

MONKEYTOE EBOOK 7

**BETTER  
TOGETHER:  
KEEPING IT  
UNDER ONE  
ROOF WITH  
MONKEYTOE**

Monkeytoe

EVERYTHING BETTER



## A NOTE FROM THE DIRECTOR

Over the years, we've talked about the ways that increased efficiencies, new technologies and innovative designs are transforming the construction and architecture landscape.

The pursuit of better solutions for our clients has driven us since day dot. That's why I'm proud that Monkeytoe has built – and continues to build worldwide – a reputation for excellence across the board.

From initial consult to scoping, design, manufacture and install, we're big believers in the idea that if you're going to do it, you've got to do it well. And if you're going to do it all, you'd better be sure that you're going to get all of it right.

The proof's in the pudding, as it were. Architects, engineers, builders and building owners alike worldwide trust our total consultation-to-installation services and design specialists, and our ability to make complex access challenges simple.

That's because we do it all under one roof. We don't waste time and our clients' budgets outsourcing when we simply don't need to. Our experts in design, materials, manufacture and installation are working together daily to deliver exceptional solutions for our clients, no matter their project or challenge.

Read on to find out more about why we're better together.



**Tim Prestidge**  
DIRECTOR OF MONKEYTOE



# BETTER TOGETHER: KEEPING IT UNDER ONE ROOF WITH MONKEYTOE

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Monkeytoe

**WE'RE MORE INTERESTED  
IN GETTING IT RIGHT  
ACROSS THE BOARD.  
BECAUSE CONSTRUCTION,  
DESIGN AND ARCHITECTURE  
PROJECTS HAVE THE  
POTENTIAL TO QUICKLY  
BECOME COMPLEX**



BETTER TOGETHER: KEEPING IT UNDER ONE ROOF WITH MONKEYTOE

## INTRODUCTION

If our work in the building, design and engineering industry has taught us anything, it's the importance of working to our strengths. Especially when that comes to delivering great solutions.

Some businesses out there come to realise this too, recognising the advantages of dealing with companies that know what they're doing – and who do it well. While that might be just a supplier who's mastered the design of one product and then hand it over for manufacture and another for install, we know that this comes with its own set of challenges.

We're more interested in getting it right across the board. Because construction, design and architectural projects have the potential to quickly become complex, we believe that oversight over every part of a project – from consultation to installation – can make the difference between failure and success.

Our systems are trusted worldwide by architects, engineers and building owners. Monkeytoe tackle and solve access challenges, no matter how tricky, and its own approach that sets us apart.

The Monkeytoe advantage is just that. Not just better efficiencies, better products and better designs, but also comprehensive solutions that make our clients' jobs easier.

From the first stages of a project to the day it gets handed over, and from plant platforms and mounts to louvre screening and acoustic barriers, we believe that having one team handle it all is the right way to go.

Everyone wants good. From consult to install, we deliver everything better. That's the Monkeytoe advantage.



