

Steel station keeps Gulf tropics in line



| Croydon's all-steel station.

Croydon Railway Station in Queensland's far-north Gulf Country is rare among public buildings.

While architects throughout Australia select steel for a variety of aesthetic and energy-saving reasons, Ipswich architect Bruce Buchanan believes steel was the only material he could logically specify for this public transport project.

The isolated heritage-listed Normanton-to-Croydon railway was built to link the gold-mining settlement of Croydon with the port of Normanton on the Gulf of Carpentaria in the closing decade of the 19th century. Because of constant attacks by termites, tropical cyclones and floods, engineer George Phillips specified as much steel as possible be used in the construction of the original line.

He even specified and patented moulded steel railway sleepers to keep the termites at bay.

While the line itself and its world-famous Gullflander railmotor train have survived countless floods and cyclones, the same cannot be said for Phillips' original Croydon station and corrugated iron carriage shed. Both were eventually blown away in a severe cyclone in 1969.

Replacement buildings, cobbled together from remnants of the originals, also succumbed eventually to constant assault from termites and tropical weather.

"When Queensland Rail sought to establish a new station, complete with facilities for passengers and train staff and a new carriage shed for the Gullflander motor and carriages, it was essential that the building be capable of withstanding anything the tropics could throw at it," Mr Buchanan said.

"Because many elements were prefabricated off-site, erection to lock-up stage took only three weeks, and the overall project budget (covering building, landscaping and services) was held at \$400,000."

All roofing and wall cladding is made from ZINCALUME® steel in CUSTOM ORB® profile.

Elements of traditional outback Queensland railway architecture have been used as reference points throughout, and the new building is evocative of the original 1891 structure. "The historical railway vernacular is expressed in the ventilated roof form, un-lined

Against stiff competition, Croydon Station has won the Metal Building Product Steel Design Award at the Australian Steel Institute Awards held recently at the Brisbane Convention Centre.

The station has also been awarded a Royal Australian Institute of Architects Regional Commendation for 2006.

walls, exposed galvanised steel wall framing, encircling verandahs and the large, relatively open carriage shed," Mr Buchanan said.

"The design also exploits natural ventilation, and energy-saving devices include the roof form, the raising of some wall sections above floor level, fixed louvre vents and roof overhangs to the verandahs. Despite constant tropical humidity, air conditioning is not mandatory.

"The large, open carriage shed, which shelters the passenger station wing from the western sun, has steel wall cladding finishing above ground to aid cross ventilation."

COLORBOND® steel covers Broome

Broome not only faces some of Australia's most extreme weather conditions, it demonstrates possibly the most extensive use of COLORBOND® steel in the country.

According to Broome Shire Council, the majority of roofs in this remote town on Western Australia's north-west coast are clad with COLORBOND® steel. A large number of walls, garages and fences throughout the town also use the same steel material to protect against cyclones, torrential rain, intense sunshine and extreme heat.

About 90 per cent of buildings in the Town Centre, known as Chinatown, are roofed and clad in corrugated steel.

Selecting the right building materials in Broome is vital.

One Broome-based building company that recognises the benefits of using COLORBOND® steel for roofing and cladding is Eco Constructions. Established in 1996 by builder/developer Karl Plunkett, the company specialises in providing sustainable homes and workplaces specifically designed for tropical living.



Eco Constructions, which builds according to a strict code of environmental practice, uses steel in all its buildings. Each home is designed to be as environmentally friendly as possible, using natural resources such as wind and sun to power and ventilate the home and minimising any impact on the surrounding environment.

"We use COLORBOND® steel as it is resistant to the harsh Broome environment and can withstand weather conditions that often plague the region – such as thunderstorms, cyclones and extreme heat," Mr Plunkett said.

David Bare, BlueScope Steel's National Marketing Manager, Building, said: "When building in extreme environments, steel really is the only sensible option. Towns like Broome, which are constantly battered by the elements, use a lot of COLORBOND® steel, which is a testament to the material's effectiveness.

"Steel gives something back to the environment by being completely recyclable. It is one of the world's most recycled products, with 70 per cent of scrap steel available in Australia being recycled and used in the production of new steel, ensuring it has as little environmental impact as possible."



Steel's fire resistant qualities were a key reason for its use as cladding at Thunder + Lightning Lodges.

Thunder + Lightning secures award

An award-winning ski lodge on Thredbo's Crackenback Ridge in the Australian Alps has secured a NSW Master Builders Association Housing Award in the Town Houses or Villas/ Dual Occupancy \$900,001+ category.

