

Welcome To Lockwood

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For almost seven decades, the Lockwood name has been synonymous with quality high-performance buildings. We've built our reputation by creating homes and commercial structures on a simple foundation: Lockwood is designed for good. Engineered from locally sourced timber, every Lockwood represents the pinnacle of solid wood construction, with proven durability, resilience, thermal comfort and low maintenance built in.

Our story started in 1951 when founders Jo La Grouw Snr and John van Loghem developed the first solid wood character homes. Their patented Lockwood Building System soon revolutionised the building industry, locking timber boards together with aluminium x-profiles.

From day one, structural integrity and aspirational design went into every Lockwood, establishing our lasting reputation for homes of outstanding quality.

Over the years our company has continually refined our products with technical innovations and contemporary architectural design. That's why Lockwood homes are built quickly and efficiently, and are CodeMark certified.

With more than 50,000 homes delivered locally and internationally, our unique construction system has passed the test of time. And today, Jo and John's legacy lives on, with every Lockwood thoughtfully designed and meticulously engineered in our Rotorua factory.





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The Lockwood Building System



External Insulated Board

The Lockwood 107mm external insulated wall system has been rated with an R-Value of 2.1, well above the requirement for solid timber buildings in New Zealand. This rating is achieved with the use of a foam insulation which has been pressed between solid timber wall components.

With minimal connection between the internal and external elements, there is little heat loss in the building envelope.

Vertical Tie Rod

Lockwood homes are braced against extreme weather events and earthquakes by tie rods. The steel tie rods are installed into the pre-drilled internal and external walls.



Patented X-Profile

The Lockwood building system is unique. Solid timber boards and aluminium profiles are locked together by our patented x-profiles rather than nails. The result is a strong versatile building system.



Low Maintenance, High Durability



Our advanced extruded aluminium sheathing is coated with coloured polyester resin which provides a long-lasting finish. Mechanically pressed onto the engineered profile of the exterior boards, the aluminium cladding looks good for years, and means Lockwood buildings don't need frequent painting.

Lockwood Manufacturing

The process of creating a bespoke timber home is a fascinating one and showcases the premium nature of our product.

Since 1951, Rotorua has been the home of Lockwood manufacturing. This is where your solid timber components and joinery for your new home will be precisely manufactured to exacting standards, before being delivered to your site.

The experienced Rotorua manufacturing team are supplied with production plans, drawn from your consent plans by Lockwood's drawing team. These detail the size of each board and beam and every electrical, power and tie-rod hole along with all joinery specifications.

The production team then handcraft each piece of componentry that is shaped into your new home. All Lockwood supplied components are packed in a quality-assured process and delivered to site in a way that is designed to maximise construction efficiency.

Our team of skilled craftsmen are committed to consistent quality and production standards, with a deep sense of pride in this family owned business and to the final outcome of a safe, secure and beautiful new home.

When you build with Lockwood, you'll be invited to visit our manufacturing facilities and see your very own home componentry passing through 22 pairs of dedicated hands, while you discover the world of Lockwood!



Sustainability

Lockwood builds homes that are healthy and comfortable for those who live in them but at the same time, are good for the wider community and the environment.

Lockwood homes are constructed using sustainably sourced plantation pine. Wood is the Earth's most renewable raw material and using it is vital in the fight against climate change. As trees grow, they absorb CO2, removing and storing the carbon while releasing oxygen back into the air. The more carbon that is taken from the atmosphere, the better off our entire world will be. Not only does wood take less energy to produce, it also releases less CO_2 , than other building materials (such as steel and concrete) during manufacture. As a rule of thumb, if you substitute one cubic metre of concrete for cubic metre of timber, you will eliminate approximately one metric tonne (1000kg) of carbon dioxide from being emitted into the atmosphere.

Building with timber ensures Lockwood homes are durable, strong, warm and dry. The use of local materials also supports the local economy and the many people employed in the forestry sector as well as minimising transport emissions.



