

SPRING 2022

# CONNECTIONS

D&H STEEL PEOPLE + PROJECTS

+ PERFORMANCE



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The gala dinner staff event at Te Pai Netball Centre.

## D&H STEEL – 50 YEARS OF PERFORMANCE

**1972 was a great vintage – the first scientific hand-held calculator was introduced, Play School's Big Ted, Little Ted, Humpty, Jemima and Manu made their first appearance on local television and Auckland's Round the Bays fun run was held for the first time. It's also the year D&H Steel was formed, although it was known as Dixon & Haddon back then.**

That was 50 years ago. To mark the big half-century milestone, D&H hosted two events: one with clients at a special function at the Park Hyatt Auckland; and the other with 400 staff and key suppliers at a gala dinner MCed by the Resident Builder, Peter Wolfkamp, in West Auckland. It also wrote a book about its history – *A League of Their Own*.

D&H Steel Managing Director Wayne Carson says celebrating 50 years is quite an achievement. "We're proud of this milestone and we're looking forward to the next 50," he says.

The company's history can be traced from its humble beginnings in a sheep shearing shed at Span Farm in West Auckland through to today, operating out of a purpose-built, high-tech fabrication plant in Henderson. It hasn't been an easy ride but strong leadership over the years has helped D&H to endure many storms.

The first 50 years of business have seen D&H face significant challenges only to emerge stronger than before – from the early union days and 1987 share market crash to the GFC and COVID-19 pandemic. All the while the company has kept pace

with the ever-changing construction industry – often it has been at the forefront of those changes.

It was D&H in the late 1990s that proposed introducing a levy on structural steel. The funds would go on to support the steel industry's growth, the development of its technical and quality assurance capabilities, and its ability to train consulting engineers.

Educating the market about the value of structural steel was a challenge. In the early 2000s, structural steel had less than five percent of the construction market. So D&H Steel joined the Heavy Engineering Research Association and Steel Construction New Zealand to support the work that these industry organisations were doing to educate designers and procurers, and to raise the bar across the entire industry. *Continued inside...*





"Today, structural steel enjoys more than a 50 percent share of the multistorey construction market nationwide," says Carson.

The steel fabrication industry is changing with advances in technology and D&H aims to keep pace with the times. "As a business, we've been focused on keeping ahead of the market and have been early adopters of technology and systems," says Carson. "New technology is very much on our radar. The use of robotics and advances in manufacturing techniques is something

we're keeping an eye on. We are also embracing the Industry 4.0 pathway, which is about making smarter decisions in real time based on available data. It's advancing quickly."

In its time, D&H has helped to deliver many of the largest structural steel projects across Auckland. It has grown from being a hands-on and dirty trade to a sophisticated and professional operation with a high level of expertise and knowledge. "We aim to maintain that momentum in the next 50 years," says Carson.

## IT'S ALL ABOUT OUR PEOPLE

**D&H is a Kiwi business success story, with people at its heart. It's big on family, community, diversity and supporting its staff to grow. "We're proud of what we've achieved but it wouldn't be possible without our team of dedicated people," says Mike Sullivan, Executive Director, D&H Steel.**

The company features many long-serving and multi-generational employees going back 10, 20, 30 and even 40-plus years. D&H honoured its dedicated team members with long-service awards at its staff event, including John Ahvui with 41 years and Joe Cowan with 47 years.

Guiding the company on its path is something it calls the 'D&H Way'. It comprises the team's holistic 'best for project' approach, its focus on client relationships, its goal to exceed expectations, and its drive for 'performance when performance counts'.

"There is an inherent attitude to how we deliver our projects. It's hard to put a finger on it but it's in the way we behave and in the way we think. It sets us apart and continues to develop from our experience of what we know works and what we know doesn't work," says Carson.



Above: [L-R] Jordyn Drinnan, Callum Hamilton-Hibbard, Jeff Stevens, Emily Denyer-Bessant, Jamie Bessant

Right: [L-R] MC Peter Wolfkamp, Bob Haddon, Mike Sullivan



Left: [L-R] George Leefe, Falo Fafito, Rod Allen, Arvind Naidu

Below: [L-R] Quiz night winners: Harold & Nherry Milla, Jason Bayer, Belle & Darren Macalalad, Gloria & Arturo Quicho, Albert Manalo, Rochelle & Jeffrey Espiritu



