ISSUE 43

SCOPE

MRM

NZ METAL ROOFING MANUFACTURERS INC.

SCOPE

ISSUE 43 DECEMBER 2016

Below is a brief introduction to the 2016 executive of The Metal Roofing Manufacturers Inc. It is intended that Scope be representative of the Metal Roofing and Cladding Industry in both commercial and residential sectors. Your submission of material you consider is of interest is welcomed be it design, research, manufacture or construction.

Published by ICG Limited.
46 Attwood Road, Paremoremo
Auckland.
Telephone: 09 413 6242.
e-mail: conceptart@xtra.co.nz

Managing Editors: *Warren Oliver, Christine Wilkinson, Chris Back.*

Scope is the official publication of
The NZ Metal Roofing Manufacturers Inc.
Executive Officer: Garth Wyllie
Private Bag 92 066, Victoria Street West,
Auckland.1142
DDI Ph: 09 367 0935 Ph: 09 367 0913
www.metalroofing.org.nz

In the 1880's a blacksmith shop opened at Outram, the Taieri river ferry crossing, to service the horses and wagons belonging to streams of hopeful prospectors heading for the Central Otago goldfields.

Architect Reece Warnock, architectural designer, recalls the building from his childhood as a rather scary place in the town. It now forms part of his home and he and his wife Kelly have gone to extraordinary lengths to preserve a part of Outram's, and New Zealand's, history.

The exterior of the home and the landscaping are testament to the passion Reece and Kelly have for the preservation of the heritage of this building. They have the admiration of Heritage New Zealand for their efforts and have collected many treasures from the past that adorn their home and property. The theme of yesteryear with the old farm hay rake, the slotted post and rail fence, wagon wheels, the cobble stones and tussock all contribute to the

THE SMITHY

Prior to any building or demolition on the out buildings archeologists documented every detail and sifted through every artifact as it was uncovered. Reece made a 3D model and took time lapse shots of the site and build process.

"Creating a family home and design studio around a building that was over a century old, preserving the history where possible, was something of a challenge," says Reece, "How the new building would fit around the old in a practical, aesthetically pleasing and complementary way took a long time. A year to long my wife Kelly would say."

The site is basically flat and situated on a corner. The intent was to present the main road aspect with a modern pavilion styled home. Around the corner the historic Blacksmith shop is nestled between the main house and Reece's design studio giving separation to home and work.

The back and one inside wall has been replaced with glass giving clients an opportunity to experience the "smithy's" world from the studio foyer. It is also open to view from the connecting hall way from studio to house and the bi-fold doors in the kitchen open to give access to the forge which is often used as an entertainment focal point.

The roofline, as with any building, was a determining factor and is designed to reflect the pitch of the original building and the lean-to is continued on the studio to complement old with new. The original building retains the rustic patchwork of the iconic corrugated iron roofs of the era. For the new building Reece chose Alpine Tray in Ebony manufactured by the Freeman Group, supplied by Wanaka Roofing and installed Simon Easton. While the profiles are distinctly different the subdue colours of the new roof and the use of cedar cladding blends the two buildings together.
The roofline of the bedroom behind also reflects the pitch of the Blacksmith's shop adding continuity to the project.

The main house however is nothing but state-of-the-art and Reece has incorporated many creature comforts to enhance family living. From the ground up the home has a fully insulated poly block slab and foundation with 140mm external framing to allow for R4.0 pink batt insulation. Heating is provided via a air-source heat pump central heating system designed by Aircomm and windows and doors are double glazed low-E windows from Metro Glass and

APL plus LED lighting through out the home for energy saving. The entertainment suite has an audio visual system supplied and installed by Strawberry Sound and is the best place in the house according to Kelly.

While the focus was on the Blacksmith historic values it was important not to lose sight of our objective which was to build a contemporary style home for our family of four and incorporate a design studio for Reece's architectural practice.

The home is built as a series of interwoven modules that, with the studio, surround and encapsulate the Blacksmith shop.

The living areas of the home face the main street and are open giving views of the street and those passing by. To Reece this "cafe like" interaction with the local community was important as it is a small and friendly town where people matter .

The open plan living area has bi-fold doors that open to the forge that form part of an outdoor entertainment area.

The main lounge features high pitched ceilings with fully glazed walls and sky lights providing light by day and unobstructed views of the night sky. The lounge opens to the entertainment courtyard through stacker sliding doors.

The bedrooms are all situated at the rear of the building to add privacy. The bathroom has it's own exterior enclosure giving privacy to relax and enjoy the outdoors through the bi-fold doors.

There are no curtains throughout the house but the use of blinds gives added protection from sun and privacy when required.

The overall colour scheme for the home is neutral with features of dark stained timber in keeping with the original Blacksmith forge building.

Overall this is a challenging design project showing design flare with innovation and empathy with the history of Outram and glimpse into the lives of our forefathers.

The project was regional award winner at the Otago/Southland awards and National Finalist ADNZ | Resene Architectural Design Awards

Warnock Architecture

Warnock Architecture specialises in 3D Architectural Design and is known for providing cutting edge design, high quality detailed contract documentation and Draughting Services at an economical price.

The Practice uses Autodesk REVIT and Artlantis to produce true to life 3D models and contract documentation to illustrate designs in a professional and understandable manner.

The Practice provides a full range of Architectural Services from Concept Design through to Resource Consent and Building Consent Documentation using an 'Umbrella' management system to ensure projects are effectively completed.

Our company was established in 2001 and had been responsible for providing outstanding service and has been involved in excess of 1000 projects providing a diverse range of professional services from Architecture to Mechanical Services draughting ever since.

Architectural Design:
Warnock Architecture. Dunedin
Reece Warnock : ADNZ
Telephone: 03486 1111
www.warnockarchitecture.co.nz
reece@warnockarchitecture.co.nz

Building Contractor:
A J Barron Building, Outram
Telephone: 027 486 2335,

Roofing Manufacturer:
Freeman Roofing, Nelson
Telephone: 03 5443108
email: dallas@roofing.co.nz
web: roofing.co.nz
Profile: .55 Alpine Tray
Colour: Ebony

Roofing supplier: Wanaka Roofing
Telephone 03 443 1250
Roofing Installer: Simon Easton

MRM LIFE MEMBERSHIP FOR STUART HAYMAN

Stuart Hayman, who has been a consultant on technical issues to NZMRM since leaving Gerard Roofs in 2009, was made a Life Member at its September conference in Noosa.

Stuart has been involved on many projects of technical significance to the roofing industry - from standards to noise testing, light v's heavy weight roofing, durability issues to roofing underlay.

A chemist by profession, Stuart worked in the paper and porous plastics industries before immigrating to New Zealand in 1975. He worked in the technical and engineering side of Alex Harvey Industries, including building and equipping the George and Ashton container factory in Dunedin, then becoming manufacturing manager at AHI Armafoil (foils and underlay) in 1978 and later at AHI Roofing (metal tiles, now Gerard Roofs) from 1984 – 1996 when his role there became technical development manager from 1996 to 2009.

The 12 years between 1984 and 1996 involved interesting technical and product development work as well as running the factory. AHI Roofing's global activities meant visits to European licensees, working to commission the factory in Algeria, approving the site for the Californian plant, and later involvement in product development and commissioning there. The acquisition of the Rolls Gerard Papakura plant meant organising production of the Gerard products at Glen Innes. A visit to the Indonesian Gerard licensee showed how you can actually make products more or less by hand.

After 2000 he visited the Argentinean agent, the Malaysian plant and did product testing in Australia (including product testing for exposure to fruit bat droppings!) So this was an interesting time to be in the business.

From about 2000 on he became increasingly involved in NZMRM technical projects. Involvement with NZMRM started really with sitting on the NZS 3604 standards committee in 1999. He has been a member of the NZMRM Executive committee since then, first representing Gerard Roofs and then as a co-opted member.

Stuart has been closely involved with the Code of Practice from its inception in 2002 and which is currently being completely revised to be published on the internet rather than as a continuous document as it is currently. The CoP is being organised to align with the NZ Building Code clauses, involving significant re-organisation of material along with updating and revising in line with changes in regulation and knowledge.