Resilience

Lockwood homes have the advantage of being strong and resilient, designed to withstand earthquakes, cyclones and powerful winds. Our beams, posts and exterior walls are laminated for structural strength.

A standard Lockwood home was subjected to 22 simulated earthquakes of up to 7.0 on the Richter scale over six weeks of laboratory testing and survived completely undamaged. The windows still opened freely and the glass remained intact. Lockwood's ability to stand strong was evidenced by the performance of Lockwood homes in Christchurch and more recently in Kaikoura. Minimal damage was reported with no Lockwood homes requiring structural repairs.

More recent proof our system's durability was evidenced by Lockwood homes and buildings standing strong during hurricane Michael in Florida and typhoon Mangkhut in Micronesia.





Lockwood Exterior Wall Insulation

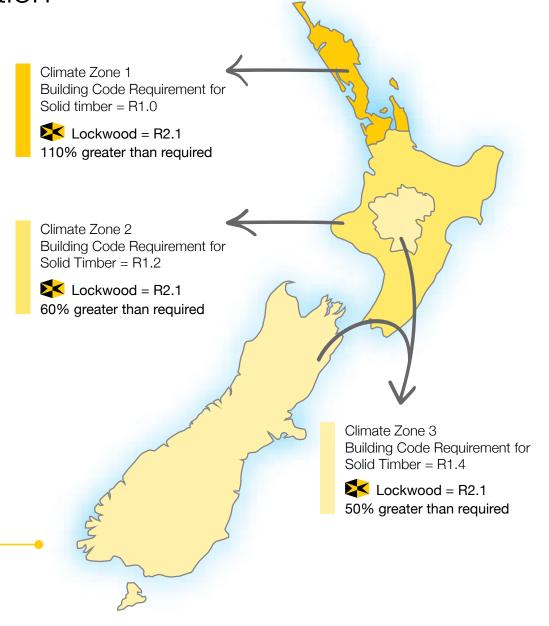
To ensure New Zealand homes are fit for purpose, they must have adequate insulation for their location. The requirements vary for different parts of the country, more insulation is needed for houses in colder climates.

Lockwood's exterior wall system comprises a tight sandwich of solid timber and foam insulation which has excellent thermal performance and boasts one of the highest R-values per cm of thickness for any insulation material.

One way the level of insulation in any building material is measured or rated is in terms of its thermal resistance, or R-Value. Thermal mass is another important factor in ensuring your home stays warm and dry. Thermal mass is the ability to absorb and store heat energy, meaning homes built with materials with high thermal mass require less energy to heat, cool and ventilate.

Solid timber homes have higher thermal mass than conventional timber framed homes. Traditionally, brick and concrete were thought to outperform solid timber for insulation and passive solar heating properties, but studies conducted at Lincoln University in 2007 have shown solid wood to provide up to 2.5 times the thermal mass of concrete per kilo. Unlike concrete or plasterboard, timber also has the ability to "breathe", absorbing moisture and regulating temperature making your home more comfortable and more energy efficient. Superior thermal mass also means solid timber homes, such as Lockwood, have lower R-Value requirements than conventional construction.

New Zealand is divided into three climate zones with minimum R-values for each zone based on different construction types. This illustration shows how the exterior wall of a Lockwood home exceeds the required R-Value for all zones.





CodeMark

CodeMark Certification is a nationally recognised form of product assurance which provides an easily-understood and robust way to show that a building product or system meets the requirements of the New Zealand Building Code.

Lockwood has achieved CodeMark certification for our complete wall system. This includes the external insulated wall, solid timber interior walls, the specialised joinery, and our patented x-profile jointing system.

We continually demonstrate that the ongoing quality of manufacturing is up to the exacting standard required to maintain our CodeMark compliance. In other words, from design right through to the final build process, it's always done 'The Lockwood Way'. An additional benefit for the home builder is that CodeMark will assist in a smoother building consenting process, since under the Building Act, Councils are required to accept CodeMark product certification as evidence of compliance.