## CONSISTENT, EXCEPTIONAL QUALITY

#01

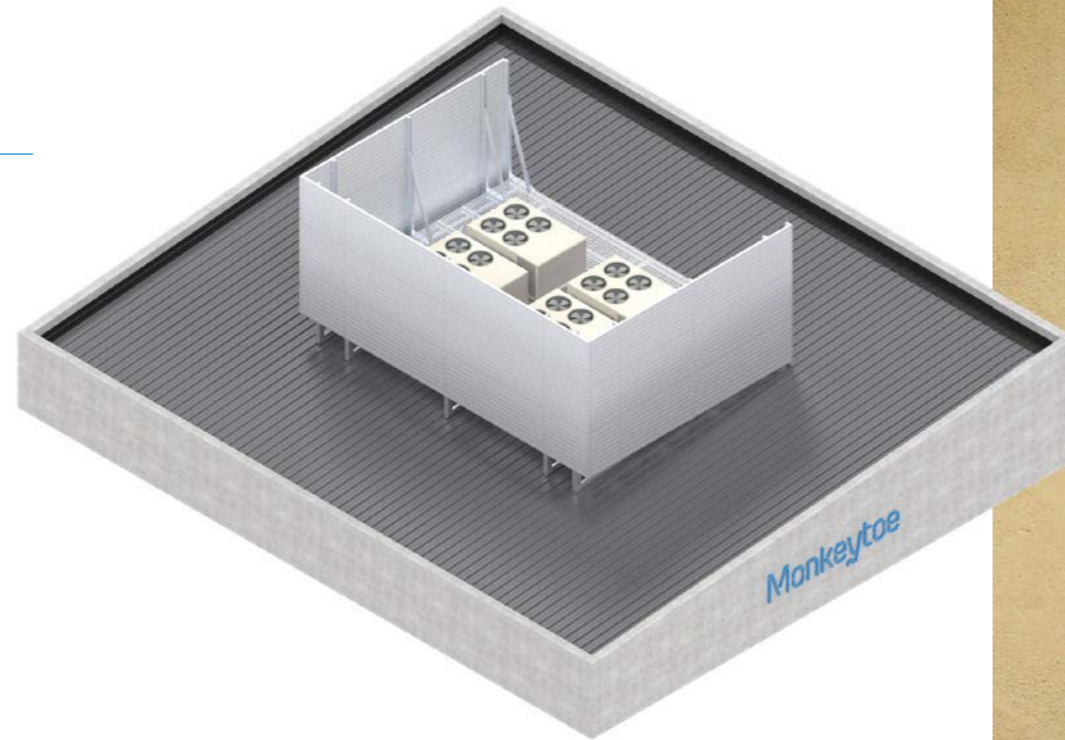
Since Monkeytoe designs, manufactures and installs a complete range of aluminium mechanical structures for rooftops and industrial sites, we know how critical it is to get every bit of the process right.

Monkeytoe combines integration and application of new technologies to provide seamless control over quality and consistency.

### ALUMINIUM & BEYOND

That starts with our aluminium solutions, including beams, platforms and Hushmonkey panels. Aluminium has long been seen as a premium, quality product, but now its versatility is really being realised. It's an abundant metal with incredible performance against corrosion; it's lightweight, so easier to install; it's endlessly renewable and it lasts a lifetime.