Stuart has represented MRM on;

- New Zealand and Australian standards, notably NZS 3604 1999/2000 (and again in 2011),AS/NZS 2728 and AS/NZS 4505, along with NZS 2295in 2006 and
- again now and, AS/NZS 4200 and AS 1562.1 currently. NZMRM
- is a regular member of Australian committees BD-014 (Roof cladding and testing),
- BD-058 (Underlays and insulation) and MT-009 (Metal treatment) and is currently representee
- Stuart (and David Eccles-Hall of RANZ) are currently representatives on SNZ committee P2295 revising NZS 2295 – Pliable, Permeable Building underlays. RANZ technical chairman, David Eccleshall represents RANZ on NZS 2295.

He has been closely involved with two major (long-term) technical projects for MRM, the corrosion project and the wind load test rig. The roofing industry had been aware during the 2000s of some incompatibility between fasteners and cladding, manifesting in differential corrosion.

In 2012 MRM commenced a programme to investigate the relationship between fasteners and cladding in severe environments.

The aim of this scheme, developed initially by the late Stuart Thomson, was to optimise products used together and to promote development of improved durability of fasteners. Roof panels of all currently available metal cladding with all currently available fasteners were located at five marine sites around New Zealand, the locations characterised for corrosivity according to ISO 9223 and the cladding/fasteners inspected at regular intervals.

After four years the efforts are now concentrated on two West Coast sites and incorporate other product interactions and new products are also being assessed on these sites.

Stuart has also been involved with MRM's wind load test rig, acquired in 2006 to simulate and assess the effect of wind uplift on roof cladding and fixing patterns and he currently manages the testing programme for members and for NZMRM.

The rig is described as an air box and is one of only a few in Australasia. Cladding is fixed to the top of an airtight steel box and the purlin spacing and fastening pattern varied. The box is pressurised with a fan and the effect on the cladding (damage and deflection) at increasing pressures documented. This information enables a load span graph to be produced for any particular cladding profile and fixing method. In the last couple of years MRM has re-tested standard profiles in steel and aluminium in order to update the data published in the Code of Practice.

Stuart has also been involved in the Sustainability sub-committee which promotes the environmental benefits of metal cladding. This has recently been involved in the "zinc runoff" project, also reported in Scope, and which is an ongoing issue.

In addition Stuart has carried out a number of other projects, many of which have been reported in Scope and Rooflink. To name a few; traffic noise through roofs, the use and fixing methods of solar panels, the viability of solar energy, reflectivity of metal and painted surfaces, the Auckland Unitary plan submissions, the effect of heavy metals and water collection, roof valley drainage.....and the list goes on. The body of work and expertise behind the scenes and published that Stuart has given to the industry is expansive. (These reports are all available on the NZMRM website).

NZMRM runs a number of both one-off and ongoing technical based projects and Stuart has been involved in many of these, either hands-on or management, and we try to keep members and interested parties up-to-date on these through reports in Scope, all of which are now archived and available via the NZMRM website.

HOW TO RETAIN THE SHINGLE LOOK WITHOUT THE FEAR OF LEAKS

Pressed metal Metrotile Shingle tiles provide better longevity than traditional shingle roofing, without compromising on aesthetic appearance. Traditionally, people refer to shingles as wood shingles and more recently there has been the introduction of imported shingles made out of composite materials such as asphalt to the market.

In fact shingles are made of various materials such as wood, slate, fibre cement, metal, plastic, and asphalt. All shingle roofs have a low profile appeal with aesthetics in patterns, textures, colours, and can be installed on plywood. However, the durability and performance of shingles also varies, with noted differences in fire resistance, marine environment, high wind resistance, and environmental sustainability.

Jerry and Elizabeth Paul, the owners of a property in Shelly Park, Auckland, were faced with a problem when their asphalt shingle roof showed signs of failing. They were concerned as they saw one side of the roof, facing the ocean, with some asphalt shingles peeling off. After consultation with roofing experts, Edwards & Hardy, the roof was inspected and the owners were shocked when they were told that water had already got into the underlay and the plywood had stared to rot.

Their trust in asphalt shingles was down to zero. Now, Jerry and Elizabeth faced the challenge of finding a suitable substitute that offered better longevity than the current material without compromising the aesthetic appearance of the property. The solution, recommended by Edwards & Hardy, for their 700m² of failed roof cladding was to replace the rotten plywood and install the Metrotile Shingle.

metal shingle, fabricated from ZINCALUME® protected steel. One of the benefits of using the Metrotile Shingle profile is being able to install this over top of the existing roof, thereby reducing the exposure to environmental conditions while the roof is being replaced.

Metrotile's textured finish provides added protection by embedding natural stone granules in an acrylic base coat. The Metrotile Shingle textured finish tile captures the subtle look and charm of low profile traditional shingles. "We chose a Metrotile Shingle in Walnut to replace our asphalt roof for its 50-year weathertight warranty, appearance, energy efficiency and cost effectiveness... our new roof is gorgeous." Jerry & Elizabeth Paul said to the Metrotile team. It is great to hear the home owners are happy with the new roof.
With a Metrotile Shingle roof, specifiers can eliminate the delaminating, lifting, and general break-down caused by strong UV rays and high winds associated with other shingle roofs. Metrotile Shingle comes in a choice of natural weathered tones to recreate the visual appeal of timber, asphalt or fired clay shingles.

Roofing Manufacturer:
Ross Roof Group
Profile: Metrotile Shingle
Colour: Walnut
Telephone: 09 295 1815
www.rossroofgroup.com

Repair and Install:
Edwards & Hardy
Telephone: 09-274 4097
www. edwardsandhardyroofing.co.nz

IT'S ALL ABOUT STANDARDS

Article for New Zealand Metal Roofing Manufacturers magazine 18 November 2016. Author Jayne McCullum

NZMRM works actively with Standards New Zealand and Standards Australia to ensure all building standards for our industry are developed and maintained correctly.

What do we know about Standards New Zealand? How does the standards process work?

About Standards New Zealand

We are New Zealand's leading developer of standards and standards based solutions. Most of our standards are developed in partnership with Standards Australia. Our role is to manage the development process using internationally recognised best practices. The processes we use comply with directives from the International Organization for Standardization (ISO and the International Electrotechnical Commission (IEC).

What is a standard?

Standards are an agreed way of doing things. Standards provide potential solutions to issues, resolve problems, provide a means of compliance with legislation and create commercial benefits such as trading opportunities. A prime example of this is the freight container standard (ISO 668).

Once it was published, it enabled transport companies and container manufacturers around the world to order from the same set of specifications. Trucks could be built in America to carry containers manufactured in Korea. Having an international standard for containers enabled companies and countries unfamiliar with each other to join new markets and trade with confidence.

Standards are generally voluntary, but can be mandatory when cited in Acts, regulations, or other legislative instruments.

Who initiates the development of a standard?

A wide range of private and public organisations initiate and help fund the development of standards. In many cases these are industry bodies or government departments.

How is a standard developed? Committee members who are experts in their fields draft the standard (or revise or amend an existing standard) and we manage the development process. We use a robust and recognised process that relies on expert committee consensus and widespread consultation with affected parties, including public input.

We have some of the best and brightest people within their fields serving on standards development committees. Their time, expertise, and knowledge are crucial to delivering standards solutions that are relevant and practical.

Why do we need standards?

Standards improve our lives in a wide number of ways.

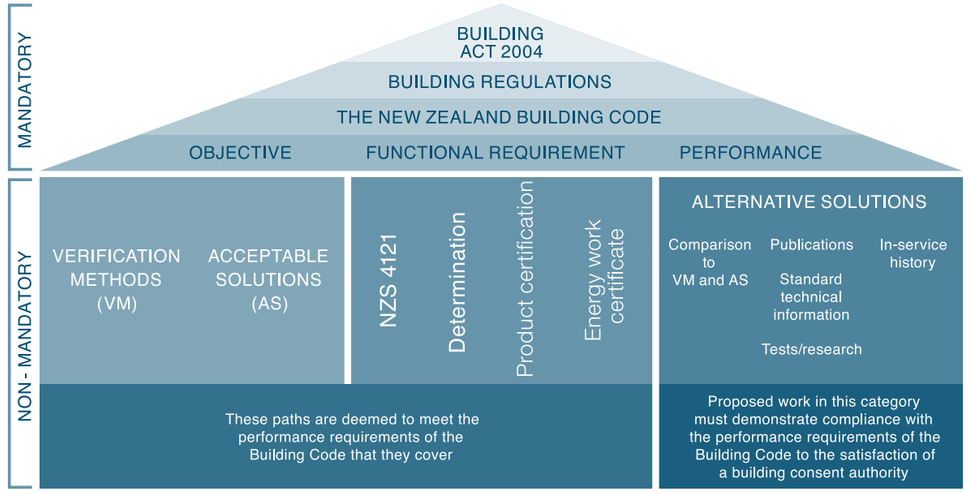
- Standards help to keep our homes, buildings, playgrounds, and health services safe. They help to prevent accidents and injuries in a broad range of areas.
- Standards minimise the impact of potential disasters such as earthquakes, or fires and electrical hazards, and they improve the quality of goods and services.
- A standard can enable highly technical information, often needed to support policies or legislation, to be written into a document to aid understanding of context by users. An existing standard can help minimise unnecessary duplication, confusion, and inconsistencies.