Job progress checklists and independent annual audits ensure that standards are maintained. A new CodeMark certificate is issued every three years after successful audits.



Lifemark®

Lifemark[®] is an independent certification system based on the design standards of accessibility, adaptability, usability, safety and lifetime value.

Lifemark[®] star ratings are awarded to homes that have been well designed and when built are easy and safe to live in for a lifetime.

A new home design is rated against the Lifemark[®] Standards and awarded points based on how adaptable, safe and usable the home is. The better the rating (3, 4 or 5 Stars), the more it will suit your family's needs as they change throughout life. Lockwood is a Lifemark Accredited Partner and we have already designed a number of plans that have been awarded 5 star Lifemark[®] Certification. We can also design a custom solution for your needs and have it certified under Lifemark[®] once the design has been finalised.







Your Lockwood Build Options

Design and Build

The possibilities are endless when you work with Lockwood to design and build your dream home. We'll work with you through all stages to plan, design and build the perfect home to fit your lifestyle and budget. We take into account your site and specific needs, whether you're building a grand design, a family home, or a downsized retirement dwelling.

Quality time spent with our architectural designers at the beginning of your project will help you form and clarify your ideas, and inspire you to gain the best from your site, creating a home that is uniquely yours.

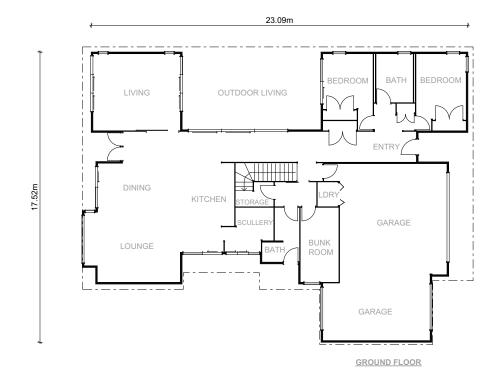
We are happy to work with architectural plans or your own sketches to bring your property dreams to life.

The Crang family's design and build home

In a design collaboration with Architect Jenny Walter, this design and build home makes the most of its narrow site on the waterfront in the Coromandel.

The Lockwood Coromandel team worked with the Crang's sketch plans, refining the design and creating a home with superb indoor-outdoor flow, important for the waterfront location. The family required communal spaces with areas for older children to relax with friends, and this has been achieved with a large open plan kitchen and dining area, bunk room for friends and a master bedroom retreat upstairs.

Entertainment decks have been well placed for either intimate gatherings or watching the world float by under wavy palms. These clients have incorporated interesting feature walls of dark painted timber inside the home, with a matching barn door to separate the two living areas. Louvered decks and extra storage under the stairs complete this holiday home.







8.33m



Your Lockwood Build Options Customise a Concept Plan

Since 1951, we have been designing and developing concept plans for clients in New Zealand and around the world.

Take inspiration from our vast range of client homes and concept ideas and work with our designers to individually tailor the plan to fit your site, style and budget.

Tony and Sue's Design Journey

For Tony and Sue, designing a new home was about making a space they could enjoy on their own, and share with their family and friends.

After disregarding their architect's ideas for the site, Tony and Sue engaged Chris Fraser and his local Lockwood team in Wanaka. Chris walked the land with them, and together, they embarked on a design process that would accommodate Tony and Sue's original ideas and create a home they could enjoy with their family for many years.

Tony and Sue wanted to incorporate covered outdoor living and entertainment areas and passive house features, making the most of their north-facing views.

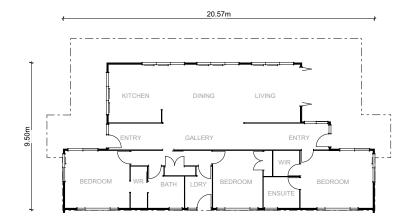
"Tony and Sue's site had great views. The challenge was making the most of that outlook while maintaining privacy" says Chris. "The existing Lockwood Pavilion plan provided the perfect starting point."

