



# PRECASTERS WITH DIGITISED QA DELIVERING PRODUCTIVITY GAINS TO CIVIL SECTOR

**W**hile civil construction has been used as a post-COVID economic stimulus, labour productivity in the sector has made few gains. While other industries have made improvements, civil construction has been left behind and waste is at an all-time high.

A 2014 Productivity Commission enquiry into Public Infrastructure Costs exposed three possible measures for the broader construction industry to reduce waste and each is equally applicable to civil construction. The first was better procurement and project management skills. The second was improved supply chain integration and importantly. The third possible measure was using technology to enhance project outcomes.

Regarding the first two, precast concrete offers immediate benefits.

Precast has long been recognised as way to deliver productivity benefits. Manufactured in purpose-built factories, it has all the benefits associated with offsite manufacture, such as improved quality, safer working conditions, less cluttered and safer sites, faster construction and cost savings.

Supply chains are improved with teams working together to benefit projects. Head contractors and major subcontractors – like Master Precasters – creatively problem solve to address and overcome engineering, logistic and programming challenges.

As builders examine precast manufacturing methods, they are increasingly finding that technology is being utilised to improve quality management, which has benefits for both the precaster and the head contractor.

Master Precaster Hudson Civil has engaged digital software company CONQA to introduce transparency into their quality systems to improve internal productivity while its clients are realising the benefits of digitising.

Located in Launceston, Tasmania, the Master

Precaster has been manufacturing precast infrastructure elements for civil, mining, building development and rural projects for over 20 years and has become one of the leaders in major precast products and innovative design.

National Precast CEO Sarah Bachmann says that before going digital, the company already had a robust quality management system.

"That is one aspect of the comprehensive Master Precaster audit," Bachmann says.

"Hudson's quality system ensures that engineering design intent is achieved. There's a particular focus around reinforcing requirements and Australian standards, to reduce risk across the board and to maximise production efficiency."

Hudson Engineering Officer Michael Ross reports that Hudson has recently transitioned its system from a traditional paper-based system to a digital system.

He says that being guided by CONQA made the process simple.

"Our paper-based system worked well and we had minimal quality issues, but going digital has taken it to another level," Ross says. "Paper had its limitations. There were always the challenges of documents being misplaced or damaged, and they were difficult to consolidate."

"This is easy for our guys to use, but more importantly, it brings everything out into the open. It gives our clients access to the documentation and processes we are happy to share, and that would have otherwise taken hours to compile. Our clients are happy as they are kept informed of progress and gives them confidence, we are on top of everything."

Bachmann says that the current demands on civil construction head contractors and major suppliers – combined with labour shortages – mean that the Association's members and other construction



Digitalisation has helped one Master Precaster to streamline its processes and project delivery.

stakeholders need to be as efficient as possible.

"More than ever, all stakeholders need to be addressing productivity and making more use of offsite manufactured products. Also critical is investing in upskilling workers, better time management and improved practices. Robust quality control systems are essential and need to be transparent across the board, from the developer down, and that requirement logically flows on to precast manufacturers. Accountability and transparency are key," she says.

"Using precast manufactured by audited Master Precasters – especially those who have invested in digitised QA – is reaping rewards, and manufacturers and clients are wrapped with the results." ■