What about standards and the building industry?

The New Zealand Building Code

- Acceptable Solutions – specific construction methods, some for simple residential buildings, that when followed are deemed to comply with the Building Code.
- Verification Method– methods of testing, calculations and measurements that when followed are deemed to comply with the Building Code.

Hierarchy of New Zealand Building Controls



Many buildings, particularly more complex projects or renovations, rely on alternative solutions to demonstrate compliance with clauses of the Building Code. This is where all, or part, of the building design differs from an Acceptable Solution or Verification Method, and other means are used to show how building work still complies with the Building Code.

Standards and other cited Acceptable Solutions and Verification Methods are not mandatory requirements for compliance with the Code. However, they provide crucial, practical guidance on how to comply with the Building Code in a cost-effective way.

NZS 3604:2011 Timber framed buildings is a good example of an Acceptable Solution to the Building Code. NZS 3604 is used to design most homes and other low-rise timber-framed buildings in New Zealand. It provides prescribed methods for the design and construction for timber-framed, low-rise buildings to meet the requirements of the Building Code without the need for specific engineering design. By limiting the size of the building and scope of application, NZS 3604 presents a series of solutions, enabling a designer to select an element or detail without having to engage a structural engineer.

The use of standards in the building and construction industry offers several advantages. These include:

- industry acceptance of New Zealand standards – standards have a long and proven history in the building sector and are recognised for their independence and integrity. In light of this, and the technical expertise involved, standards produced by Standards New Zealand have a high level of industry acceptance
- flexibility to encourage and support innovation – standards are useful as a means of ensuring a continued flexibility and responsiveness of prescribed methods of compliance with the code performance criteria
- standards incorporate current industry best practice through the committee development process. They are living documents open to review and amendment to reflect changes in technology and practice
- amendments to standards can be developed and published relatively quickly compared to the time frames for revising legislation. Standards are more flexible than regulations in responding to and reflecting industry trends and developments

- access to international standards and expertise – as well as drawing on experts from New Zealand or the development of standards, Standards New Zealand has access to international standards and expertise through our membership of ISO and the IEC.

Recent changes at Standards New Zealand.

Following a review of New Zealand's standards and conformance infrastructure, the Standards and Accreditation Act 2015 came into force on 1 March 2016. This led to Standards New Zealand becoming a business unit within the Ministry of Business, Innovation and Employment.

We are part of the Consumer Protection and Standards branch in Market Services. We are led by the General Manager of Consumer Protection and Standards who was appointed as the independent New Zealand Standards Executive (the Standards Executive). The Standards Executive is responsible for functions formerly carried out by the previous Standards Council including managing the formation of standards development committees; the development of draft standards; reviewing and revising existing standards; taking responsibility for our membership of international standards organisations; reporting to the Minister on the standards work programme; and setting fees for New Zealand standards.

An independent statutory board – the Standards Approval Board – appointed by the Minister of Commerce and Consumer Affairs is responsible for approving the membership of standards development committees and standards that are developed by those committees. The Board meets once a month.

We continue to develop standards, support the work of our expert volunteer committee members to develop standards, and look to our nominating organisations to nominate committee members. We also continue to provide access to standards through our website www.standards.govt.nz

We would like your feedback on building underlays

Standards New Zealand and the P2295 committee are currently seeking feedback on the draft amendment to NZS 2295:2206 Pliable, permeable building underlays.

NZS 2295 is intended to provide practical guidance for manufacturers and importers of underlay material intended to be used in New Zealand, and for users specifying underlay to select the appropriate products.

The P2295 committee wishes to ensure that synthetic roof underlays introduced into the New Zealand market have properties appropriate to the range of conditions found in New Zealand buildings. The committee is undecided about whether the proposed new 'retention of condensate test method', or some variant of it, is the most appropriate means of ensuring condensation on the underside of the underlay is safely managed, at least for synthetic roof underlays.

You can view or download the draft amendment on the Standards New Zealand website. The closing date for comments is 27 January 2017.

Standards in the roofing industry?

"In fact much of what we do as manufacturers of metal roof and wall cladding, and rainwater goods is covered by a number of standards, NZS, AS and joint. This is not always appreciated by even our members and often not by users. This applies to the use in buildings as well, e.g. NZS 3604. NZMRM has been and is involved in a number of standards in both countries over the years. I plan one or more articles to talk about how standards do or should affect our industry and also what we have been doing on actual standards.

But to kick off this discussion we have the article above by MBIE/ Standards NZ. Way back in Issue 16 - sometime in 2007 - we asked Standards NZ for an article describing how standards work, and it now, with the absorption of Standards NZ into MBIE (if this is the right term) we asked them for an update, and here it is. Thanks to the author Jayne McCullum for putting this together for us".

Stuart Hayman

THE WOODLAND COTTAGE

When people build new, they often build big but that wasn't the case for the owners of this home in Fairfield, Dunedin.

Eric and Noreen Johnson wanted to keep their home at about the 150sq m mark on a reasonably tight budget.

"We didn't want to build big," says Eric, a retired roofer. "We wanted it small and intimate because the kids had left home so it was just Noreen and me, although we made it three bedrooms so we had room if the kids did come back home."

And when they teamed up with architectural designer Cameron Grindlay, of Dwelling Architectural Design, they also had another ambition.

As Eric explains, "We also wanted it not to look like all the other houses so we wanted to show that you could do something a bit different without a huge budget."
It helped that they knew the site well.

"We had a five-acre block and we subdivided off our old house and built on the remaining land," says Eric.

That left them a property of about 3800sq m with a bush backdrop, wetland and a blueberry field.
Eric adds, "There had been a granny flat where we built the new house so although it was a tight site we had a good feel for what it was like."

Cameron says the building platform was only about 400sq m but "the removed granny flat was quite a good reference point to make sure we had a good view over the landscape".

He said apart from size and budget, he had free rein and his aim was to "design a cottage with a twist".

"Eric and Noreen planned to down size while retaining their established wetland garden and blueberry orchard. The brief was to maintain privacy from the street while enhancing connections to the bush and garden in the rest of the house," Cameron says.

"The house was stepped to take into account the slope and the open plan living, kitchen area with sculptured windows and cedar were designed to maximise the views of the idyllic wetlands and woodlands to bring the outside in."
Cameron says longrun cladding and roofing was a logical choice for the home.

"Because Eric was a roofer and it's expensive to build in New Zealand I said to him we should use longrun roofing and some cladding and that way we can keep costs down," Cameron says.

"If you are going to do a gable, you have to either go steep or flat so I said, 'Let's go steep'. It's about 40 degrees."

He adds, "It's not the most attractive to have the garage on the street so we had to work out a way to soften it."

Cedar cladding – arranged vertically - is used inside as well although it is dressed as opposed to bandsawn and helps to create a sculptural element.

"I like longrun as a product, and I said to Eric that I would do some nice detailing around the doors and windows to give the design a lift and set it apart - so he would have to be on his A game."

The house itself has a gable roof with a garage out the front with a raked roof breaking up the angles.

When the owner, a retired roofer, and an architectural designer agree that it is the little things in a design project that sets it apart the result can be impressive. Combine this with the skills of C & J Building and the team effort is to be admired.