The soaring wing with laminated beams and large joinery openings captured the natural connection with the outdoors that Tony and Sue desired. The design was then customised to create sheltered outdoor areas, office space and other additional requirements.

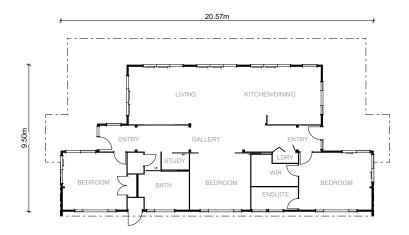
Tony and Sue are delighted with their new home. The interior showcases Sue's design flair and the special items they have gathered throughout their travels around the world. They also looked to support Wanaka based industry where they could, purchasing sustainably sourced redwood tabletops, serving bench and bench seats through a local timber craftsman, stone from a local quarry and an incredible stained glass window commissioned from local leadlight artist Jennifer Robertson.



The original Pavilion design - by architect Pete Bossley



Tony and Sue's modified Pavilion design





Your Lockwood Build Options

Lockwood Trussed

Lockwood trussed designs offer a cost effective way to enjoy a brand new Lockwood home of your own. These homes feature the full, low maintenance, Lockwood patented wall and joinery system with economically priced trussed roofs and plasterboard ceilings.

Choose the simplicity of a plan from our range of modern and practical concept designs. With designs ranging from 66m² to 191m², we are sure you will find a concept to suit your site, lifestyle and budget.

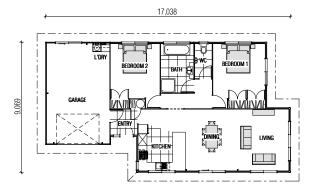
Lockwood trussed designs are fully customisable to your needs and site conditions to ensure your home is positioned to maximise space, views, privacy and sunlight. You also have the option to upgrade to timber lined ceilings.

Your local Building Contractor can take care of site surveys and building consents and manage the build process right through to handing over your keys.

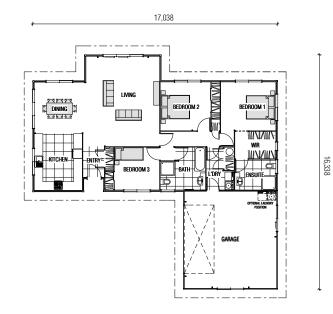




Manuka - two bedroom concept



Rimu - three bedroom concept



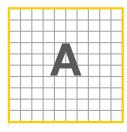




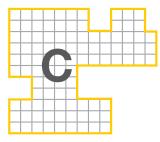
Planning to Maximise Your Budget

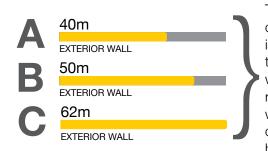
We understand that price is important when you're looking to build your new home. Often the first question homebuilders ask is "what is the cost per square metre?", yet the true cost of a home depends on many factors. The more we know about your site and your new home requirements, the more accurately we are able to price your build. We explore what impacts the coat per square metre in more detail below.

Shape Of The Home



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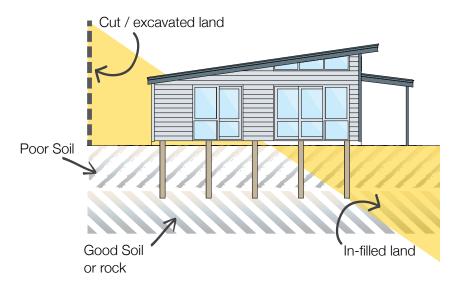
These homes have the same floor area of 100m² yet the perimeter wall length is different on each. Generally speaking, the exterior wall is the most expensive wall due to insulation and cladding requirements. A home with more exterior wall will likely require more joinery and a complex design will require more labour hours to build, all impacting cost per square metre.