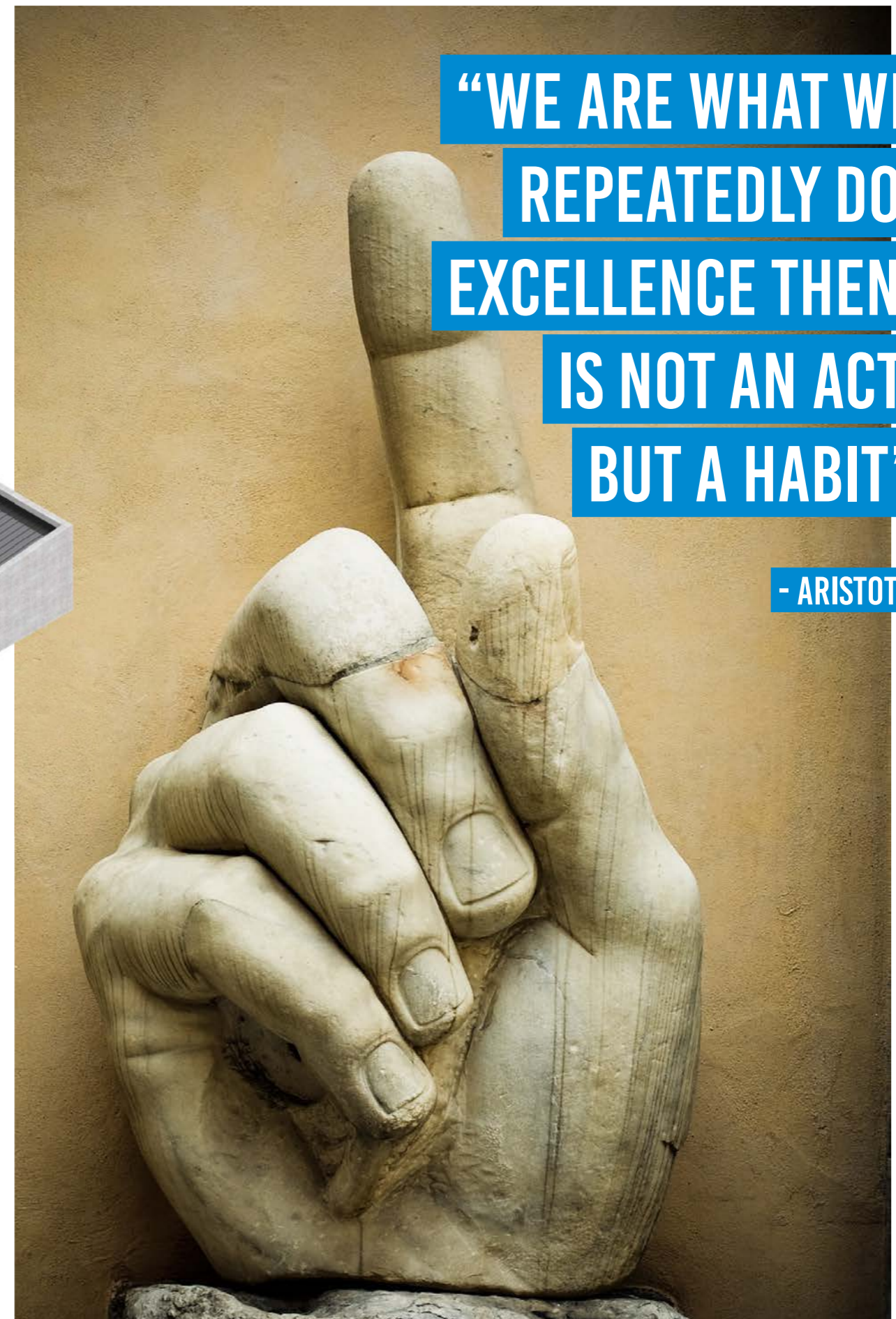
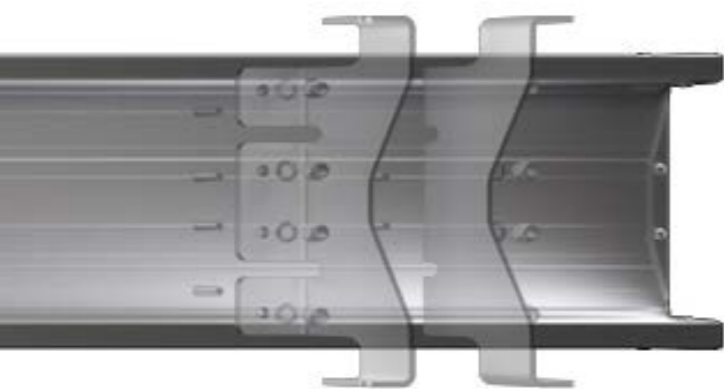
Where steel had once dominated the building industry, aluminium can offer great new solutions where lighter, more resilient solutions are needed.



### OUR FLAGSHIP XBEAM

But our quality and manufacture of course extends to our newer offerings including the **XBEAM**, a unique combination of marine-grade high tensile T6 aluminium with the unparalleled directional strength of carbon fibre reinforcement to produce a beam that's up to 65% lighter than steel.

It can also span more than 10 metres while supporting greater loads than traditional steel beams can. This beam is almost twice as strong as steel, yet a fraction of the weight.