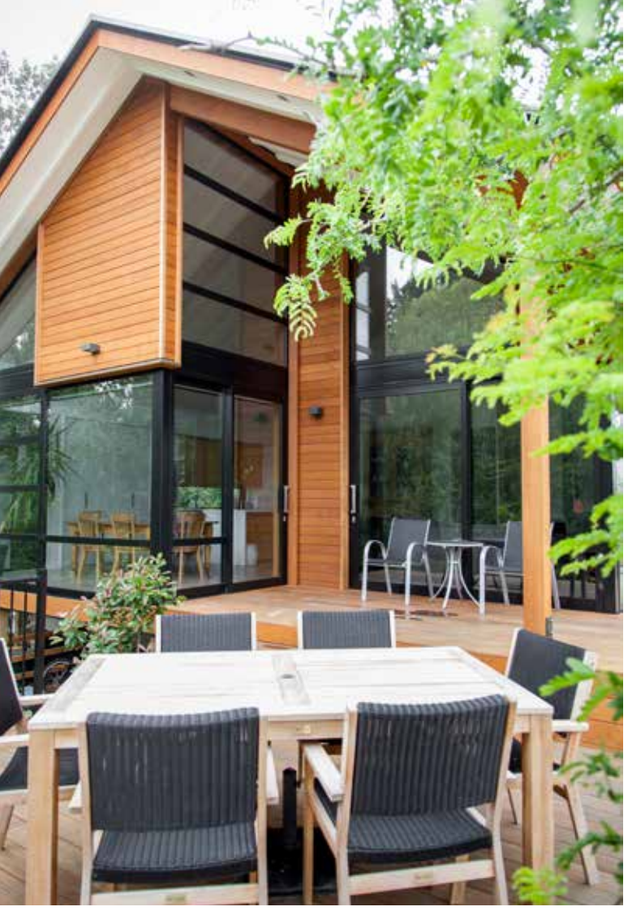
"We tried to keep things simple with the house but spend some money in the dining/kitchen/living area with the cedar and nice big windows to catch the views."

Cameron says the colour palette of the house's exterior – brown, black and white – was deliberately kept simple so it complemented rather than competed with the natural setting.

The layout of the home has the kitchen dining and living area opening to a deck to the north, with the master bedroom, en suite and main bathroom in the middle of the house off a hallway that leads to two more bedrooms and provides access to the garage on the southern end of the house.
Eric and Noreen's son Sam and his partner in C&J Building, Sean Crawley, took charge of the eight-month build.
Eric took care of the roofing and cladding, including the detailing around the windows which included making window sills out of Colorsteel.

"If I had to pay someone else to do the detailing I'd hate to think what it would cost," says Eric. "But because I was doing it myself I was prepared to take my time and get it right."

The windows also have fixed cedar slats that mimic the look of shutters, while exposed rafters in the eaves provide more visual interest.



The eastern side of the house - not seen from the drive - was totally clad in longrun to cut costs.
Eric says they didn't stint on comfort though with 150mm deep framing to accommodate extra insulation, underfloor insulation with ply lining, and double glazed aluminium joinery with a thermal break.

The log burner in the living area has a wetback connected to the hot water cylinder.

"Once the hot water cylinder is up to temperature, the heat goes to radiators in the hallway and the bedroom," says Eric.
Internal detailing includes a whitewashed plywood ceiling with negative detailing in the living area, and ply panels in the kitchen, which also has an office nook that can be shut away to hide paperwork.

LED strip lighting along the bottom of the large windows in the living room helps to create atmosphere. "And above the kitchen bench we have a long, low window instead of a splashback and that looks down into the bush," says Eric. There is another shot window in the en suite that also takes in the bush views.

The new property hosted the Johnsons' daughter's wedding, and Eric and Noreen couldn't be happier with the results.

"Cameron was brilliant to work with," says Eric ."He just clicked with what we wanted and got it right straight away."

Dwelling Architectural Design

Cameron Grindlay began his practice in 2012 with a desire to be more involved with clients in the whole design process, from 3D conceptual stage all the way through to contract administration, ensuring that what was designed is what gets built.

Cameron has 19 years experience in the industry. In that time he has learned the importance of the little things - the attention to detail that can set a great design apart from the rest.

His philosophy on design and sustainability is that design needs to be tailored for the site, be individual, and relevant to the client. It needs to be scaled correctly, minimising wastage. Materials should be selected with regard to their origin and availability.

He believes in thoroughness in design and documentation. "This allows the client to be certain about what they are getting and provides clarity for the contractor in pricing." During contract administration, he believes in working together towards a common goal. "The client, contractor, designer and consultants are on the same team, together working out solutions for the benefit of the client."

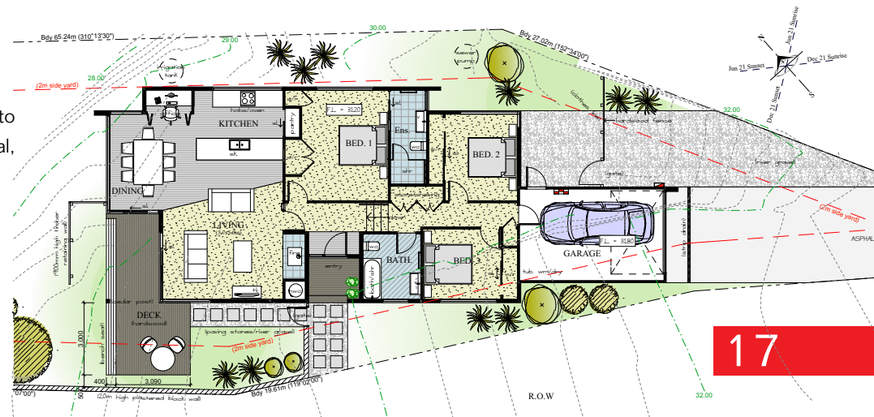
Architectural designer:
Cameron Grindlay
Dwelling Architectural Design, Dunedin
dwelling.arcdesign@gmail.com
Telephone: 022 063 7454

Roofing and cladding Manufacturer:
Dimond
0800 DIMOND (346 663)
Profile: V-Rib Black

Roofing and cladding installer:
Eric Johnson.

Builder: C&J Building,
Telephone: 0273011443.

Kelk Photography of Dunedin
Telephone: 03-477 7107



WHAT ROOF DOES A ROOFER CHOOSE WHEN A ROOFER ROOFS HIS HOUSE

Being a roofer, Jonathon Telfer had some creative ideas for the crowning glory of his family home in Kerikeri.

He had sketched out some plans of what the single level weatherboard home would look like before handing them over to Paul Spooner, of Spooner Architectural Solutions.

"I had hips and valleys and all sorts of things going on because being a roofer I thought I'll be able to put that on," says Jonathon. "I had almost a boomerang-shaped roof in mind but Paul simplified things and came back with the concept of having the ridge line all at one level."

Paul also designed a home that had uniform gutter heights all around the home, meaning that with differing roof pitches on the wings of the house, the depth of the eaves had to be adjusted to create a seamless look.

Jonathon said that fitted with his idea of the roof being "a feature without being too over the top".

His roofing material of choice was Metrotile Royal, which has a textured finish in a shingle-type design.

"I went with the Metrotile because it gives the house an upmarket look and highlights the flat ridge line and the details of the variances in pitches," says Jonathon. "Also with Metrotile being lightweight roofing it's cost-effective because with something like a concrete tile roof you need beefier walls and foundations."

He adds, "I'm very familiar with the product and have used it on some group housing show homes. I like how it's finished and like working with the product."

Jonathon says using the 'Mesquite' colour added another layer of interest to the roof.

"I went with the grey fleck to help break up the look of the roof because I think with a solid colour impact would have been lost," he says.

"It's laid as a random fitment but as it comes out of the factory the grey flecks are also random so that helps to break up the pattern."

The judges of the 2016 RANZ Professionalism in Metal Tile Installation Award, sponsored by Metrotile, certainly liked the look and finishing of the roof, announcing Telfer Roofing as winner

.

Jonathon says, "I always knew it was going to be a nice roof but it wasn't until we finished and stood back and looked at it that I knew how good it was."

He says the project came about because he and his wife Janine had started a family and wanted to move into the Kerikeri School zone.

The brief to Paul Spooner was to design a family home that took in the lake views, with a master suite at one end and a children's wing

at the other end for their two pre-schoolers. They also wanted a space where extended family could live independently.

Paul Spooner says his design was aimed at making best use of the site in terms of the wind, the sun and the views.

He says, "The view to the lake is south-facing but the sun is on the other side of the house so the idea was to make the house one room wide on an east-west axis so you get sun and views. The house also serves as a barrier to the wind coming off the lake so that the courtyard off the kitchen is sheltered."

The main pavilion is 42m long with gables projecting from it at the eastern and western ends. There are also glazed gable ends either side of the main living space to create a view shaft from the outdoor area through the house to the lake.