Size Of The Home

Larger homes often have a lower cost per square metre simply due to there being more space to divide the costs into. With a smaller home you have less square meterage to divide the costs of expensive rooms such as kitchens and bathrooms into. Comparatively, a large garage, which doesn't require an expensive interior fit out, will bring down the cost per square metre.

Complexity Of Site

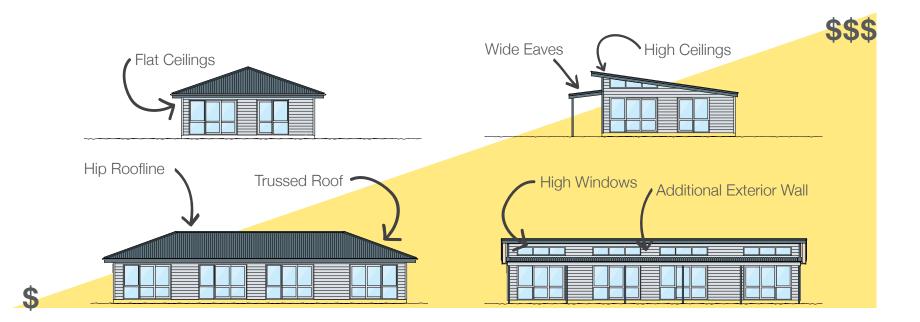
Building on sloping sites is more challenging because they require additional earthworks. So too are sites that are not on 'good ground', such as peat, organic soil or soft clay, which are more expensive due to extra foundation requirements. Distance to services, removal of greenery and access to the site will also impact on overall costs.



Complexity Of Design

A more complex home design will have a higher cost per square metre. Split level, double storey, or homes that need specific structural engineering are more expensive.

The examples below both share the same floor area yet the home on the right will be more expensive to build. The higher roofline, additional wall area and joinery as well as the high sarked, timber ceilings will all contribute to a higher cost per square metre.



The level of finish in your new home, room sizes, quality of fixtures and fittings and cladding options will also have an impact on your cost per square metre. It's important to consider all factors and ensure you get an accurate quote for your build, rather than an estimate based solely on the square metreage. We know that price is important. We offer our experience and expertise, working closely with you to plan your build to best fit your style, site and budget.



The Lockwood system – Just add your personal style

In addition to a beautiful, traditional, natural timber finish, you can combine all the benefits of the Lockwood system with a range of modern textures and colours.

Painted feature walls are easily achieved and can accentuate soft furnishings or capture your eye with pops of colour in a room. Colour co-ordinated doors are another way to bring complementary hues into your space. The selective addition of plasterboard gives you a canvas to showcase your design ideas. Nothing complements the beauty of timber like your favourite colours.

The interior Lockwood wall system can also be blonded, which provides a softer whitewashed finish to the wood grain and delivers modern, light and bright spaces. Blonded timber also works well in contrast to natural stone feature walls.



Interior Options

The interior of the Lockwood walls of your home can be finished in a number of different ways to suit your personal style. The blonded option gives the walls a soft, Scandinavian feel and can be applied in different levels to suit your tastes. Clear polyurethane can be applied to keep the character of the wood or natural oil can be used to enhance the depth of colour in your interior.

Another option is to request an upgrade to knot free pine which can also be finished using the blonding treatment, polyurethane or natural oil.

Clear Polyurethane

Clear polyurethane was used in this client home in Kaiteriteri, giving a warm, natural feel to the interior.

Blonded Knot Free Pine

Knot free pine was used throughout this show home. Two coats of blonding was then applied giving it a clean, calm vibe.

Blonded Walls

Two coats of blonding was applied to this show home in Papamoa giving it a light, Scandinavian look and feel.