Left: [L-R] Mike Sullivan, Jake Faafua, Wayne Carson

Right: [L-R] Rajeev Madam, Sindhu Rajeev, Abhinav Rajeev



Below: [L-R] Joey Libo-on, Napoleon Coronel, Randy Harina, El Sagrado



Left: [L-R] Manuel Sabido, Jose Mirandilla, Belle Macalalad, Nherry Milla, Kathy Gomez, Eva Verdan, Lhen Mirandilla, Gloria Dela Cruz



# LONGSTANDING PARTNERSHIP AID AIRPORT PROJECT

**D&H Steel is partnering with Hawkins on the Terminal Integration Enabling Projects – WP1 for the first stage of Auckland Airport's expanded terminal for both international and domestic travel. Ultimately, a high-tech baggage handling system will replace the international terminal's eastern baggage hall.**

Hawkins brought D&H on board in an Early Subcontractor Involvement model. A traditional tender model would have hindered the team's ability to meet the fast-track areas of the project and the staged completion dates, says Jason Carnie, Project Director, Hawkins.

The design was in the concept phase and certain elements had to be accelerated to meet construction dates. The design team needed input to help make some quick, informed decisions to manage a condensed design and procurement programme. "D&H advised on material selection, programme and construction methodology," says Carnie. "It helped us pull it all together much quicker."

With offshore shipping continuing to present challenges, D&H procured long lead-time materials early on. This steel,

which arrived in November, will go into fabrication to meet the start-on-site date in March 2023.

D&H's knowledge of the steel materials helped to inform material selection during the design phase. "For the hollow steel columns, a thicker plate size was actually a more efficient option," says Carnie. "D&H's input during design helped to fast-track decision-making and provided consultants with a clear direction with material selection and procurement schedules to help maintain the construction programme and complete the design in a tight time frame."

D&H also lent its know-how to the planning phase. "We have to get in and build while protecting and maintaining the Airport operations and key tenants' businesses so it makes sense to have the structural steel contractor involved in the planning," says Carnie. "Some of the steel connections require very detailed methodologies and D&H helped us with the sequencing."

D&H has completed the bulk of structural steel contracts for Hawkins at the Airport since the pair began working there together back in the mid 1990s. Their strong relationship is continuing as the Airport

ramps up its infrastructure programme.

Carnie notes that continuous improvement in construction is often a challenge as each new project typically brings a new team.

*"We would feel more exposed if we were bringing in a different contractor and starting from scratch again. There is a lot less risk when you have a regular working relationship with mutual understanding of trust and respect."*

D&H is partnering with Hawkins for the first stage of Auckland Airport's expanded terminal.



## CARDINAL LOGISTICS: REACHING NEW HEIGHTS

**D&H Steel has provided the structural steelwork for Cardinal Logistics' latest warehouse offering in Drury, South Auckland. The new build is a response to increasing demand for storage and logistics in the wake of the pandemic.**

The overall footprint is 37,000sqm and the main warehouse dimensions are 92m wide by 230m long, and 22m high at the knee. The building includes a 600sqm two-level office space. Up on the roof, 50 percent of the surface area will be covered in solar panels.

The structure's design reflects the trend towards higher storage structures to combat increasing land prices.

Custom Welded Beams were chosen



to accommodate the height and clear spans required.

MCS Director Geoff Chilcott valued the considerable know-how the D&H team brought to the project. "They were proactive members of the design and construction team, providing great advice on programme and cost efficiencies."

Chilcott has worked with D&H Steel for many years and continues to be impressed with the team. "They always come up with innovative and practical

structural steel solutions," he says.

"They're very approachable and full of good advice for economical outcomes."

While the warehouse looks like just a big box from the outside, the building will be home to a sophisticated automated pallet racking system when completed.

**Above: Some of the D&H team on a field trip to see its structural steel handiwork taking shape during construction of the Cardinal Logistics warehouse, Drury.**



# D&H PROJECTS DAZZLE IN NATIONAL STEEL AWARDS

**D&H Steel triumphed in the 2022 Steel Construction New Zealand (SCNZ) Excellence in Steel Awards, taking home the Supreme Award ahead of 20 worthy finalists for its work on the New Lynn to Avondale Shared Path.**

Steel features heavily in the Shared Path, which follows the geometry of the existing KiwiRail tracks. The pathway, which opened in June, comprises several different steel applications including elevated helical boardwalks, balustrades and handrails, and a new pedestrian bridge. Sited over rough terrain and waterways, D&H provided value engineering to make the 2.9km mostly off-road pathway buildable and practicable.