“WE ARE WHAT WE  
REPEATEDLY DO.  
EXCELLENCE THEN,  
IS NOT AN ACT,  
BUT A HABIT”

- ARISTOTLE



NINE BETTER EFFICIENCIES WITH MONKEYTOE & XBEAM

## MARAETAI DAM: FROM CONSULT TO DESIGN, MANUFACTURE AND INSTALL

#02

Maraetai Dam is the largest hydroelectric station in the Waikato region of New Zealand's North Island, rated for around 360 MW of power for Meridian Energy, and has been generating renewable power for the Waikato since 1952. Once every three years, engineers have to look into and replace packing within expansion joints in the penstocks that control water flow to the turbines.

It's no small feat. The Maraetai Dam sees around 340 cubic metres of water flow through the ten penstocks every second. With this much surging water to control, ensuring the inspection goes off seamlessly is paramount for the safety of the engineers.

It's a high-risk job. Historically, Maraetai Dam engineers would set up scaffolding and complete the works at height – and above water. But working with temporary solutions can be tricky and prone to insecurities. For a major maintenance activity (called "Class 3" in the industry), Maraetai needed something better.

When Maraetai and Mercury Energy approached us at Monkeytoe, we jumped at the chance to help. We'd previously done smaller works with them, largely around access and done our best to integrate into their existing processes, procedures and structures to minimise disruption and help them get the solutions that would best suit their needs.

Nick Marshall is a Production Engineer in the Hydro Generation Group who looks after Whakamaru and Maraetai power stations.

He was impressed by our ability to provide Maraetai with a solution that'll see them get easy access for years to come. The high-risk work of setting up scaffolding to look into the replacement of packing within the expansion joints on the penstocks is now far easier and

safer with their custom Monkeytoe ladder and platform access solution. We've helped cut risks for them, and provided them with a fixed, safe and permanent solution.

"What I love about this solution is that it removes the necessity of erecting scaffolding on a temporary basis, and enables us a permanent access method to do inspections and perform maintenance on those expansion joints," says Nick.

The aluminium-based structure also won't need any ongoing maintenance like a steel access would require in such water-prone conditions.

**"WHAT I LOVE ABOUT THIS SOLUTION IS THAT IT REMOVES THE NECESSITY OF ERECTING SCAFFOLDING ON A TEMPORARY BASIS"**

They came to us with a problem, and we were able to work with them to provide the ideal solution.

"Originally, we'd had a pretty standard design that we'd looked into a few years back conceptually,

Says Nick. "Monkeytoe looked at that, then came out to site and did their own assessment of the problem and took their own measurements. They came back with a much sleeker and more practical design as well. Very easy to work with."

## SPECIFICATION FLEXIBILITY & CUSTOM DESIGNS

#03

Whether you need an off-the-shelf solution, have a difficult space to reach, or need bespoke designs generated, our ability to find and tailor solutions to client specification is what's gotten us head and shoulders above others in the industry.

Our custom design process is the peak of our in-house processes, encompassing everything from consultation to installation.

Sometimes they're talking to architects about how to maximise space with lighter, stronger solutions like the XBEAM; they might be visiting sites to scope measurements; or they're talking with the installation team to ensure it comes together just right.

As specialists in custom access and mounting, we can quickly provide a smart, economic and comprehensive design. Our end-to-end service encompasses design and documentation, manufacture and installation, through to code compliance.

**“THE MORE YOU ENGAGE WITH CUSTOMERS THE CLEARER THINGS BECOME AND THE EASIER IT IS TO DETERMINE WHAT YOU SHOULD BE DOING.”**

**- JOHN RUSSELL, PRESIDENT, HARLEY DAVIDSON**

## THE MONKEYTOE CUSTOM DESIGN PROCESS

Here's what walking through the custom design process might look like:



### STEP ONE INITIAL CONSULTATION

We provide a consultation on-site or at your office. We talk with our clients and involved teams about what they'd like to achieve, and where Monkeytoe can help with design potential. The goal here is making sure our clients develop a great understanding of what Monkeytoe can do and what our products have to offer. We might then select some off-the-shelf products, or go down completely new design paths and create something totally unique. Our in-house engineering and technical teams are here to help with any compliance or engineering questions, saving our clients from needing to bring on additional consultants.