A gabled roof form also extends north from the pavilion, housing the garage and extended family living space. This also serves to create privacy and shelter for the north-facing outdoor space that will eventually have a swimming pool and barbecue area.

Paul says while it is aesthetically pleasing to have a single ridge line and uniform height gutters, executing that look took careful calculation.
He says, "The overall form is a lot simpler but geometrically it is a bit trickier because you don't strike your valleys at 45 degrees and where the roof pitch is steeper you have to have a shallower eave to maintain the same gutter height.
"The end result is it looks simple but there is a lot of complexity hidden in there."

Paul says that while Jonathon and Janine wanted to sleep at the opposite end of the house to their children, he designed the home so that adults could sleep in close proximity if needed while they were young.

Paul designed a glazed gallery - to optimise the lake views - from the entrance to the children's wing that is wide enough that it could also be used as a play area.

With extensive glazing to the south, the insulation in the house had to be increased to meet the building code.
Paul's plan also made provision for timber decks at each end of house and one in the middle.

As well as installing a pool and finishing the barbecue area, Jonathon is landscaping the property. He has already formed garden areas with mulch and begun planting them out with palms. Irrigation and septic tank lines feed out to the gardens.
"As time goes on I can do the landscaping – it's something I enjoy doing."

Spooner Architectural Solutions

With a growing team based in Kerikeri, Spooner Architectural Solutions offers high quality design and documentation services for projects in a range of locations throughout New Zealand and the Pacific Islands. The benefit of technology and a commitment to commuting ensures clients are well served regardless of their location. Prior to starting the company in 2001, Paul Spooner was employed by some of New Zealand's most respected architects in the capacity of technician, designer and contract administrator. With 25 years experience in the field of architecture to-date, Paul has amassed considerable experience in the building industry, with key involvement in a large number of diverse projects.

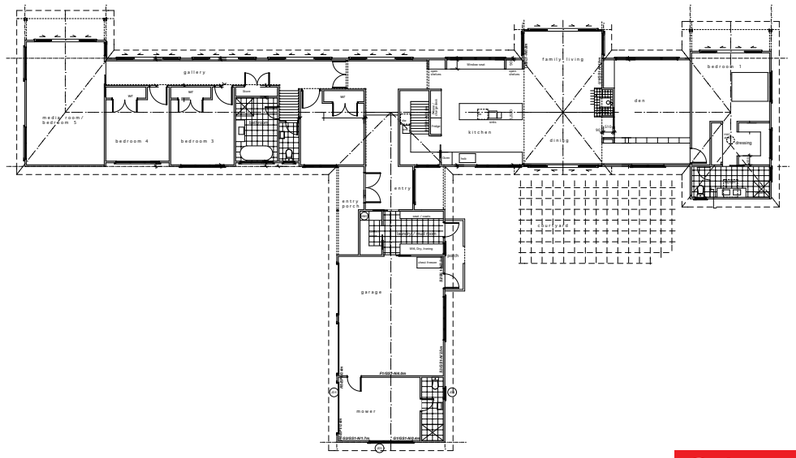
Paul is a Licensed Building Practitioner (Design) and a Professional Member of Architectural Designers New Zealand (ADNZ).

Architectural designer:
Spooner Architectural Solutions
Paul Spooner
Kerikeri
www.spoonersolutions.co.nz
Telephone: 09 407 3107

Roofing Manufacturer:
Ross Roof Group,
Roofing profile: Metrotile Royal
Colour: Mesquite
Telephone: 09 299 9498
www.metrotile.com

Roofing installer:
Telfer Roofing, Kerikeri,
Telephone: 021 347657

Builder: Calibre Homes,
Telephone: 021 915 616
E-mail: jake@calibrehomes.co.nz
www.calibrehomes.co.nz



PINE HARBOUR: AUCKLAND'S 'BEST KEPT SECRET' NO MORE

Pine Harbour on Auckland's eastern seaboard is already well known for its marina, boutique shopping, bars and eateries, walkways and nearby recreation facilities – and for its proximity to downtown Auckland via a 35-minute ferry service.

What house buyers in search of quality living are discovering is that Pine Harbour also offers the contemporary attraction of an exclusive, private community with a range of high quality, stylish new homes which add a compelling layer of panache to the meaning of 'lifestyle'.

Every home has been individually planned and created, most designed initially by award-winning Steven Lawson Architects.

Where else can you live, socialise and play in a safe environment, within walking distance of reliable transport to work? Where else can living be so cosmopolitan and convenient – so sustainable; so neighbourly and so 'today'?

Five years ago the then property developers Pine Harbour Living engaged Jalcon to be part of the team creating this nest of high quality modern living precincts.

With a portfolio of over 1200 Auckland-built homes and as many satisfied customers to their credit JAL Construction, trading as Jalcon Homes, has won multiple awards and a reputation for delivering original, elegant yet pleasingly convenient living spaces.

When Lindsay and Julie Aitken set up their Property and Construction company 22 years ago they were determined on three critical matters: they'd create a family-owned and managed business; that way they'd be able to guarantee integrity of design, build and finish; and they'd stand behind their workmanship with seriously meaningful multiple guarantees: a 10-year Master Build Guarantee, a 15-year Weather Tight Warranty and a 50-year Structural Guarantee.

Today that commitment is as strong as ever and as Jalcon continues to build well-designed, high quality homes in Auckland, it's not surprising that their reputation for excellence has made the company a natural partner in the Pine Harbour project.

Steven Lawson's brief was to design innovative buildings in harmony with the land and sea, so naturally the architects prescribed shades of grey, reflecting sea and sky scapes. Jalcon refined that prescription to New Zealand Steel's COLORSTEEL® Maxx® because that range has been specifically developed to withstand higher atmospheric salt concentrations and was therefore well suited to Pine Harbour's coastal location.

The development involves two distinct housing precincts: The Brae, where the surrounding grounds are managed, and The Quarters. A commercial and recreational area alongside the marina is known as The Landing.

Hugging the contours of the hilly 'brae' terrain, the 12 family houses on The Brae enjoy views to the north-east and overlook well-planted wetlands on the hillside behind.

These houses are in the style of a contemporary interpretation of the Cape Cod design – with a touch of the Kiwi boatshed and English beach hut, in keeping with the seaside location.

Modelling on their houses 'back home', the English colonists of the late 1600s built their new homes to withstand the vicious Atlantic storms. The typical Cape Cod cottage was steep-roofed and clad in unpainted cedar shake shingles which in time weathered from a warm tan to a silvery grey.

The individually designed houses on The Brae also feature cedar – and pine, with COLORSTEEL® Maxx® pre-painted steel facades and roofing in 'Smokey' and 'Thunder Grey', interspersed with wood finished in paint or stain. Splashes of vibrant burnt orange hint at the warm tan of fresh cedar.

While the Cape Cod home was 17th-century simple, without embellishment, designed for easy construction and efficient heating, these homes on The Brae are simple in concept, yet stunningly sophisticated in function.

All have modern layouts with an innovative use of space. Each contemporary two-storey house is designed to high specification, featuring 3-bedroom family homes; double garage with internal access; a study; vaulted ceilings and spacious, natural-light filled open-plan living areas, leading to covered decked areas, which encourage appreciation of the views and enjoyment of year-round outdoor/indoor living.

With less travel time comes less stress, leaving residents with more time to relax in peaceful surroundings in good company.

More leisure time means Pine Harbour's The landing is a vibrant focal point, an open space bordered by a blend of restaurants, cafés and bars, and yet but a stroll from The Quarters and just a couple of minutes walk from The Brae. Adjoining The Landing is the Village Green where a Saturday Fresh Market flourishes and community events are staged.

Nearby, The Quarters overlook the marina and The Landing. This precinct hosts both sophisticated lock-up-and-leave terraced housing on the north side – now completed - and exclusive west-facing seaview apartment-style living where construction has just begun.

Until recently Pine Harbour was surely one of Auckland's best-kept-secret residential housing developments where, as Jalcon claims, their houses are 'designed for living and built for life'.

Steven Lawson Architects

A design intensive practice with a deep commitment to innovative buildings that engage with New Zealand's culture and landscape

Established by Nicholas Stevens and Gary Lawson in 2002 with the aim to produce an architecture of humanism, spirit, culture and community.

The practice has 13 resident staff working across the spectrum of architectural design, including residential, multi-residential, public, commercial, educational, cultural, interior and landscape architecture.