Combining luxury design with the durability and superior fire resistance required for a difficult environment, the Thunder + Lightning Lodges house two commercial ski chalets that use steel cladding products from BlueScope Lysaght extensively for roof and exterior walls.

Canberra-based architect Tom Kean, who specialises in larger-scale residential, commercial, retail and hotel developments, christened the development 'Thunder + Lightning' after a spectacular storm rolled in from the south as he was setting out the design on site.

Each three-storey, 250-square-metre chalet consists of a two-bedroom apartment with a separately keyed studio apartment sharing a common entry foyer.

Mr Kean reinterpreted the traditional terrace form to optimise the small building site, and to meet planning controls limiting the development footprint.

The Thunder + Lightning Lodges' design has both chalets back-to-back, instead of side-by-side, providing more privacy between the chalets and offering a distinct and separate outlook for each.

The use of steel cladding helped to overcome a major design challenge on the project – fire resistance. "Bushfires in recent years have seriously threatened Thredbo and have burnt out large tracts of the Kosciuszko National Park," Mr Kean said.

"The extensive use of plywood-based timber sheeting, on which Thredbo has relied heavily for many years, has become questionable. Some older developments incorporating these

products are suffering wear and tear, with cracking and high maintenance issues evident because of the harsh winter climate."

The decision to rely on natural dry-jointed field stonework and LYSAGHT® steel cladding for external facades was taken to provide low maintenance and a degree of fire resistance.

"I was conscious of avoiding a design that was a monotonous stone and corrugated steel box," Mr Kean said. "The range of COLORBOND® Metallic steel colours provided a timely solution."

The lodges' exterior features LYSAGHT CUSTOM ORB®, LYSAGHT CUSTOM BLUE ORB® and LYSAGHT MINI ORB® made from COLORBOND® Metallic steel in the colours of Facade, Cortex and Conservatory.

LYSAGHT CUSTOM ORB® has been used in horizontal and vertically opposed panels, together with LYSAGHT MINI ORB® in horizontal panels to detail cladding elements. LYSAGHT CUSTOM BLUE ORB® made from ZINCALUME® steel has been used to detail balustrades.

"The three LYSAGHT® products made from COLORBOND® Metallic steel pick up and reflect every nuance of changing light from the surrounding landscape," Mr Kean said. "When the weather changes, the facade responds."

Balustrade elements include LYSAGHT INTERLOK® II – more commonly used for shearing-shed flooring, but used here on balcony floors. These areas, typically high maintenance in Thredbo, are virtually maintenance-free and self-draining.

"LYSAGHT CUSTOM BLUE ORB® also features on the stair turret to each chalet," Mr Kean said. Mr Kean worked closely with leading Canberra builder Bellevarde Constructions on the project. Bellevarde Constructions principal John Fielding said construction was completed in several stages during the summer months.

LOX, stocks and barrel vault

The new liquid oxygen facility at Richmond RAAF Base west of Sydney is not your everyday building.

Not simply because it is located at the end of a military runway. Or because its form is unconventional – especially compared with other buildings scattered around this sprawling military base.

This building's near-uniqueness rests with the fact there are only a handful of such facilities in Australia, which – in turn – largely influenced its ultimate corrugated steel shape.

For those in the business, liquid oxygen is simply referred to as LOX.

The Liquid Dry Breathing Oxygen Maintenance and Storage Facility, to give it its full name, performs a specific task for the Royal Australian Air Force – it tests, maintains and services the oxygen (and nitrogen) used for breathing air on military planes.

"The new facility had to accommodate LOX liquid," architect Guy Luscombe of Campbell Luscombe Folk Lichtmam Architects said. "It has two main functions – storage and maintenance.

"For safety reasons each function is housed in a separate building. The storage building, essentially a rain and sun protection shelter, services the planes directly and abuts the main runway. Its roof is made from COLORBOND® steel in LYSAGHT CUSTOM ORB® profile.

"The maintenance building, the 'command module', is the more sophisticated structure and



Photography: Andrew Worssam

sits about 100 metres away. It has three main testing laboratories / workshops with smaller rooms for specific testing functions."

Construction of this command module borrows heavily from military 'shed' tradition. On the one hand it is somewhat reminiscent of the archetypal Nissen hut, used extensively by Allied forces during World War II. On the other, it borrows heavily from the basic design and shape of a plane's wing.

The building's single, streamlined form was

primarily influenced by its location at the end of the main runway and designed to resist noise and wind pressure.