Adding colour and texture

Individualise your spaces with pops of colour and texture. Add areas of plasterboard and wallpaper or paint to wall boards to create an eye catching feature in each room. Combine with a stunning stone fireplace or feature wall to complement the natural wood.

Painted Feature Wall

A feature wall painted in a deep blue is a bright pop of colour in this living room

Wallpaper Feature Wall

Plasterboard and wallpaper has been applied to one wall of this family room to create an interesting patterned feature wall.

Stone Features

Interior stone work around a fireplace adds an element of texture and works beautifully with the blonded wood.







Exterior Options

The exterior of your home can also showcase your individuality. Use any combination of Lockwood cedar, Lockwood engineered vertical grain pine (which can be painted in a range of colours), or opt for Lockwood's powder coated low maintenance extruded aluminium, available in various colours.

You can include stone work on pillars or incorporate it into barbecues or chimney features. Louvres, decks and pergolas bring interest and extend your living spaces. Maximise your indoor / outdoor flow with Lockwood's great joinery options.

Test colours and exterior finishes at <u>lockwoodcolours.co.nz</u>, an interactive tool built to showcase your style!

Cedar Exterior

Many people enjoy the look and feel of a cedar exterior. Cedar can be stained or oiled in a colour of your choice.

Aluminium and Vertical Grain Pine

A mix of aluminium and Lockwood's engineered vertical grain pine creates an interesting exterior feature wall.

Aluminium Exterior

Aluminium cladding is available in a range of powder coated colours to suit your style. It is a low maintenance and durable option for your new home.



International and Commercial Builds

The Lockwood Building System has been successfully and cost-effectively used in New Zealand and 30 countries around the globe. The flexibility of our unique building system is perfect for both residential housing and commercial applications.

Lockwood's solid timber interior and low maintenance exterior offers durability, design flexibility and aesthetics, capable of taking the knocks and bumps expected from a high-use commercial space. The physical characteristics of our pre-fabricated building system means they are ideally suited to remote locations and can easily be packed and transported to site. Depending on your needs, we can supply only the key building system components, or a complete range of supplementary materials including everything from kitchen to electrical systems, plumbing and electrical fittings, floor coverings, window treatments and appliances.

Project sites can be prepared while the Lockwood building components are being manufactured. Once the components arrive on site the build can be carried out by a minimum number of trained personnel, who are able to draw on a range of construction skills with specialist Lockwood building techniques. This ensures optimum quality control along with speed and efficiency of completion.

Many notable overseas projects have been completed over our history, including more than 400 homes in the Middle East, an events centre in Japan, a bank in Tonga and church buildings and hospitals in remote islands in the Pacific. Lockwood have also completed a number of commercial projects around New Zealand including a garden centre in Auckland, early childcare buildings in Wellington and motel units in Tekapo.

Visit <u>lockwoodcommercial.co.nz</u> to view case studies and learn more about Lockwood commercial buildings both in New Zealand and around the world. "What's become clear over the years is that these buildings are made to last. There's very little maintenance required, they stay very fresh and up-to-date looking. In the future, we are looking to add some more 3-bedroom units to our inventory and will revisit the Lockwood system. For resorts, I can highly recommend Lockwood."

- Rob Grant, owner Sea Change Villas, Rarotonga

This Lockwood home in Alligator Point, Florida, withstood 230km/hr winds and huge seas as the Category 4 Hurricane Michael hit the coast of the USA late 2018. It was one of the few homes in the neighbourhood to survive unscathed.

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We can build for clients in all corners of New Zealand. Please contact our regional sales hubs to see how we can assist in your area.

North Island Regional Sales Office

Cnr Fairy Springs and Russell Roads, Rotorua Ph 0508 LOCKWOOD (0508 562 596) Email info@lockwood.co.nz

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Contact us to start your home building journey today! Free phone 0508 562 596 www.lockwood.co.nz International (+64) 7 347 7691 Email info@lockwood.co.nz







