

STRUCTURAL STEEL

⇒ INDUSTRY UPDATE



Market update – 40% spare capacity

While there has been much talk about investing in ‘shovel-ready’ projects to fire up the construction industry, its workforce and the economy, there needs to be equal consideration of vertical construction alongside horizontal infrastructure projects. Why? Quite simply because vertical construction employs far more people than horizontal projects per dollar spent.

However, 80 percent of the vertical sector is privately funded and many projects have been terminated or put on hold due to COVID-19. The \$2b that Auckland Airport planned to spend on a second runway, new domestic terminal and international arrivals hall, and other projects is one example of significant private work that is now not going ahead. It represents the loss of 350,000 hours of work in the steel trade alone.

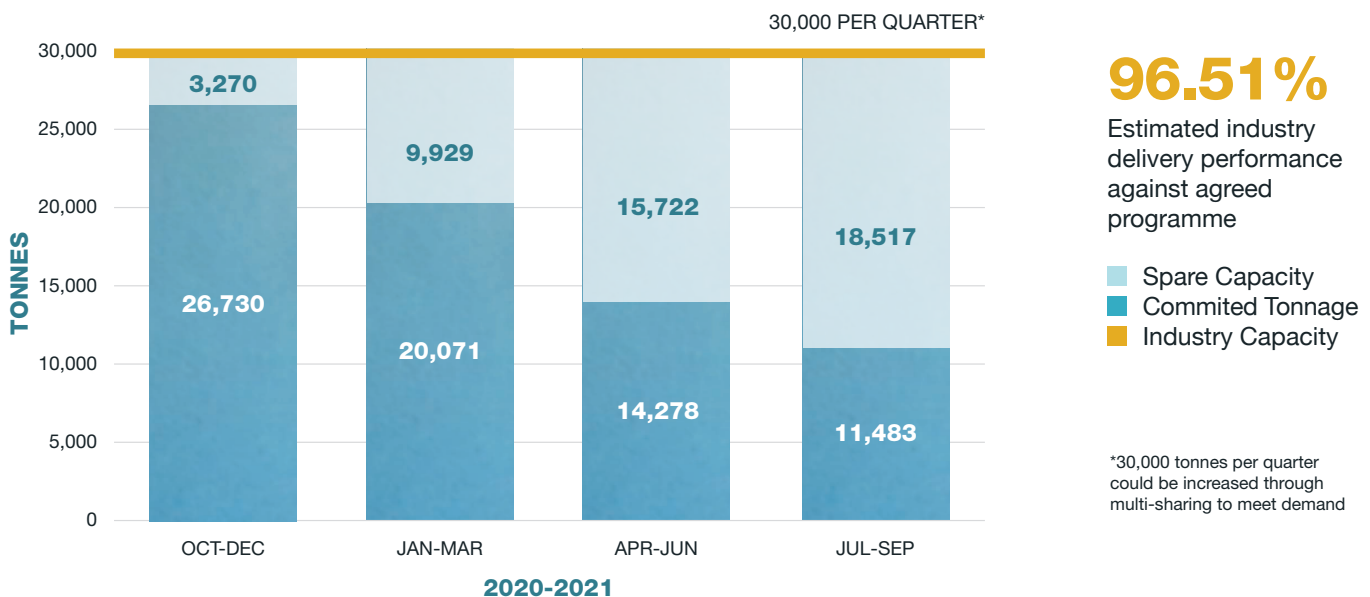
To stimulate the sector the Government needs to create confidence in the pipeline by providing more certainty. It can do this by accelerating projects such as Dunedin’s new \$1.4b hospital, which is currently awaiting Cabinet approval. It’s a great example of a future-focused vertical project that will add long-term value to New Zealand.

The ‘5Cs’ – the steel advantage

CAPACITY: Our local structural steel industry is well equipped to cope with a spike in demand. The industry has proven capacity to deliver on all projects – there is no need for procurers to go offshore to source the material. In the past 12 months the New Zealand structural steel sector turned approximately 100,000 tonnes of structural steel into buildings and bridges through its network of steel distributors, fabricators and erectors. SCNZ’s latest quarterly fabricator forward-workload survey indicates there is significant spare industry capacity for the year ending June 2020 – estimated at 40 percent, based on a current estimated total capacity of 120,000 tonnes per annum.