The single, curved shell, clad in COLORBOND® steel in LYSAGHT CUSTOM ORB® profile, and highlighted in panels of COLORBOND® steel in LYSAGHT MINI ORB® profile, protects the sensitive procedures undertaken inside – and also guards the web of pipes, ducts and extraction fans that allow these procedures to be carried out.

Austec fires up demand for PANELPHEN insulated panels

Within months of releasing its revolutionary fire-rated PANELPHEN insulated paneling product, Sydney-based company Austec Panel Systems Australia has supplied several large New South Wales food preparation businesses.

PANELPHEN, which incorporates BlueScope Steel's recently released antibacterial COLORBOND® Permagard® steel, has been installed in food preparation and processing areas such as a million dollar meat processing factory in Sydney's west, Nestlé and Tip Top Bakeries.

PANELPHEN comprises two sheets of COLORBOND® Permagard® steel sandwiching a rigid flame-rated polystyrene/phenolic foam core.

COLORBOND® Permagard® steel incorporates Microban® anti-bacterial technology to inhibit the growth of harmful bacteria that can aid in cross-contamination and food poisoning, making the product ideal for food preparation applications.

Austec Panel Systems' Adrian Zadro said that while PANELPHEN was also ideal for cold



Adrian Zadro with Austec's fire-rated panel PANELPHEN at a new Emu Plains meatworks site.

store areas, it was also suitable for a wide range of other domestic, industrial and commercial building applications.

The product's FM Class 1 fire-rated accreditation – awarded by international insurance company FM Global – made it superior to traditional foam-filled paneling products, where fire performance is an important factor, he said.

"PANELPHEN can withstand extreme heat, which also makes it ideal for builders wanting to use the paneling in highly combustible situations,

such as work areas through to bushfire-prone sites," Mr Zadro said. "Wherever you can use lightweight building paneling, you can also use PANELPHEN – including on walls and roofs. PANELPHEN is also ideal for safe, clean working environments, giving flexibility in design.

"With many overseas-based companies recognising and standardising on FM Class 1 accreditation, we're starting to see products like PANELPHEN (FM Approved) being stipulated for new building projects across a broad range of applications throughout Australia," Mr Zadro said.

PANELPHEN structural panels come in a standard width of 1200mm and in thicknesses ranging from 50mm to 250mm. Austec Panel Systems can customise lengths to suit specific projects. AS1530.3 test results were: ignitability -18, zero spread of flame and a smoke index of 2-3.

With more than 20 years' experience, family-owned Austec Panel Systems has also built thousands of projects using another product it manufactures – PANELEX - Insulated Panel System.



Producing sustainable housing en masse

As a growing number of Australian architects expand the use of corrugated steel from residential roofs to external and internal walls, some believe the time is right to bring the techniques of mass production to bear on sustainable steel building products.

Sydney architect Sue Harper and environmental engineer husband Andy Irvine have developed a prefabricated steel building system they say makes it quicker, easier and cheaper to build a stylish range of buildings such as houses, cabins, schools and offices.

The system uses component-based rather than the traditional module or pod-based construction, allowing a house's ultimate design, shape and size to be determined by factors ranging from budget through to site positioning.

"Australian companies are producing some really innovative buildings that are rapidly changing the prefabricated and transportable housing sector, but much of it is based on building modules, rather than at the component level," Andy Irvine said. "The only way you can alter the look and size of many pre-fab houses currently available is to add another module."

Sue Harper developed the concept over a number of years while working in remote Aboriginal communities in northern Australia, basing it on a patented, self-supporting steel frame she calls a 'picture frame'. While the concept is architectural, the company is not simply aiming for the upper end of the residential market.

"We want to appeal to most home builders and institutional clients where sustainability and flexibility can have a real impact," Mr Irvine said.

Each frame is designed around the standard building size of 1200mm x 2400mm, and frames can be bolted together to form different sized rooms. Because they are all based on a standard size, components such as louvres, walls, windows, bi-fold and sliding doors are screwed into the frame 'skeleton', and can be easily upgraded or interchanged in a few minutes without any renovation work.

To improve environmental performance and fire resistance, Sue Harper and Andy Irvine are investigating a range of modular walling concepts – one based on polystyrene sandwiched by steel sheeting – that can be quickly and easily secured into the frames.

"Profiled steel sheeting in standard sizes can also be used to fit our frames," Mr Irvine said. "Sustainable products like ZINCALUME® and COLORBOND® steel in LYSAGHT MINI ORB® and perforated MINI ORB® profiles are ideal as they are lightweight and low maintenance."