To their credit they have won numerous awards for architecture, including the 2015 New Zealand Architecture Medal (New Zealand's highest honour) as well as 18 NZIA National Awards and the Home of the Year a record four times.

Architects:
Steven Lawson Architects
Auckland
Telephone: 09 377 5376
mail@stevenslawson.co.nz
www.stevenslawson.co.nz

Client: Jalcon Homes
Auckland
Telephone: 0800 52 52 66
www.jalcon.co.nz

Roofing manufacturer:
Steel & Tube Roofing
Auckland.
Telephone: 09 274 4056

Profile: Plumbdek
COLORSTEEL® Maxx® Colours:
Smokey and Thunder

Roofing Installer:
Counties Manukau Roofing
Telephone: 09 238 0085

Building Contractor: Jalcon Homes
Telephone: 0800 52 52 66

TEXTURE, COLOUR, CONVENIENCE AND FLAIR:

This house has it all.

Amy and Lance Vincent love coming home. It's like finding a box on the doorstep, gift-wrapped in textured black and tied with the sunniest orange ribbon you ever did see.

That's in some measure a gift from the architect. Architect John Chaplin of Chaplin Crooks Architects is Amy's Dad. When they bought the Mt Pleasant section the Vincents knew they wanted a home designed around their young family's lifestyle. They also knew who to turn to.

They drew on John's experience over the past 35 years of designing on the Christchurch Port Hills. His design maximises both the best views and the shelter and sun for the two outdoor living areas strategically placed at each end of the house.

The Vincents didn't want a big house – just a functional family home, with flair. John obliged with a stunning architectural statement, flawlessly implemented by Chris Shearer Builders whose firm has been building for as long as John's been an architect.

The compact 250m2, 2-level house shouts ‘street appeal’. A palisade of eye-catching orange Corten weathering steel panels fringes the road-facing garage. This startlingly sunny orange is set against the almost-black façade of the house itself. The exterior Metalcraft Corrugate cladding is a blend of vertical Colorsteel® in Flax Pod, one of New Zealand Steel’s seven new Architectural Series contemporary colours, and Shadowclad plywood panels in the deeply black Nero of Resene. The COLORSTEEL® Endura roof and all flashings, spouting and downpipes are also in Flax Pod.

The colours and textures of these exterior building materials demand to be acknowledged, especially so when the concrete stack bonded block wall forming the entry and car parking retaining wall is factored in, along with the smoky-toned exposed aggregate finish on the driveway and pathways.

On the house’s eastern face Nero is replaced with Resene Starstruck-painted ShadowClad, similar to the bold gold of a kowhai tree – perhaps to harmonise with the resident kowhai tree, perhaps to echo the colourful Corten, and certainly to welcome the morning sun. The house’s relatively flat mono-pitched roof line blends with the Canon Hill terrain and surrounding trees.

The block wall extends the full length of the house, forming the main spine and supporting the upper timber framed floor while also enclosing the garage. This stands forward of the front of the house and forms the west-facing upper terrace, onto which opens the main living area on the upper level.

Set on a concrete slab, the lower level extends about 1500cm into the excavated hillside and back partly under the upper level to include, along with the garage, entrance way, two double bedrooms and a bathroom.
The upper level has a long north-facing open-plan living, dining and family area which, to the east, opens out onto a slightly raised timber deck with steps down to a lawn. Here, shaded by their kowhai tree and other natives, the family can enjoy the shelter and natural tranquillity of their back yard while, to the west, the lounge opens invitingly to the terrace and the colourful warmth of its Corten balustrade.

Big windows throughout the house invite light and sunshine which dances off the walls during the day, to be replaced with strategically focused downlights at night.

The centrally located kitchen is recessed, giving access to all living areas. A skylight shafts extra light to the kitchen while the stunning black splashback hosts a myriad of kinetic reflections. This is in contrast to the white painted Gib board interior walls and ceilings and white kitchen joinery, doors and fittings.

Flooring throughout the open-plan living areas and in the commanding entrance way is in European oak boards in a wood-warm off-white toning which offsets the crispness of the white interior. Bedrooms and the family area are carpeted in similar but warmer tonings.

Floor and walls of all bathrooms are tiled in translucent marble, complementing the prevalent monotone white. Spectacular colours come with the furniture and artwork.

A glass front door opens to a generous double-storey entry over which hovers a chandelier. A stairway floats up to a corridor which connects the master bedroom and ensuite, laundry, bathroom and study. Double-doors from it open to the living spaces on the northside.

Though difficult, the east-west orientated section itself was a rewarding find for the family. Sited on the ridge of Canon Hill, it slopes gently uphill from the neighbouring Mt Pleasant School. The original house was damaged and then demolished following the February 2011 earthquakes and eventually the 580m2 section was put on the market, its mature trees left pretty well undisturbed.

In the wake of the earthquakes, John’s focus has been on designing for the reconstruction of his city. That’s involved many challenges including helping clients with their rebuilds in the face of bureaucracy. John believes there are many lost opportunities around the post-earthquake city where hillside sites have been abandoned or shunned. He maintains that, with careful design based on essential geotechnical expertise, smart architectural alternatives can overcome established mindsets.

Chaplin Crooks Architects

Chaplin Crooks is a cross disciplinary community of talented individuals who collaborate to produce outstanding architecture, urban design, landscape and interiors. Since 2003, our practice has been heavily involved with producing quality buildings up on the hill and out across the city with particular focus on reviving our city in the wake of the earthquakes.
Chaplin Crooks are the Christchurch Architects who are willing to go the extra mile for their clients.
Chaplin Crooks Architects believe and live what we do. Our team endeavour to create visionary solutions for a client’s brief with careful consideration to cost and complexity.

Our Goal
Winning briefs with the right people – people like us and people we like.

To ensure clients like working with us because we are approachable and know that we will enjoy working together to find the best solutions for their brief rather than producing a standard formula building.

The Joy of Design
It is our belief that the design and building of a home or building should be a wonderful and memorable experience. It is your life and investment in your future which must enhance your ideals and needs.

Architect:
John Chaplin
Chaplin Crooks Architects
Christchurch
Telephone: 03 384 9602
E-mail: john@ccarchitects.co.nz
www.ccarchitects.co.nz

Cladding & Roofing manufacturer :
Metalcraft Industies
Telephone: 0800 333 056

Profile: Corrugate COLORSTEEL®
Colour: Flaxpod®

A WORK OF ART

It takes imagination without limits, a personality stimulated by challenge, and a combination of engineering skills and experience to turn a utilitarian roofing material into an ingenious work of art.

Steven Clothier has been making iconic landmarks around New Zealand from corrugated iron since he built the Tirau Dog I-site in 1999. This started Tirau's renaissance into the 'Corrugated Capital of New Zealand' and initiated an unexpected career path for Steven.

Demand for his skills in manipulating iron into art has become a full-time business for the qualified mechanic and multi-skilled handyman. He now has a full-time assistant and twin workshops, with the second 8m x 12m bay devoted to taking corrugated iron to forms undreamed of by its manufacturers. (The first bay is dedicated to his passion for Mercedes G-wagon modifications.)

Working only by commission, the three-man team (his wife does the administration) has constructed thousands of Creations. From the entrance signs at Wellsford and Warkworth, a huge range of corrugate work in Tirau and kiwis in Otorohanga, to as far South as the Whistling Frog in the Catlins...many are on public display though many more populate private gardens.

"The variety of our customer's requests continuously amazes us – which is what keeps the job interesting", said Steven. "We have no desire to churn out hundreds of the same things – though we can never make enough small pukekos for the garden. It is much more stimulating to build the largest pukeko in the world – and then try to erect it in a swamp in Otorohanga. Or experiment with different things to make a string of pearls on a stiletto-wearing pukeko for a jewellery shop in Tirau." (He ended up using painted ball floats.)

An addition earlier this year to Tirau's compilation was a six metre high Ram's head adjacent to the Tirau Sheep. Originally commissioned by his brother and partner who were selling merino clothing in the building at the time, it had been a construction Steve thought would add to Tirau's status. "We bounced around a lot of ideas. Originally they wanted a lamb – but how do you make a baby that needed to cover a building the same size as its 'mother'? It would've looked like two-headed GE sheep. Then maybe a cow which would make a triptych." Steve suggested a ram which he thought was the perfect solution – until he looked closely at a ram's horn and realised how much work would be involved. "It certainly wasn't one of those jobs you do for profit,' he said wryly.