SCNZ Estimated Fabrication Tonnages (per quarter)

SCNZ structural steel fabricators identified approximately 39 projects that have been cancelled due to COVID-19. These range from residential to large commercial projects and represent approximately 3.4 percent of industry annual volume. Similarly, close to 74 projects have been delayed or deferred, representing approximately 7.4 percent of the industry’s annual volume.



CAPABILITY: Our structural steel industry has proven capability to handle a range of construction projects, demonstrated through our commitment to innovation and to upskilling local fabricators. It means our industry has not been impacted by a skills shortage or supply chain issues as a result of COVID-19.

Thanks to our industry's investment in R&D and innovation, local structural steel fabrication capacity has increased from 20,000 to 120,000 tonnes over the past 20 years and led to world-first advances in seismic load-resisting systems and performance-based fire design. Our industry is also committed to developing the skills of our people: 9.1 percent of the total workforce employed by local structural steel contractors are in a training programme, and 69 percent of structural steel contractors employ an average of four apprentices.

COMPLIANCE: Quality and compliance are at the core of SCNZ activities and vital at a time when we cannot rely on the performance of imported product from low-cost economies. SCNZ's industry-led quality scheme Steel Fabrication Certification (SFC) ensures that participating structural steel contractors have international best-practice personnel and quality management systems in place. 90 percent of the sector's annual output is now delivered by SFC-qualified fabricators. SCNZ's Structural Steel Distributor Charter complements SFC by ensuring that structural steel is sourced using best-practice procurement. All six SCNZ Distributor members have been independently audited to satisfy the requirements of the Charter.

COMPETITIVE: Structural steel is a cost-effective building solution. Investment in fabrication technology and workshops, and the modern approach of simple bolted connections, has improved productivity in New Zealand's structural steel industry. Overall construction programmes for multi-level commercial projects using structural steel are generally 10-15 percent shorter compared to other materials, thanks to the efficiency of off-site manufacturing and fabrication, and 'just in time' deliveries.

COLLABORATION: Our highly collaborative network of 127 fabricator companies has proven ability to meet demand, regularly partnering with each other nationwide – and with the head contractor and lead consultants as part of the Early Contractor Involvement (ECI) procurement model – to ensure a project is delivered to a high standard, on time and on budget. From the get-go, ECI allows our fabricators to add value to the design team by helping to explore buildability, timeframes and risk. The approach delivers projects that carry much less risk, enjoy fewer variations and are typically better planned.

Industry who's who

MANUFACTURERS (steel mills) produce structural steel products, including hot-rolled elements (I beams and columns, channels, plate and angles) and hollow sections (circular, rectangular and square).

MERCHANTS / DISTRIBUTORS import steel for use in the construction industry. Such companies have extensive warehousing facilities to carry a large inventory required to service market needs and provide limited pre-processing of structural material prior to fabrication.

STRUCTURAL STEEL FABRICATION COMPANIES physically prepare the structural steel for a building or bridge through a process of developing detailed drawings (the work of a detailer) based on the construction drawings provided by a structural engineer. They are responsible for material management, cutting, drilling, shop fitting (bolting or welding), painting and galvanising (when required), and shipping.

ERECTORS assemble the structural steel members into a structural frame on the project site by bolting and field welding structural steel components together according to the construction documents. In New Zealand the fabricator will typically manage the erection process of their steelwork either through the use their own rigging crews or subcontracted resource.

For more information about who's who in structural steel, visit scnz.org and steelfabcert.co.nz

Key industry facts

In the past two decades demand for structural steel solutions has grown substantially. Today, structural steel's share of the multi-level construction market is more than 50 per cent nationwide. In Christchurch, due to structural steel's strong seismic performance its market share is over 80 per cent – up from virtually nil before the Canterbury earthquakes.

Market share: 50 percent nationally and 80+ percent in Christchurch

Annual output: circa 100,000 tonnes in the past 12 months

Structural steel fabrication companies: 127 nationwide

Current annual capacity: estimated at 120,000 tonnes, which could be increased by multi-shifting to meet demand

Material certification: approximately 85 percent of steel used by New Zealand's structural steel sector is third-party certified

Employment: approximately 5,000 workers

Industry investment: significant investment in several new state-of-the art workshops since 2007

Fabrication certification: 50 structural steel fabrication companies representing 90 percent of the sector's annual output participate in independent quality assurance scheme SFC.



For information about becoming a member, contact:

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