These materials can also be used in features such as screens and in utility areas for internal walls.

Their roofs – skillion or pitched – are invariably made from corrugated steel. Walls, floors and roofs are usually insulated for added energy efficiency.

Because the frames are self-supporting, there is no need for internal structural walls, opening the inside of the house to almost infinite design possibilities. Flooring is based on 2400mm by 1200mm steel framing.

The couple has also developed what they call Pop-Outs – prefabricated bays that attach to the same 2400mm by 1200mm frames, allowing for small rooms such as kitchens, laundries, office space, wardrobes or ensuites to be included in new homes, or easily added to their existing homes.

"Because Pop-Outs bolt on to the side of the building, it's far easier to install plumbing, cabling and other services," Mr Irvine said.

"Sue designed the concept to be lightweight, cost effective to transport anywhere in Australia or shipped in containers, and easy to erect. Someone with basic building experience and basic tools should be able to erect one of our homes in a fraction of the time it takes to build conventionally."

The component nature of this building system means rooms can be added and extended – or removed – efficiently. In fact, a whole house can be disassembled in a matter of days and shifted to another site for erection.

And because so much of the building is steel, it can largely be recycled, adding to its sustainability, Mr Irvine said.

The pair built their prototype house on the Hawkesbury River north of Sydney several years ago. More recently they teamed up with owner/builder Liam Flood to complete another house on a difficult block on Dangar Island. All materials had to be barged in and the house has been recognised by various housing and architectural awards for its design and environmental performance.

The modular nature of Sue Harper's concept allowed this house to be a series of joined pavilions that take advantage of their steep bush surrounds, giving the feeling of living in a tree house.

"The beauty of our system is that as your budget improves, or needs change, you can simply remove cheaper components and add better quality materials, windows, doors and so on," Mr Irvine said. "You can also add Pop-Outs and extra rooms as the family grows."

Nomad shows the way

Sydney-based Nomad Manufactured Buildings is enthusiastically incorporating the latest round of insulation and design specifications into its wide range of manufactured building designs.

These specifications are stipulated by the new Section J of the Building Code of Australia (BCA).

Introduced last year, Section J lays down new minimum energy efficiency requirements for commercial buildings.

Nomad's new range of manufactured educational buildings for schools and colleges throughout New South Wales combines greater air flow with the look and feel of in-situ buildings. The company is also introducing the new Standards for customers in other industries – including health, mining and airports.

Nomad says it has developed a range of roofing and floorplan designs that are environmentally efficient, aesthetically pleasing, and blend into any educational campus or corporate environment.

Buildings are typically finished in COLORBOND® steel in a range of profiles, including LYSAGHT CUSTOM ORB® and MINI ORB® as well as LYSAGHT PANELRIB®, often in combination, and in a range of colours.

Roofing is almost universally LYSAGHT TRIMDEK®, also made from COLORBOND® steel.

Most buildings are classrooms and office buildings, with other projects including on-site

kitchens, ablutions blocks, churches, control rooms, refrigerated storage rooms, science labs and libraries – most fitted with access ramps and covered verandahs.

Each building has an internal switchboard for easy connection to a power supply when delivered to site.

Nomad has already manufactured thousands of single, double and triple classrooms and training rooms for a wide range of government and private schools.

"Clever design and some lateral thinking helps these buildings stay cooler in summer and warmer in winter, meaning less need for artificial heating and cooling," Nomad Manufactured Buildings' Director Glenn Stevenson said.

"These environmental benefits also deliver lower energy costs. The inclusion of newly developed insulation materials as well as flow-through air cavities minimises heat transfer into the roof. With raked and sloped ceilings, the result is more comfortable buildings to work in.

"Our new educational designs, for instance, are a far cry from earlier demountable classrooms found at many schools throughout the state."



Most Nomad buildings are classrooms and office buildings.

Nomad's patented Diplomat design – with a curved roof – offers a row of high-lite windows that allows greater use of natural light throughout the year, minimising the need for internal lighting and further lowering energy costs.

Nomad buildings are completely factory manufactured – usually in three-metre modules, which can be up to 15 metres long. The buildings are fully fitted out and detailed, before being split, transported and re-assembled on site.

"Staying a leader in the industry means you have to stay on top of new technology and be aware of design trends," Mr Stevenson said. "The versatility of the COLORBOND® steel range means we can almost infinitely vary the look of our buildings to suit individual tastes."

Steel strong and trendy in the Sunshine State

External feature walls made from COLORBOND® steel are emerging as a key trend in new homes being built in South-East Queensland.