While the Dog is on a wooden frame and was constructed in situ, the Ram was built on a galvanised pipe frame in the workshop. "We have been using 0.40 gauge ZINCLAUME® corrugate from Roofing Industries for years but in this case I got them to corrugate some aluminium for me."

Easier to curve into the tight folds that corner the triangular horn, Steven found the aluminium great to work with.

More recently a 4.5m high rooster wearing an Akubra cowboy hat has been constructed for a retailer in Brisbane.

"Australia has these huge pylon signs, and they are big, dominant and numerous on the street our customer is on – so we had to do something to make an impact and grab people's attention. And of course, it had to reflect our customer's business which is lifestyle farming and gardening supplies."

The colourful rooster, now christened Ted, is certainly a landmark, but building for the other side of the Tasman presented its own set of requirements. Shipping being a substantial portion of the final cost, the rooster was made to the maximum size that could be crated into a container. Three double-sided tail feathers and a front wing were removable, but able to slot into the internal pipe frame on installation and were packed down into a custom crate.

Internal pipe sleeves were built into the frame so the Rooster could be slipped over foundation poles – contrary to his usual practice of building the footings into the Creation itself. "It substantially reduces size and weight that way, which all saves on transporting costs, and made it easier for them to comply with and sign off on the Australian legislation regarding installation."

Even so, total weight of the Rooster in the crate was 578kg.

Corrugated iron has long been embraced by New Zealanders for versatility and Steven has taught himself numerous ways to work it to get the effect he wants. Baby iron, layered pieces, curved iron, kinked iron – it is all cold cut with a nibbler and riveted into place.

"Once we turned up to install a sign the owners wife had ordered for his brand new million-dollar building but there was no way he was letting us go near his new shed with a drill. Once we explained our construction process and assured him that our Creation would last as long as his shed, he was OK. We have confidence in our product and in our methods."

But that definitely has its pluses and minuses, the Creation can outlast the business or building owner with the new owner modifying their Creation into something quite different, but it is still credited to Corrugated Creations.

"We sometimes cringe as we drive past a 15 year old piece we have made covered with moss and bird droppings or repainted in a way different from ours. But what can you do? I am sure artists who work with more temporary mediums never have this issue."

members, and business customers open more branches or new enterprises. Also the relationship they establish. Schools often get involved with the design process or come and see, and 'help' with, the construction, and Steve's favourite customer still drops him in a chocolate cake on a regular basis. Something, he admits, earns her a pretty good discount.

"Sometimes I wish I had another 100 hours in the week so I could indulge myself and build some

Personally, Steven would prefer to leave most of his Creations unpainted. "It shows the texture of the workmanship – the cutting and riveting, and the character of the ZINCALUME® itself." Something he obviously appreciates as he clad his home and workshop in ZINCALMUE®. But as most of his work is large and viewed from a distance, and his customers want colour so roofing paints are applied for impact.

They have been surprised at the number of repeat customers. Private customers come back for more or purchase for family

of the concepts in my head," said Steven. "But at the end of the day we get a huge sense of satisfaction out of producing for the customer something that fulfils their needs, and a Corrugated Creation that (hopefully) exceeds their expectations.

Design: Steven Clothier
Corrugated Creations
Telephone: 07 883 1898
s@corrugatedcreations.co.nz
www.corrugatedcreations.co.nz
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REMODELLING SYNLAIT

The New Zealand dairy industry has experienced tremendous growth over the last decade as global demand for our milk products has significantly increased. This increase in demand has seen the need for the expansion of the Synlait processing plant in Dunsandel, just out of Christchurch.

The project involved remodelling the previous office block into a new staff café and construction of a brand new state of the art 3585m² administration block and testing laboratory which complements the renewed café. The design brief was to create a vibrant workplace that encouraged a sense of wellbeing and connectivity amongst the staff. Once the open plan, colourful interior had being designed, careful consideration was taken in selecting the exterior materials to bring it to life. The popular combination of steel cladding, precast concrete and cedar timber was chosen.

EuroTray® with an angle seam finish in the colour Slate by Calder Stewart Roofing was chosen as the predominant cladding option. The colour Slate has a deep, earthy tone that contrasts beautifully against the thousands of metres of Titiania Mega5® and V8® roof and wall cladding on the main production and storage facilities. 1460 metres of EuroTray® and 2800 metres of custom folded flashings were used in creating the seamless tray cladding. The details involved in achieving the look are very intricate, behind every tray there is a series of flashings and hooks which the tray is then folded onto, locking it into place without any visible screws or rivets. Every rib, corner and angle is carefully considered so that all of the trays line up perfectly and are spaced evenly from one corner to the next.

It's this level of expertise and in depth thought into how the finished product will present that Calder Stewart Roofing look for in their approved installers. It's an entirely new skill set compared to the installation of a corrugated iron roof and this is why we only work with approved installers on our architectural range. When our clients come to us asking for high end architectural products, the expectation is high. The product needs to be installed correctly so the ribs line up providing the home owner and architect with an aesthetic finish. Calder Stewart pride themselves on delivering with attention to detail as their name and product reputation is on the line.

Architects:
Opus Architecture Hamilton
Telephone: 07 838 9344

Manufacturer:
Calder Stewart Roofing.
Head office: Invercargill
Telephone: 03 214 5544
www.calderstewart.co.nz
Profile: EuroTray®
Colour : Slate

Roofing Installer:
CS Roofing Canterbury.
Telephone: 03 338 0400
info@csroofingcanterbury.co.nz
www.csroofingcanterbury.co.nz

WYLLIE COTTAGE, GISBORNE

As the first colonial home built on the northern side of the Taruheru River, Wyllie Cottage holds a special place in the history of Gisborne.
The city's oldest surviving European house, Wyllie Cottage is thought to have been either built on the riverside site or moved there between 1871 and 1874.

Most likely built by John Forbes for James Ralston Wyllie and his wife, Kate, of Maori descent on her mother's side and a daughter of one of Poverty Bay's earliest settlers.
It faced across the river towards the centre of Gisborne, a small settlement at the time.
Some 12 to 15 years later, it was moved about 50 metres and re-oriented to face Stout Street, where it sits today, alongside the Tairawhiti Museum, where it has been used as an exhibition space to give an insight into colonial times.

It was continuously occupied between 1886 and the 1970s, mainly as a tenanted cottage but also it served as an early schoolhouse. In the 1970s it faced demolition but the local community rallied around to save it and have it refurbished.
It was then fitted out as a cottage museum and served that purpose up until last year when it again required repairs and restoration so it could continue as a public display space. The cottage is one and a half storeys and is built predominantly of Kauri framework, beaded tongue and groove vertical boards and battens, and beaded tongue and groove kauri interior linings and kauri floors and stair treads. It has an outshot or lean-to added to the back of it with skillion roof that is thought to have been added as soon as the main building was erected, to meet the requirements of a large family.

Over the years Wyllie Cottage has been modified and 'modernised', making for a challenging restoration project, which was overseen by conservation architects Salmond Reed.

Salmond Reed's Conservation Building Surveyor Tracey Hartley prepared a conservation plan for the cottage to return it to the condition it was in after it was moved in the late 1880s to the Stout Street site. She also took the opportunity to repair its many defects.

Work included new corrugate roofing and the reinstatement of the swept verandah roof. Joinery repairs have been undertaken to the exterior weatherboards, and windows that had been installed in the 1970s have been replaced with more authentic windows in the style of the surviving 19th Century windows.

The chimney stack has been reduced in height well below the roof to remove the earthquake risk that this imposed on the structure. And the building has been painted in an historically accurate decorative scheme internally and externally.
When it came to the roofing, Tracey Hartley says they opted for a True Oak profile with heavy lead flashings for a traditional look. She says, "The original cottage on the earlier site nearby, at the bottom of the section, had a shingle roof. When the building was moved 12 to 15 years later that roof was probably in poor condition because it was covered over with a corrugated iron roof immediately. So it always had a corrugated roof on the Stout Street site.

"In the 1970s when it was 'restored' they decided to put shingles on. These failed within a short period and were not suited to the altered verandah because of the low pitch. Our analysis concluded that the roof should be corrugated steel as always intended for the site and a swept verandah roof - not the shingled one."