D&H, alongside engineering firm Aurecon, also won the Over \$3m category with its contribution to the **Puhinui Station**

**Interchange.** Redevelopment of the Station transformed the facility from a suburban railway station into a landmark transport hub connecting South Auckland to the airport and city. The Interchange has a unique form that was extremely complex to design and construct.

These wins come hot on the heels of D&H's success at the 2021 SCNZ Awards, which were postponed till June this year as a result of COVID. D&H came out on top of two categories: Under \$0.5m for Waiouru Point and Over \$3m for Sylvia Park Galleria.

**Waiouru Point** at Highbrook Business Park, East Tamaki, includes two adjoining warehouses that overlook the Tamaki River. Its striking design is inspired by the local estuary birdlife. D&H came on board early to help refine the design.

After several meetings with the architect and engineer, the structural steel contractor proposed innovative changes that led to a more practicable 'eyebrow' Y frame structure.

**Sylvia Park's** \$277m, 20,000sqm south mall expansion involved retrofitting a new upper level floor to the shopping mall. The team collaborated to minimise structural weights and carefully plan the new structure to deliver a large-scale sustainable conversion of the existing building. For D&H, the Galleria was the final stage of a 4,700t redevelopment of which approximately 1,530t was dedicated to the level one mall extension. D&H delivered some intense value engineering to provide practical buildability of the steelwork, which flowed on to assist with the installation process.



PROJECT: The New Lynn to Avondale Shared Path



PROJECT: Puhinui Station Interchange



PROJECT: Waiouru Point



PROJECT: Sylvia Park Galleria

# AWARD-WINNING PEOPLE



## WAYNE CARSON 2021 CHAIR'S AWARD

Wayne Carson was 2021's recipient of the prestigious Award, which recognises individuals who have made a significant contribution to New Zealand's structural steel industry.

Former SCNZ Chair and John Jones Steel Managing Director Frank Van Schaijik noted that Wayne is driven to serve the greater good and has always been firmly focused on benefits to the whole industry. He has been a relentless cheerleader for the industry and was instrumental in building the camaraderie that the structural steel industry enjoys today. Importantly, Wayne has been a mentor to many and is always prepared to give guidance to help others to raise standards. He has also been an influential representative for the industry with both local and central government.

Wayne has given his time generously to represent the industry on multiple occasions, delivering informative presentations to universities, industry bodies, engineers, builders and quantity surveyors. As a result, the wider industry is more aware of structural steel as an alternative and it has become the material of choice for building and infrastructure projects in New Zealand.



## KELLY JEFFRIES 2021 SCNZ YOUNG ACHIEVER OF THE YEAR

The Award celebrates excellence amongst outstanding employees in the structural steel industry whose skills, drive, and willingness to learn and work hard, have helped them to achieve exceptional outcomes. Importantly, it recognises individuals who demonstrate not only talent and a great attitude, but also display traits important to our industry – commitment, innovation and agility.

Kelly joined D&H Steel fresh from school in 2011. Starting as a frontline administrator, she has developed into the go-to person in the D&H production office. She is organised and applies her highly analytical mind to solving problems. D&H says it is Kelly's attitude, commitment, and desire to learn and develop that has got her to where she is today. The judges noted that Kelly is a real go-getter. She is continually on a mission of self-improvement and has gained a broad skill set as a result. Well done Kelly!

Above left: Wayne Carson accepts the prestigious 2021 Chair's award.

Above: Kelly Jeffries, flanked by former Minister for Building and Construction Poto Williams (left) and SCNZ Chair David Moore, holding her well-earned trophy for 2021 Young Achiever of the Year.

## COLIN TAKES A BOW

We're proud to be celebrating our 50-year anniversary alongside D&H Steel Project Manager Colin Ross, who is also marking 50 years in the steel industry. Making it even more notable is that Colin led three of D&H's winning projects: NL2A Shared Pathway, Waiouru Point and Sylvia Park Galleria.