John Franklin of Franklin Constructions said his company builds 25 to 30 homes a year in and around the Beaudesert Shire, about 64 kilometres south of Brisbane.

"More buyers are using steel to create striking features in their home," Mr Franklin said. "COLORBOND® steel is ideal for exterior cladding, and some buyers are also requesting features made from LYSAGHT MINI ORB®."

Franklin Constructions is a family-run business which sells off-the-plan and custom-designed homes, as well as commercial buildings.

"Most of our work is custom designing three- to five-bedroom homes for people who come to



John Franklin of Franklin Constructions outside one of his company's homes.

us with a pencil sketch of what they want," Mr Franklin said.

Homes built by Franklin Constructions sell from \$130,000, take six weeks to design and 12 to 14 weeks to build.

The company, a member of the National Association of Steel-Framed Housing (NASH), only uses the LYSAGHT® Welded Steel Building Frame System – a termite-resistant, high-strength framing system that doesn't warp, twist or shrink.

Franklin Constructions is a member of the STEEL BY™ Brand Partnership Program.

"We use the STEEL BY™ program stickers on all our frames to show we proudly

support Australian-made steel."

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Endeavour Awards still open

The 2007 Manufacturers' Monthly Endeavour Awards, sponsored by BlueScope Steel's STEEL BY™ Brand Partnership Program, are still open to all Australian manufacturers that have been operating for at least two years.

The awards, now entering their fourth year, cover eight major categories:

- Import Replacement of the Year
- Technology Application of the Year
- Innovative Product of the Year – Consumer
- Innovative Product of the Year – Industrial
- Exporter of the Year
- Environmental Solution of the Year
- Safety Scheme of the Year
- Young Manufacturer of the Year

An overall winner will be selected from those categories and awarded the top prize – Manufacturer of the Year 2007 – in recognition of the winning company's demonstrated innovation and excellence.

Nomination forms and conditions are available in the latest edition of *Manufacturers' Monthly* magazine or online at www.ferret.com.au/FerretAwards/Mmawards.asp. Entries close soon.

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Coomera Waters eco-friendly development

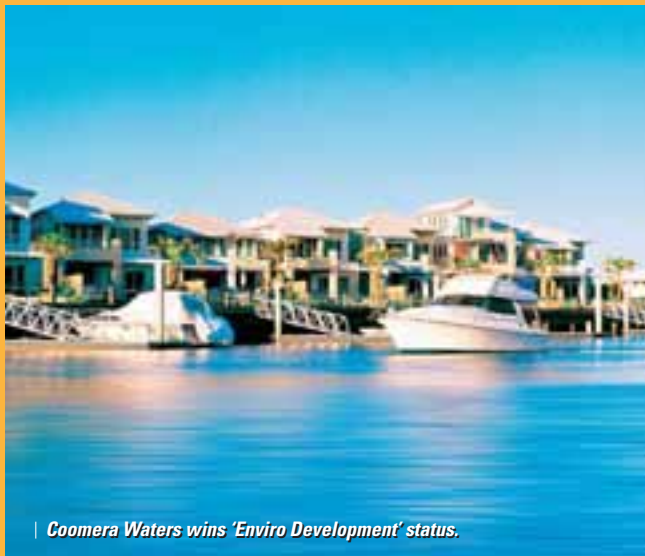
A large eco-friendly development in Queensland successfully combines environmental sustainability with the benefits of living in the south-east of the state.

Coomera Waters, a 496-hectare site on the Gold Coast, offers a community-based lifestyle consisting of more than 1300 homes surrounding a 17-hectare lake with a 72-berth marina and marina village, interconnected by more than 20 kilometres of eco-walking tracks and extensive parklands and reserves.

The development is a haven for birds and wildlife, with nature reserves, wetland and parks all designed to support local flora and fauna. It was designed around significant trees and large tracts of wetland, melaleuca stands, a eucalyptus forest, and an expansive salt marsh area known to provide habitat to the Richmond Butterfly, Spotted Mangrove Mouse and Greater Egret.

The properties themselves have been designed and built to reduce their long-term impact on the environment and to promote eco-friendly community living. To do this, developer Austcorp has focused on various ways to promote energy efficiency throughout the development.

In recognition of its environmental sensitivity, Coomera Waters was recently awarded the prestigious 'EnviroDevelopment' status by the Urban Development Institute of Australia. It is one of only



Coomera Waters wins 'Enviro Development' status.

five developments in Australia to be given the certification based on strict scientific benchmarks for environmentally sustainable developments.

