both welded beam and web penetration design capabilities.

In this regard, OASYS Compos is available as a commercial software programme and the Westok

Cellbeam software is freely available from Grayson Engineering. A condition with the latter is that, as licence holder, beam supply is solely by Grayson Engineering.

While alternative design software is available, the working group also recognised that a number of designers are using, and would like to continue to use, FBEAM®. As a result, the group recommended exploring sourcing another year of industry sponsorship to continue funding the FBEAM® license for New Zealand users.

The sponsorship of the considerable 2016 FBEAM® license fee is led by a major contribution from NZ Steel/Steltech. The funding is complemented by a local steel plate supplier, New Zealand welded beam fabricators, composite decking suppliers, steel construction companies together with committed local consultants already using the software.

HERA Director Dr Wolfgang Scholz says: "The collective industry effort to sponsor the free license of the widely-used Fabsec F FBEAM® software for another year is an outstanding result, demonstrating that the New Zealand steel construction industry is supporting innovative and cost-effective steel construction solutions."

"Being able to offer designers the free use of leading software which allows competitively priced tailored welded beam solutions based largely on a free choice local welded fabrication using local steel plate, is a must-have capability of our steel construction supply chain," said Wolfgang.

"HERA and SCNZ invite steel construction designers not familiar with welded beam design to have a go with the available New Zealand composite beam design software solutions."

For more information about the Fabsec FBEAM® design software and to request your required version, please click here.

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## DEVELOPMENT OF INDUSTRY GUIDANCE ON STRUCTURAL FIRE DESIGN OF STEEL FRAMED CAR PARK BUILDINGS

As discussed in the October issue of Steel Futures, SCNZ has been working with an industry working group of leading fire experts (practicing fire engineers and academics) to develop a performance based method for the structural fire design of steel framed car park buildings.



Westfield Riccarton Carpark, Christchurch

Recent changes in the implementation of the current NZBC C/AS7 have increased the fire resistance rating requirements for structural elements of car parking buildings, meaning the elements would need to be protected with expensive passive fire protection. This would greatly diminish the cost competiveness of steel solutions for such buildings.

Based on extensive research undertaken in Europe and Australia and on similar methodologies developed in Europe, the method developed by the industry working group can be used to quantitatively demonstrate that the beams within a typical multi-storey steel framed carpark can be unprotected.

The method is a means of applying C/VM2 Framework for Fire Safety Design and removes the artificial distinction between open and closed car parks. It also provides design car fire scenarios for sprinklered and unsprinklered car parks that logically take into account the effectiveness of sprinklers reducing the probability of a fully developed car fire occurring.

The methodology involves the analysis of the capacities of composite steel beams under exposure to realistic vehicle fires. This approach removed the assumption of full compartment involvement that is assumed by other, simpler methods. The localised thermal loading on parts of the structural beam, localised loss of strength of the beam and redistribution of actions to others are also included in the analysis.

SCNZ/University of Auckland SPM software has been used to develop this method further, to include how slab two way action is used to redistribute actions. This is particularly necessary to show that primary beams can be left unprotected.

SCNZ is currently working towards getting the guidance recognised by the Ministry of Business, Innovation and Employment (MBIE), which is an important step towards acceptance by peer reviewers in Building Consent applications.

What this means for engineers: if you are being told by your fire engineer that you need a high fire rating for a steel framed carpark building, you now have access to a straightforward solution that will significantly reduce fire rating requirements.

What this means for fabricators: if you are involved in projects where excessive fire rating is being specified for steel framed carpark buildings, you should alert the engineer to this method and ask them to contact SCNZ for more information.

SCNZ engineers can provide you with assistance to implement this new alternative method. Please contact Kevin Cowie, Senior Structural Engineer (Technical) on email:

## **PSSC'16 - FINAL CALL FOR PAPERS**

This year's Pacific Structural Steel Conference (PSSC'16) takes place on 26-28 October in Shanghai and a final call for paper abstract submissions has been made.



All abstracts should not be less than 300 words and must be submitted by the **29 February**. The deadline for the submission of final papers is the **30 June**. The abstract and the author information should be submitted in accordance with the format available on the official conference website.