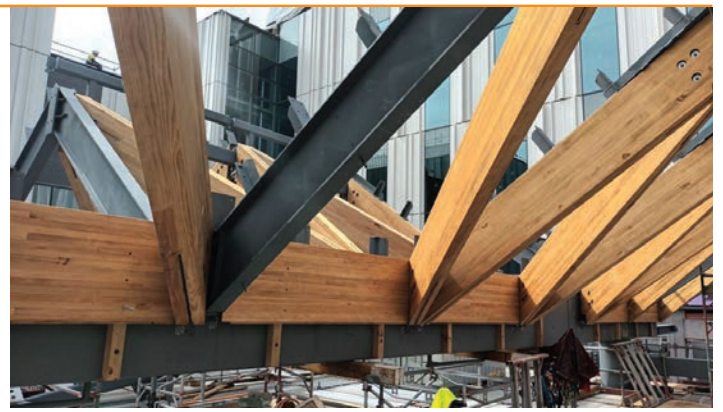
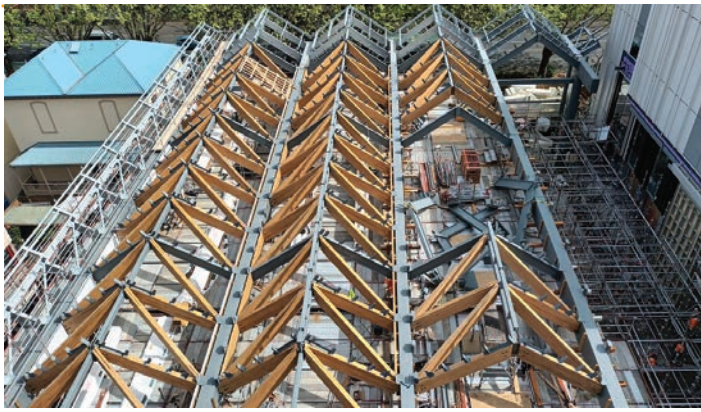
It's rare for Colin to be rendered speechless, but he came close when he accepted the 2022 Supreme Award for the team for the NL2A Shared Pathway.

"It was an extremely difficult project that required some deep thinking and sound value engineering to make it a success," he says, adding that thanks must go to the wider project team: Dempsey Wood, Aurecon, Auckland Transport, Roadlab and Tenacity Consultants. "And special thanks to our Detailer Michael Chen for the excellent accuracy of his 3D modelling and detailed drawings, and Site Manager Kevin Deane for piecing it all together."



Above: Colin Ross (left) on stage at the 2022 Excellence in Steel Awards, accepting the Supreme Winner Award for the NL2A Shared Pathway project from Nelson Mayor Nick Smith and SCNZ Chair David Moore (right).





## B201: WHEN OLD MEETS NEW

**D&H Steel is providing the structural steelwork for the University of Auckland's B201 development, one of the Government's shovel ready projects. It is a significant refurbishment of the north and east wings of the Social Sciences building and includes additional floors, roof structures, seismic upgrades and structures to support photovoltaics on the roof.**

While the bulk of the project is a refurbishment, there is a new build aspect – the building's entrance atrium. A highly architectural, long-span structural steel roof will support a secondary glulam timber structure. The 35m clear span steel solution will be supported by 1100x500mm fabricated box sections – all hidden beneath a timber veneer.

"Clad in timber, it will appear to be an engineered timber solution," says Richard Hine, General Manager, D&H Steel. "But the concealed structural steel will be doing the heavy lifting in terms of the structural support."

Considerable thought has gone into the steel-timber interface as the two materials behave differently. Timber is naturally less robust and more prone to movement, like warping, and expanding and contracting with the weather. So the team has focused on ensuring the connections are accurate and it all fits together. The process has included building a full-scale mock-up of one of the more complex connections.

D&H came onboard in an Early Subcontractor Involvement capacity alongside Hawkins to help develop workable details. "It's a very site-intensive project," says Hine, "especially the retrofit as large amounts of new structure need to be constructed within the existing building envelope."

Mobile and tower cranes can't be used so there is much time-consuming horizontal movement of fabricated product into the workspace and then more manual techniques to lift and hold the structure in position to fix it off.

Impressively, there are 12,000 new anchor

fixings drilled into the existing frame to support the new structure. "The trick was to avoid damaging the existing reinforcing within the concrete structure, so D&H had to help Beca develop multiple bespoke solutions for these connections," says Hine.

The job used advanced technology to facilitate a more accurate design and help to ensure the new structure fits the old. A 3D model of the existing building was generated using point cloud surveys, which send out millions of laser beams that return points as they hit surfaces. When input into specialised software, it produces a 'map' of the existing building fabric.

Throughout it all, Brett Carroll has been the D&H Site Supervisor. "He's navigated his way through one of our most complex projects," says Hine. "It's involved dealing with all of the impacts of COVID and having many workfaces opened all at once. Brett's done a hell of a good juggling act."