Latest design principles and building products have been used throughout Coomera Waters to enhance visual aesthetics and ensure thermal efficiency in the homes to minimise environmental impact, reduce electricity consumption and save air conditioning costs.

Light and mid-coloured roofs such as those made from COLORBOND® steel – the first surface the sunshine will hit on each home – are mandatory throughout.

Roofs made from COLORBOND® steel are lightweight, with a low thermal mass to help

reduce the amount of heat radiated into the homes as the outside temperature cools at night.

COLORBOND® steel is 100 per cent recyclable, so at the end of its service life it can be used again and not wasted.

"This is a huge and exciting project for us," Austcorp's Queensland General Manager Kerry Spencer said. "Eco-living now guides many people's expectations, and Coomera Waters is proving successful with our target market.

"We continue to spend a lot of time researching the best ways to make Coomera Waters a different and environmentally sustainable development, and we are pleased with the results.

"Austcorp recommends steel roofing products, such as those made from COLORBOND® steel, across the development because it helps us to satisfy our energy efficiency goals. Also, it is desirable in terms of look and feel because of the range of colours available – it helped us create the overall contemporary, luxury style of Coomera Waters."

Simon Charrington, Market Development Manager at BlueScope Steel, said: "We are delighted to be involved with Austcorp on a cutting-edge eco-development such as this. Steel is a great choice for this type of community because it is energy efficient, low maintenance and can withstand extreme weather conditions – a real issue in Queensland – and it is fully recyclable.

"Everyone involved in Coomera Waters is proud of it."

Steel against storms

More Queenslanders are turning to steel roofs to protect their homes against extreme weather, according to the Metal Roofing Industry Association of Queensland (MRIAQ).

Severe storms are a frequent hazard, particularly north of the Tropic of Capricorn. Because they can be localised weather events, not usually affecting wide areas, the devastating impact of storms is often underestimated.

However, the Federal Attorney General's Department says severe storms are responsible for more damage nationwide – as measured by insurance costs – than tropical cyclones, earthquakes, floods or bushfires.

"Queensland receives its share of severe weather, and the building industry has evolved to help owners protect their properties and belongings against severe storm damage, particularly from hail," MRIAQ President, Dean Chandler, said.

"Because of its strength and durability, steel

roofing is an obvious choice for homeowners keen to safeguard their homes. It delivers peace of mind regarding the long-term security of what is typically a home owner's largest single investment."

Roofing made from COLORBOND® steel is ideally suited to Queensland's various weather conditions because it has been designed and tested specifically for local conditions.

Seven Australian outdoor exposure testing sites operate in regions providing a range of varying – and extreme – climatic conditions. One of BlueScope Steel's first testing sites, established at Rockhampton, was selected for its combination of high temperatures, humidity and rainfall.

Outdoor product testing is conducted in conjunction with accelerated corrosion and weather testing in BlueScope Steel's laboratories. Because of this, roofing made from COLORBOND® steel comes with a 30-year warranty, depending on terms and conditions.

Andrew Flourentzou, Managing Director of Stoddart Building Products, Australia's largest



domestic roof fixing company, said steel roofing had increased impressively in popularity over the past 10 years.

"Steel roofing is rapidly becoming the first choice amongst many home owners, builders and designers, because of its durability, reliability and suitability to the environment," Mr Flourentzou said. "People want to know the roof over their heads will protect them and their belongings, and stand the test of time through all kinds of weather."

New homes steeled for success in the country

Country-style homes with frames made from TRUECORE® steel and roofing made from COLORBOND® steel are proving a winning formula for New South Wales builder GJ Gardner Homes.

Owner of the Central Coast operation Gary Palmer said his company builds about 30 homes a year, with the Country Living Collection one of his most popular ranges.

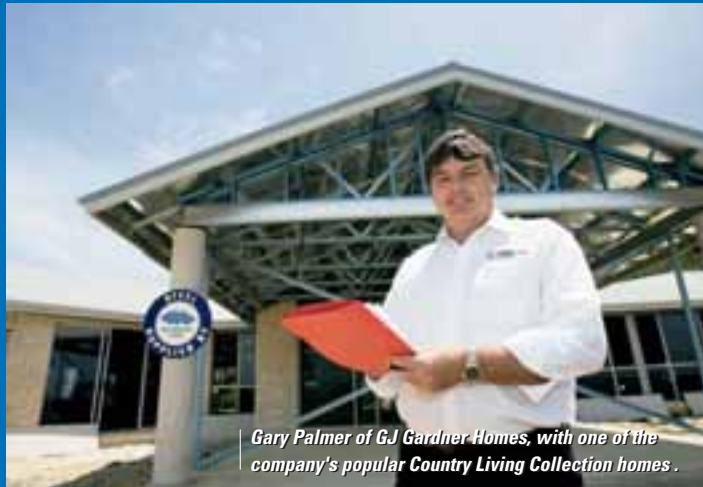
"We've just built our ninth Country Living Collection home," Mr Gardner said. "It's 58 metres long, has six bedrooms, and uses Steel Building Systems Australia's Supaloc framing system made from BlueScope Steel's TRUECORE® steel."