### STEP TWO INITIAL CONSULTATION

We visit the site when required, or we work from plans and sketches. This stage is about understanding the realities of a project, and getting a better comprehension of the scope of works. We develop the design concept and supply a cost estimate. Marking the start of the design and documentation process, the concept development stage is about coming up with answers and estimates for a project. More often than not, figures at this time are estimates because there's usually a fair amount of change between conceptual designs and the final build on any project – sometimes between 20 and 30 revisions might occur between architectural design and final fit-out!



### STEP THREE DESIGN FINALISED

You approve the design fees to start the design and documentation process. When the design is finalised, we provide a fixed-cost price for manufacture and installation – or, if a client is prepared to proceed from proposal, we cover any small changes as a variation. We often don't fully finalise designs until weeks before install – something made possible due to our in-house design and manufacture facilities. Our fast turnarounds and highly configurable products like the XBEAM make those final adjustments really easy.



### STEP FOUR LEAD TIMES

You place the order, and we then provide accurate lead times for manufacture and installation. There's a lot of flexibility with our design process and a high configurability of our products, so we can design a solution and even tweak it on site as needed.

## COLES MOUNT GAMBIER, SOUTH AUSTRALIA

#04

Originally quoted for aluminium solutions, the new Coles Mount Gambier soon became an opportunity to showcase the span and strength of the **XBEAM** solution and Monkeytoe's comprehensive design-to-install solutions.

The roof structure for Coles had been designed almost to its practical loading limits, and it wasn't possible to load up the portal, so our client had two options: invest in further costly steel work to improve the load bearing of the roof itself, or go for a lighter platform solution with broader span capabilities. That's where a custom **XBEAM** solution came in.

What Coles needed was a portal mount system that was custom designed to load off specific, wide-set points.

We developed an **XBEAM** solution that utilised support legs on the furthest points of the building, achieving a span of over 9m x 9m and loading the relatively light weight of the **XBEAM** platform safely over the strongest points.

When it came to fitting the **XBEAM**, the side of the building where the platform was to sit had limited space. Our solution? Build the platform on the other side where there was more space, and crane it in two parts across the building where it could be easily assembled on the roof. What might have been a three-day job of assembly and fitting was completed in a half day - delivering a fast, efficient and custom solution that saved our client a lot of stress.



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## TRUE DESIGN SPECIALISTS AT THE HELM

We understand the importance of meeting expectations and consistently delivering on time. It's a finite resource, after all.

That's why fast turnarounds in design, manufacture and install are key to not just keeping a project moving, but saving money across the board.

Anywhere that you can tidy up on wasted hours is money in the bank. The fast turnaround and install of Monkeytoe solutions continue to surprise even the most experienced site managers, and often is where our clients first see the potential savings realised.

Faster builds obviously mean less money paid out for standing around, but they also mean your spaces get filled and utilised sooner by your clients. A week gained in time is a week sooner that a space can be fitted out and returning on its investment - something we can all agree is worthwhile.

That's why we go out of our way to ensure our products and solutions are fast, efficient and great at what they do.

# #05



## DESIGN & MANUFACTURE TIME

From the ground up, we've designed our solutions to be quick to manufacture for both standard and custom designs. That means we can turn around everything from platforms to beams, ladders, stairs and everything in between with incredible speed. This is especially useful when designers and builders are bringing us in late to a project: we can get our design specialists onto a clients' project and generating solutions in no time, so that the fit-out can continue to run on schedule.

Our design flexibility is due in part to the way we've built our in-house and client-focussed systems, as well as the versatility of aluminium as our primary working material.