**Above: Clad in timber, B201 will appear to be an engineered timber solution, but the concealed steel will be doing the heavy lifting.**



## EDUCATION: D&H OPEN FOR BUSINESS

D&H Steel has thrown open its doors to students once more. Prior to COVID, the company actively engaged with tertiary institutions and the local high school to help educate the next generation of industry talent. When the pandemic hit, that activity came to a sudden halt.

"We're excited to be gaining traction again," says Richard Hine, General Manager, D&H Steel. "It's refreshing to welcome young people back to D&H and show them what we do with a view to attracting them into our fantastic industry."

The team recently hosted close to 45 Unitec students at its Henderson site. Most were second-year Construction Management students. The visit involved explaining what D&H does and its place in the construction chain. The highlight was a comprehensive plant tour where students could take photos and chat with the workshop team. "We walked and talked them through the process," says Hine.

D&H also has a longstanding relationship with Waitākere College through the Gateway programme. The company typically gives years 11, 12 and 13 students the opportunity to get hands-on experience while studying at secondary school. For those that don't know what they want to do, the programme gives them a taste of different vocations. In support

# STEEL DRIVES PERFORMANCE

**Central to the ethos of the Wynyard Quarter Innovation Precinct is the drive to deliver world-class buildings with a focus on sustainability. Site 6 is no exception.**

"Precinct operates under strict design and outcome criteria to ensure that all developments operate to the highest Green Star, NABERS and global carbon standards," says Alain McKinney, Project Director, Precinct.

The final stage of the Innovation Precinct comprises 21,000sqm of office and retail space over three interconnected buildings, which range from three to eight storeys. As with most buildings in the Precinct, two of the Site 6 buildings feature structural steel frames.

"Steel was the obvious selection for the innovation precinct development and has performed exceptionally well due to flexibility and value," says Alain.

Precinct has been working with Hawkins since the project commenced in 2015. Given the project's complex ground conditions, Early Contractor Involvement (ECI) was essential to identify possible risks. The major subtrades were engaged, with D&H Steel at the forefront. McKinney says it made good business sense to get D&H around the table earlier.

"D&H's shop drawing ability is second to none," says McKinney. "They live and breathe steel so why wouldn't we use their expertise to maximise the building's efficiency."

The Hawkins-D&H partnership has been instrumental in creating an efficient

methodology that allows three buildings to be built one after the other yet finish at the same time.

The primary structural steel frame supports the precast concrete floor system for each building and the concentrically braced frame provides a low-damage seismic engineering solution.

Holmes welcomed the opportunity to engage early with D&H and valued its expertise and real-world view of fabrication and erection. "While we were developing and completing our design, we could use their input to facilitate an effective construction solution," says Pascal Schrojien, Project Director, Holmes.

As a result of a major pre-leasing success, the team has had to alter the design to link the Halsey and Pakenham buildings

together with two bridges on levels one to seven. It's not without challenges.

Much of the structure on the Pakenham building has had to be modified to integrate the new bridges, says Rhys McKenzie, Project Manager, Hawkins. "It's led to a lot of changes to the steel indents. We've been working with D&H to find solutions to integrate these without causing project delays," says McKenzie. Wayne Carson is a regular at the structural workshops where the team explores the details including lead times, shop drawings and work phases. "D&H has been instrumental in that whole process, using their expertise to tell us what we can and can't do."

**Below: As with most buildings in the Wynyard Quarter Innovation Precinct, two of the Site 6 buildings feature structural steel frames.**



of this, D&H has run three tours of its operation this year starting with a focus on engineering, welding and fabrication, then commercial followed by computer design and drafting.

To close the loop, D&H organised a tour of the University of Auckland's Recreation and Wellness Centre construction site for a 30-strong group of Waitākere College students and their teachers.

"They've been to the factory to see how it all works; the site visit was the final piece of the puzzle, to show them where all the product goes to," says Dean Pouwhare, Operations Manager, D&H Steel.

D&H stands to benefit from its student engagement whether it attracts new blood to join the company or the wider industry.

"Whether they work with us or for us, there is real value when they understand our steel industry – what our capabilities are, what's involved in producing steelwork and what its applications are," says Hine.

## HEAVY ENGINEERING HUB IN THE MAKING

Working with the Ministry of Education (MoE), D&H Steel is exploring a deeper partnership with Waitākere College. MoE is encouraging local West Auckland schools to each develop a different, trade-based speciality that can be accessed by surrounding schools and their students. The concept is a collaborative approach to trades-based education.