The patented Supaloc framing system allows for quick, easy assembly because of truss-to-truss connections that do not require screw-fixing onsite – the hip and jack trusses clip into each other.

Mr Gardner said the flexibility of GJ Gardner Homes' designs had allowed the owners of the six-bedroom home to add an extension for the in-laws.

"About 80 per cent of homes in our Country Living Collection feature roofs made from COLORBOND® steel, and a third of the homes have a Supaloc framing system made from TRUECORE® steel," he said.

GJ Gardner Homes also uses cladding made from LYSAGHT MINI ORB® for external feature walls, and BlueScope Steel rainwater goods.



Gary Palmer of GJ Gardner Homes, with one of the company's popular Country Living Collection homes.

The Stafford, priced from \$321,000, is the top-of-the-range design in the company's Country Living Collection.

"Most builders offer country-style homes in the traditional rectangular design with a wraparound veranda, but our Stafford design has a criss-cross layout," Mr Gardner said.

"Stafford-design homes are unusually large at 497 square metres, with five-plus bedrooms, four bathrooms, a bar and games room, and car and boat garages."

GJ Gardner Homes offers a range of 30 homes, and each can be customised to buyers' needs.

"Most customers are second or third home buyers who know what they want," Mr Gardner said.

He said the company also catered to investors with a range of duplex homes.

"We team up with local developers who own parcels of land, and build investment homes as turn-key operations – tenants just need to arrive with their furniture."

GJ Gardner Homes offers customers a five-star performance guarantee on all homes.

"We like to keep our customers involved by having them inspect and sign off each stage of the building process," Mr Gardner said.

The company is a member of the STEEL BY™ Brand Partnership Program.

"You can't beat the service, support and quality provided by BlueScope Steel,"

Mr Gardner said.

"We can't afford to build homes that aren't right the first time. We know we can rely on BlueScope Steel products for quality and our customers' peace of mind."

Mr Gardner said the company was currently building six three-bedroom, double-storey units at Rutherford on the Central Coast, and had a further 10 projects in the pipeline.

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Innovation drives Gutter Protection Systems

A Queensland company has used cutting-edge aviation technology to develop a new, patented gutter protection system made from COLORBOND® steel.

Gutter Protection Systems, which invented its 'contoured gutter protector' using manufacturing techniques similar to those used in the aviation industry, is now looking for national distributors to supply and install the product.

"We aim to have 10 Australian distributors operational by mid-2007, each supplying and installing three average-sized homes a week with contoured gutter protectors," company owner Mark Leech said.

With more than 30 years' experience as an aircraft maintenance engineer, Mr Leech has developed an iron tooling system that matches the gutter protector to the shape of the roof it is being attached to.

"The system consists of a steel profiling tool designed in one of several shapes to fit the contours of roofs made from COLORBOND® steel or tiles," Mr Leech said.



Mark Leech of Gutter Protection Systems.

"The profiling tool stamps one edge of the gutter mesh into a rubber block – called a rubber press in the aviation industry – to shape it."

This process creates a three-dimensional edge that is fitted to the roof, while the other edge remains flat so it can be screwed to the lip of the gutter.

The contoured gutter protector is made from COLORBOND® steel that has been converted from sheet to mesh form. It comes in the full range of COLORBOND® steel colours, and Gutter Protection Systems offers a 25-year lifetime performance warranty.

"The product is fire-safe so it's ideal for bushfire areas," Mr Leech said.

Gutter Protection Systems is an enthusiastic member of the STEEL BY™ Brand Partnership Program.

"We joined the program to align our company and products with the strength and quality of the BlueScope Steel brand," Mr Leech said.

"People instantly relate to BlueScope Steel products as quality Australian products, and we want to be seen as a quality manufacturer who uses them."

For more information contact:

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How to join STEEL BY™ program

For more information call Steel Direct on 1800 800 789 and ask for an information brochure and registration form.