Local firm Tony File Roofing, which had put on the shingle roof about 15 years ago, was employed to execute the job. While the cottage is small, some details were complex, Tony File says "Because one of the original roofs was traditional galvanised steel corrugate with heavy lead flashings - 25kg/m2 lead as opposed to the normal 17kg/m2 - we had to produce a special run of galvanised steel coil that was colour coated double-sided in Pioneer Red – with two months lead time - because you can't use lead with a

ZINCALUME® substrate".
"Because of the concaved (exposed) front veranda roof and veranda balustrade cladding, this coil was specified to be double-sided colour coated as well."
He adds, "The small flat roof to the back porch, the spouting (continuous Old Gothic in 125mm and 150mm sizes, and the downpipes (63mm and 75mm) were manufactured by B.J. Moss Ltd from pre-weathered quartz zinc, supplied by Wakefield Metals."

"All the pre-weathered quartz zinc was specified to be soldered so we engaged the services of an experienced craftsman who still remembered and could execute the art of making, cutting angles and soldering together complicated downpipes.

Craftsman plumber Bruce Ledger, of local firm B.J. Moss Ltd, took on the soldering job.
As Roger Moss says, "That was originally how it was done. Put it this way, there was no silicone used on the job. And there was a bit of work involved with the soldering itself and then afterwards you have to clean it all down to get the quartz off it and wire brush it."
The spouting and downpipes, which had handmade stainless brackets, were post-painted.

Tony File says the material for the flashings – made by B.J. Moss Ltd – was also double-sided galvanised steel in 'Pioneer Red'.
Bothwell Construction repaired parts of the structure affected by rot and with the help of Awapuni Joinery reinstated fretwork, mouldings, windows and doors.
Tracey Hartley says choosing a colour scheme for the exterior of the cottage was also a challenge.

"There are only black and white photos available of the period we were restoring to, but they show clearly the three 'tones' of the decorative scheme, which we have followed even to the painting of the mouldings on the posts a different tone.
"Windows (opening parts) were nearly always painted an off-white in this period, the walling material was usually a mid-tone and the darker tone used for the trim, surrounds, barges etc. There were fewer pigments available in 1896, and these would have produced creams, browns, reds, greens; a very limited palette.
"The boards were investigated and evidence of dark cream was found. The doors had been removed and so are not original, but mostly doors were brown. The surrounds, trim etc – we chose as a traditional red, but it equally could have been a brown. So all we can say is that the cream and brown and off-white are accurate – the red is likely or probable – given other examples elsewhere that have been found."
The resultant colour scheme has the windows 'Off White', surrounds in 'Red Ember', doors in 'Brown', and the boards and battens in 'Cream' using predominantly linseed-based paint, which Tracey says is better for the health of the timber than modern acrylic paint and has a traditional matt look.
While trying to reinstate the cottage's traditional look, work was also done on bringing the electrics and fire safety systems up to modern standard so that the building is protected for the long-term.
Wyllie Cottage is expected to re-open in the near future with new displays

Salmond Reed Architects

The team at Salmond Reed Architects, Auckland, provides a one-stop solution for all heritage architecture projects. Their services include architectural design, feasibility studies, condition surveys, project administration, and specialist heritage advice. Salmond Reed Architects is passionate about ensuring the on-going use of historic places.

Architects:
Tracey Hartley
Salmond Reed Architects
Auckland
www.salmondreed.co.nz
Telephone: 09 445 4045

Roofing and balustrading supplier:
BJ Moss Ltd, Gisborne
Telephone: 06 867 1219
www.bjmoss.co.nz

Profile: Roofing Industries True oak
Double sided galvanised G2
Colorsteel®
Colour: Pioneer red

Lean-to roof, spouting, downpipes:
Pre-weathered quartz zinc, supplied by Wakefield Metals
Telephone:0800 255 638

Roofing and plumbing:
Tony File Roofing Ltd,
Gisborne
Telephone: 06 867 0794.

Main contractor:
Bothwell Construction,
Gisborne,
Telephone: 06 868 0065.

Joinery: Bothwell Construction and Awapuni Joinery
Gisborne
Telephone: 06 867 3301.

Engineer: Spencer Holmes
Wellington
Telephone: 04 472 2261

Painting:
Neil Anderson Decorating Ltd,
Gisborne
Telephone: 06 868 4313.

For further information on Metal Roofing or Cladding or details of any of the articles which appear in this publication please contact any of the members listed below.

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Members of the NZ Metal Roofing Manufacturers Inc.

A Ellery & Sons Ltd
PO Box 178
Greymouth
Telephone: 03 768 5029
Contact: Clark Ellery

AZKO Roofing Limited
41 Shakespeare Road
Christchurch
Telephone: 03 365 9808
Contact: Maurice O'Flaherty
www.azko.co.nz

B J Moss Ltd
PO Box 1007
Gisborne
Telephone: 06 867 1219
Contact: Roger Moss
www.bjmoss.co.nz

B R Roofing & Walling Co Ltd
Ford Road
Onekawa, Napier
Telephone: 06 843 6968
Contact: Phillip Fendall

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Invercargill
Telephone: 03 214 5544
Contact: John D'Arcy
www.calderstewart.co.nz

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Takanini, Auckland
Telephone 09 268 1555
Contact: Nick Claridge
www.continuous.co.nz

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Annesbrook, Nelson
Telephone: 03 546 4260
Contact: Dave Freeman
www.contourroofing.co.nz

Dimond
PO Box 13546
Otahuhu, Auckland 1643
Telephone: 09 622 4625
Contact: Aidan Taylor

Franklin Long Roofing Ltd
PO Box 151
Pukekohe, Auckland
Telephone: 09 238 9249
Contact: Warren Oliver
www.franklinroofing.co.nz

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Canterbury Long Run Roofing, Ashburton
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Roofing Solutions, Dunedin.
P.O. Box 2317
Stoke, Nelson
Telephone: 03 5443108
Contact: Shane Atherton
www.roofing.co.nz

Gerard Roofs
PO Box 18071
Glen Innes, Auckland
Telephone; 09 521 8792
Graeme Wilson

HB Longrun Ltd
PO Box 3056
Napier
Telephone: 06 843 6159
Contact: Chris Patheyjohns

Marshall Industries Ltd
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Invercargill
Telephone: 03 218 2579
Contact: Tom Marshall
www.marshalls.co.nz

Metal Roofing Systems Ltd
PO Box 117
Takanini, Auckland 2245
Telephone: 09 268 8959
Contact: David Moselen
www.megamiroofing.co.nz

Metalcraft Roofing
PO Box 51286
Pakuranga, Auckland
Telephone: 09 274 0408
Contact: Tony Barbarich
www.metalcraftgroup.co.nz

Metal Design Solutions
PO Box 33
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Telephone: 09 294 9134
Contact: Jan Alberts
www.metaldesignsolutions.co.nz

Ross Roof Group
PO Box 72-062
Takanini, Auckland
Telephone: 09 299 9498
Contact: Sean Wu
www.metrotile.com

Queenstown Roofing Ltd
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Telephone: 03 442 3883
Contact: Bill Giller
www.qtroof.co.nz

Quin Roofing Ltd
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Levin, 5540
Telephone: 06 3679480
Contact: Bruce Love
www.quinbuildings.co.nz

Roof Manufacturers Limited
PO Box 319
Tauranga
Telephone: 07 578 2650
Contact: Martin Smith
www.roofman.co.nz

Roofing Industries Ltd
PO Box 302 385
North Harbour Post Centre 0751
Telephone: 09 414 4585
Contact: Paul Ross
www.roof.co.nz/

Roofline Products Ltd
PO Box 16302,
Christchurch
Telephone: 03 349 8439
Contact: Colin Megaw
www.roofline.co.nz

Silbery Long Run Ltd
69 Montgomery Crescent
Upper Hutt
Telephone: 04 526 9343
Contact: Angie Silbery-Dee

Steel and Tube Roofing Products
PO Box 204216 ,Highbrook,
Manukau 2162, Auckland
Telephone: 09 273 7628
Contact: Rod Newbold
www.steelandtube.co.nz

Stratco (NZ) Ltd
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Christchurch
Telephone: 03 338 9063
Contact: Andrew Staff
www.stratco.co.nz

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King Country Longrun
PO Box 36 Stratford
Telephone: 06 765 5191
Contact: Darrell Back
www.steelformers.co.nz

The Architectural Roofing Company
PO Box 8052
Hornby, Christchurch
Telephone: 03-3445991
Contact: Bruce Gibson
www.trayroofing.co.nz/

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