The first example of this in the area

is Massey High School, which has introduced a sophisticated carpentry offer with support from local business. Now there is an opportunity for Waitākere College to develop into a centre of excellence for welding and heavy engineering, which D&H would be well-placed to support.

"It's a big step forward and a fantastic initiative," says Pouwhare. "It's still early days but we're excited about the prospect of helping to build a local specialist training hub for welding and engineering."

**Left top: D&H Steel Workshop Manager Cameron Rogers (centre) takes Unitec students on a tour of the high-tech facility.**

**Left bottom: D&H's current cohort of trainees and apprentices.**



- + Project Management
- + 3D Modelling & Shop Drawings
- + Fabrication
- + Protective Coatings
- + Site Management & Erection

D&H was the first steel constructor in NZ to be awarded this International Quality Accreditation. We comply with ISO 3834 for the benefit of our clients.



ISO 3834 Part 2  
Certificate No. 001NZ/2014

We were also the first to acquire Steel Fabrication Certification - a quality management system under the auspices of the IIW (International Institute of Welding).



We manufacture all the commonly specified welded beam and column sections and provide a free design service for optimised, tapered portal frames. Our custom welded beams are made from G350 steel and welded on both sides.



## D&H UPS ENVIRONMENTAL SUSTAINABILITY FOCUS



Environmental sustainability in construction is, arguably, one of the industry's greatest challenges and one that D&H is committed to facing – head on.

"We are proud to have received Enviromark Gold accreditation after a rigorous 12-month process," says D&H Steel CWB Manager John Frederickson. Today, many projects D&H works on require Green Star certification. Along with its Enviromark Gold status, D&H sources steel from Responsible Steel Manufacturers and is a Chartered member of the Sustainable Steel Council.

For Enviromark Gold certification, organisations must have:

- Developed, implemented and tested environmental emergency plans
- Identified and evaluated any significant environmental issues
- Instituted active monitoring and ongoing compliance with New Zealand legislation
- Produced an environmental policy statement
- A comprehensive environmental management system
- Demonstrated compliance with New Zealand's applicable health and safety and environmental legislation.

## NEW STARTERS



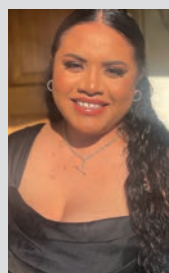
**Mithra Kumar** joins D&H as our company accountant. To unwind, Mithra enjoys getting out on her mountain bike or staying in to flex her candle-making skills.



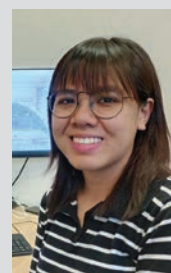
**Bruce Miller** is an experienced site manager and is working on the University of Auckland Recreation and Wellness Centre. Outside of work, Bruce enjoys golf, fishing, model building or restoring his 1962 Austin Healey 3L.



Cadet Site Engineers **Jikun Yin** (left) and **Jon Bondoc** have commenced their careers at D&H Steel. Jikun is involved in CWB portal frame and temporary works design, and Jon is assisting our project managers with the delivery of the Sylvia Park 'Build to Rent' and Kakariki Greenlane Hospital projects. Jikun goes to the gym regularly and plays online video games against his friends. Jon plays basketball socially and likes getting out and about exploring the countryside.



**Ella Mounगतonga** joins our Document Control team. Outside of work, Ella loves spending time with family, cooking and taking long drives (especially when she's the passenger).



**Jaeya Ibanez** has an architectural design background and joins us as a steel detailer. After hours, Jaeya is a Lego-building enthusiast and next year hopes to find time to train for the Auckland half marathon.



Phone one of our team today. We'd love to hear from you.

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Managing Director

**Richard Hine** – 022 032 6622  
General Manager

**Dean Pouwhare** – 021 523 788  
Operations Manager/Director

**Cameron Rogers** – 021 835 950  
Workshop Manager

**Mike Thompson** – 021 526 102  
Detailing Manager

**John Frederickson** – 021 534 435  
CWB Manager

**Colin Ross** – 021 422 819  
Project Manager

**Desmond Knowles** – 021 526 008  
Project Manager

**Moro Smith** – 021 735 168  
Project Manager

**Document Control** – 021 452 488

**Mark McKeown** – 021 670 466  
Estimating

**Jamie Moxon** – 021 163 2830  
Estimating

**Ethan Blyth** – 021 053 2612  
Estimating

**Nigel Metcalfe** – 021 144 5387  
Purchasing Officer

**Mithra Kumar** – 021 845 723  
Accountant