Superior Steel Screens' secret of success

Brisbane-based company Superior Steel Screens is harnessing the power of the internet, which now generates almost half of its sales of shade, privacy and security screens.

Almost 40 per cent of the company's leads come from the internet and in the five years since it started its national campaign, annual turnover has tripled.

This spectacular growth has allowed the company to spread its wings and venture into overseas markets such as Malaysia and New Zealand.

Established in 2001 by Andrew Turnour and Des Leahy, Superior Steel Screens began with just six distributors and now runs a network of 22 national and international distributors and franchisees.

The company provides a range of stylish, versatile screens offering privacy, shade and security for commercial and residential buildings. These screens are used on windows, arches, carports, pergolas, spas, patios, gates and fences.

All Superior Steel Screens products are made from COLORBOND® steel, ZINCALUME® steel or Stainless steel, sourced through distributor Smorgon Steel.

According to Production Manager Rita Turnour, the secrets to the company's marketing success have a lot to do with advertising in a wide cross section of media such as magazines, television, radio, the Yellow Pages and on five different websites.

"Our franchisees, particularly in Brisbane, Western Australia, the ACT, Townsville and

Steel screens stronger than timber.



Bundaberg, have all shown solid growth due to a combination of product promotion and the suitability of Superior Steel Screens products for any climate," Mrs Turnour said.

The company uses steel for its screening products because it is stronger and more durable than competing products such as aluminium and timber. As well, screens are available in the full range of COLORBOND® steel colours.

Superior Steel Screens' product range includes diamond and square lattice, slatting in widths ranging from 28mm MiniSlatting® to 55mm MaxiSlat®, shade structures, fences, louvres and awnings.

If a designer-look fence is required, then Superior Steel Screens can offer fencing and gate louvers in several styles to meet a customer's ventilation, shading, décor, security or residential requirements. All work is done at the Brisbane warehouse before being delivered to distributors and franchisees.

"Among our most popular products are our window screens," Mrs Turnour said.

"Houses today are being built closer to each other, and people want to maintain privacy. Some councils now have regulations in place to enforce privacy screening."

Superior Steel Screens will be releasing additional screening products made from COLORBOND® steel in mid-2007.

The company is a member of the STEEL BY™ Brand Partnership Program.

"We joined the program to gain national recognition for the quality of our products, and to inspire our franchisees with the small business success stories we read in BlueScope Steel's *Steel Edge* and *STEEL BY* magazines," Mrs Turnour said.

Superior Steel Screens operates with only one distributor per city, and is looking for four or five more franchisees in Wollongong, Cairns, Mackay, Port Macquarie and Bathurst.

For more information contact:
Superior Steel Screens,
Ph. 1300 766 799,
www.ssscreens.com.au



1800 800 789

This number is for callers within Australia only. Callers in other countries should refer to our web site for the contact number of their nearest BlueScope Steel Limited office.
www.bluescopesteel.com

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Business booming for Ritek® panels

Business is booming for Queensland-based Ritek – Building Solutions, with inquiries now coming from as far afield as Western Australia.

Established in 1983, the company is now providing and installing 40,000 to 50,000 square metres of its patented Ritek® Custom Roof Panel product every year.

Ritek's General Manager, Sales and Marketing Paul Moloney said the company – which also has operations in New South Wales, Victoria and New Zealand – has been involved in as many as 500 projects throughout Australia during the last 12 months.

"Given the strength of demand for our roofing panel, we're currently looking to establish a manufacturing facility in New South Wales," he said.

About 70 per cent of business comes from residential projects, with the balance being industrial and commercial work.

The Ritek® Custom Roof Panel, with a Group 1 fire rating, also has thermal ratings up to R3.0, making it ideal for tropical and outback



Group 1 fire rating.

applications. The panel's inherent strength also makes it ideal for use in cyclone-prone areas.

The panel is fabricated from sheets of COLORBOND® steel in LYSAGHT CUSTOM ORB® profile, which sandwich specially profiled sheets of expanded polystyrene (EPS). This method of construction, coupled with the inherent strength of the LYSAGHT CUSTOM

ORB® profile, means spans can be up to eight metres long.

Panel lengths of up to 14 metres can be achieved, and the product can be lapped to achieve even longer panel lengths.

Ritek® Custom Roof Panels also utilise COLORBOND® Stainless, COLORBOND® Ultra and COLORBOND® Metallic steels.

For more information contact:
Ritek-Building Solutions,
Ph. (07) 5472 2500,
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www.bluescopesteel.com