Its abundance, performance and high workability mean we're able to create effective designs and solutions with ease.

But it's not just aluminium. In any situation where weight is a consideration, we can change the amount of carbon in our XBEAM solutions and balance the strength-to-weight ratio accordingly. And because we do this in-house, it takes us no time at all to produce a novel solution for our clients.

**"TIME IS MORE VALUABLE THAN MONEY. YOU CAN GET MORE MONEY, BUT YOU CANNOT GET MORE TIME."**

**- JIM ROHN, ENTREPRENEUR**



## INSTALL TIME

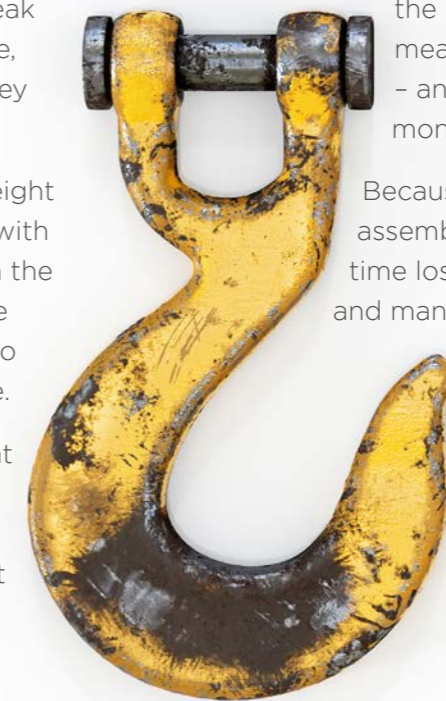
We're quick to mention how versatile our solutions are. We know how much plans can change when you get to site. That's why the modular, flexible design we've innovated means that it's possible to tweak the design when we get to site, working in with changes as they happen.

The **XBEAM** platform's low weight and high strength, combined with the ability to be assembled on the ground on site, means that the complete unit can be lifted into place - often by a single crane.

The combination of low weight and ground-level assembly means that we've effectively eliminated hot works at height and the huge costs, risks and time associated with lugging heavy steel beams or welding.

A completed **XBEAM** platform can simply be lifted into place, and often with a single crane. With fewer people and consents to deal with, and products showing up effectively finished, the prefabrication of custom solutions means quicker and safer installations - and big savings of time, stress and money.

Because we design, manufacture and assemble ourselves, we've mitigated the time lost shifting between tradespeople and manufacturers. If we want something done, we walk down to our colleagues or give them a call and they're onto it.



## CORDIS HOTEL STAIR, AUCKLAND NEW ZEALAND

#06

When Hawkins Construction were contacted by Cordis Hotel, they knew they were in for a big project.