Papers on a wide range of topics are welcomed including new-type steel structural system; seismic, wind, corrosion and fire-proof research; stability, fatigue and fracture; theory on calculation of steel structure; design concepts and methods; connections; codes and standards, etc.

Organised by the China Steel Construction Society (CSCS), the PSSC has become the most influential global event of the steel construction industry. It brings together experts in structural steel research, design, education, manufacture, construction, equipment and material suppliers from all around the Pacific Rim and beyond to promote cooperation and the communication of technical information in the field of steel construction between member countries of PSSC and other countries

As an academic and technical communication platform, PSSC has received the affirmation and support from the Asia-Pacific countries and global peers.

In October 2016, Shanghai is embracing the grand gathering of the steel construction community with the 2016 Pacific Structural Steel Exposition (PSSE'16) to be held concurrently with PSSC'16.

For further information on PSSC (including further details on paper submissions and how to register as an overseas visitor), please visit www.pssc2016.com.

## LINK UP WITH SCNZ

To coincide with the launch of our new website, SCNZ has also launched a LinkedIn page.

Our entry into the social media sphere is part of a series of changes to help us communicate

more effectively and to enhance our services. Communicating our fantastic work effectively is very important as we strive towards our goals of growing the demand for structural steel in New Zealand, meeting the challenge of imported steel and developing world-class fabricators.

The new page features our new short films, which explore the many benefits of steel and advocate the use of New Zealand steel fabricators, and will also play host to new case studies, event information and news throughout the year.

Don't be shy,



### STEELCON CAREERS ON THE MOVE

**The Careers Coach** started a six week roadshow, travelling around Northland schools and festivals, on 30 January in Kaikohe.

SCNZ is on board as a key sponsor and the state-of-the-art Coach boasts 26 touch screen units packed with careers information, which showcase the wide range of options and career paths available to school leavers. There's been great interest from whole communities, not just schools, and

several mayors have dug into their funds to help get it to their region. To find out more about where the Coach will be in the coming weeks, please click here.

Chris Burns, Senior Structural Engineer (Industry), is putting together a new SCNZ working group for **Careers, Training &** 

**Education**. This is to support the SteelCon Careers Initiative, which aims to come increase the number of, and quality of, people coming into our industry by engaging with school leavers, training organisations and careers advisors. The purpose of the working group is to provide knowledge and expertise in updating and clarifying qualification/skills pathways, making this whole area more transparent.

The first meeting of the working group is scheduled for March and more updates will follow shortly. Feedback about your successes, frustrations, tips and initiatives is extremely valuable as it helps paint a picture of what's working, flag up consistent problems, and find solutions.

If you are interested in getting involved or have any feedback or ideas, please get in touch with Chris Burns (email: chris.burns@scnz.org or phone: 09 262 6684).

## **NEW REPORT TO BOOST MARKET CONFIDENCE**

Watch out for SCNZ's new half-yearly report, "Structural Steel Industry Snapshot", which will regularly provide data on crucial issues such as industry capacity, lead times and structural steel market share.



SCNZ Manager, Alistair Fussell, comments: "The construction sector is experiencing the biggest building boom in 40 years. However, there has also been a greater number of bids from overseas' fabrication companies. As an industry, our challenge is to convince clients that we have the capacity to satisfy demand; if we fail to do so, we risk driving clients to source offshore supplies.

To address this concern we will be regularly sourcing solid data on the structural steel market to give a snapshot of the New Zealand structural steel industry, enabling all our stakeholders to make informed decisions."

### **NEW MEMBERS**

SCNZ welcomed six new members during the fourth quarter ending December 2015.

## **Associate (Detailer)**

iModel Steel Detailing, Palmerston North

## **Professional (Engineer)**

CHP Consultants, Wellington TM Consultants, Christchurch W2 Engineering Ltd, Christchurch

## **Associate (Erector)**

Ironworkers NZ Ltd, Auckland

## **Full (Constructor)**

Bromley Steel, Christchurch

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