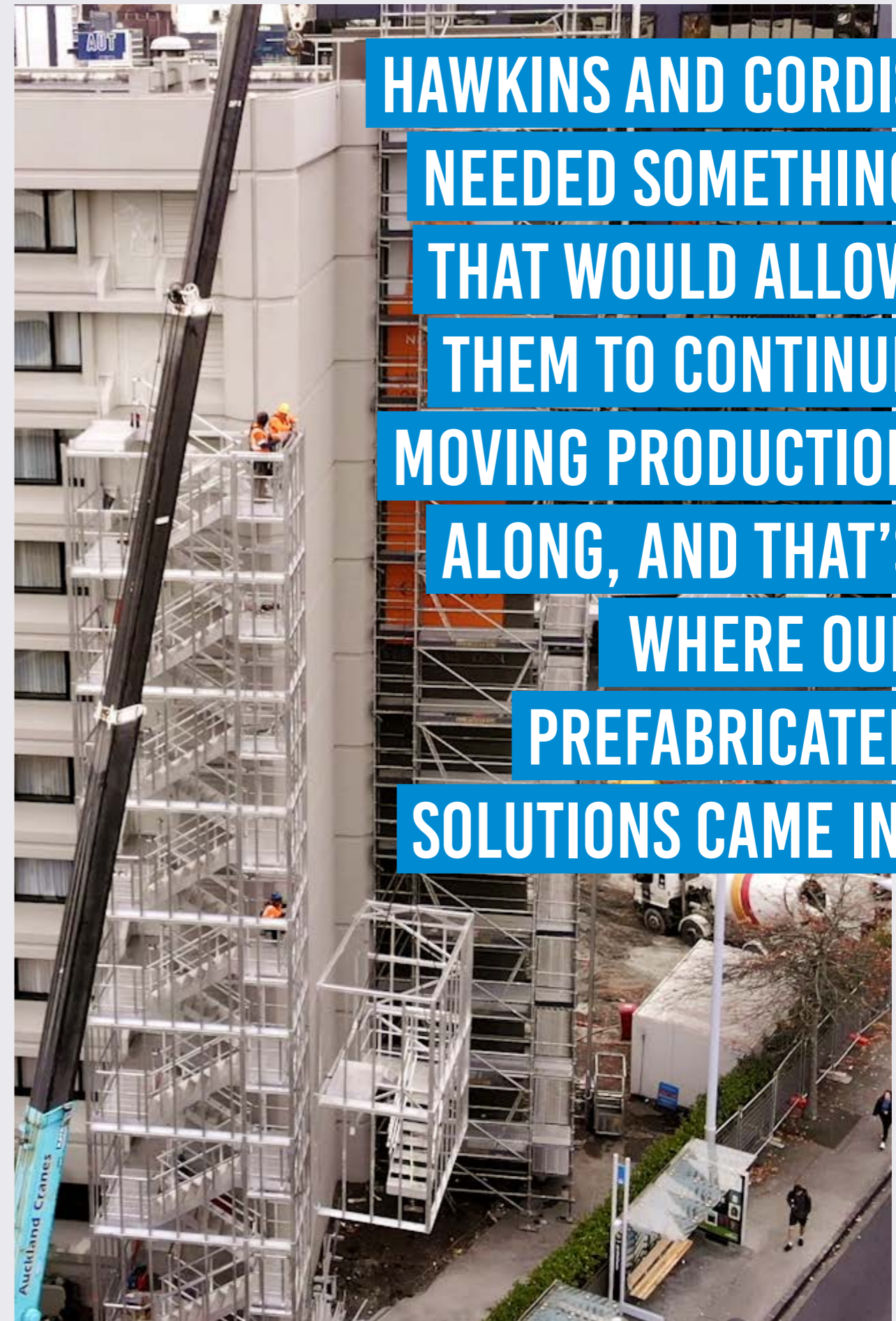
A 17-storey hotel extension comprising around 180 rooms, full service kitchen and conference rooms meant two years of works ahead for Hawkins. But like all great plans, hiccups occur.

The problem they faced was that the existing egress stair couldn't simply be removed. Not only would this present countless health and safety issues, the stair was chosen as the building interface for the additions. Time is money in construction, and Hawkins also had the pressure of a piling contractor that was fast approaching the location of the existing egress.

Hawkins and Cordis needed something that would allow them to continue moving production along, and that's where our prefabricated solutions came in.

We worked with Hawkins on an external accessway solution that the occupants could use while the contractors removed the existing egress. Rather than preparing the opening, removing the scaffolding and building everything modularly, our solution was brought to them as soon as we were ready.

With 26 metres of accessway installed over just four days, Hawkins - and Cordis - have been pretty chuffed with the results.



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The background features a dark blue, almost black, triangular shape on the left side. To its right, a series of thin, parallel white lines radiate from a point near the top center, creating a fan-like effect that fills the right half of the image. The sky is visible at the top, showing a bright sun and some white clouds.

Monkeytoe

EVERYTHING BETTER