

01. Witch Wood

Witchcraft

A spectacular new 'grand design' on the outskirts of Peebles fuses cutting-edge design with traditional construction techniques for a home that's as unique as it is beautiful writes Lynn Stewart.



Sometimes, when it comes to looking for your perfect home, you realise that you have to build your own dream if you want to get it just right. This was the case for Marcus and Sally, the owners of an exciting new property in Peebles, who were in the market for a new home when they found there was nothing suitable for sale.

When they spotted an acre of land for sale on the edge of Peebles, they decided to build their own dream home, enlisting the help of architecture firm **Low Carbon Studio** to make that dream a reality.

Low Carbon Studio architects and designers are owned by Colin Campbell. Based in East Lothian and Edinburgh, they offer sustainable design solutions, support and advice to individual home owners and large organisations.

Their work is approached with sustainability in mind and they have experience in extending and altering existing houses and designing new build houses including oak frame structures. For this project, the owner asked Low Carbon Studios for a home which

would blend into the woodland plot, one which would use interesting materials in innovative ways and offer a warm and welcoming atmosphere.

The garden, they said, was to be an extension of the house, so that there would be a *seamless feel between indoors and outdoors* and so that it would blend into the beautiful surrounding landscape without the unnecessary removal of mature trees. The resulting design is extraordinary; a truly contemporary and bespoke home with great design and craftsmanship at its heart.

The project was very much a team effort. Built by **T Graham & Sons**, timber was supplied by **Russwood** while **McKay & Partners** were the engineers. **McGowan Miller Partnership** were the chartered surveyors. Based in Dumfries, MMP specialise in quantity surveying, building surveying, CDM coordination and project management. They work all over the south and central belt of Scotland as well as northern England.



01. Witch Wood



At **Witch Wood**, in basic terms, MMP were responsible for all financial and contractual issues relative to the project. They ensured that the owners received sound advice at the feasibility stage on likely costs, provided unambiguous tender documents, valued the works and agreed final costs with the contractor.

The exposed green oak structural frame expresses traditional construction techniques and demonstrates how well they work in harmony with contemporary design and detailing. It was created by **Alba Green Oak Frames**, which is run by **Luke Mallet** and **Jack MacGregor**.

The duo build frames for all manner of projects, from glazed extensions, sun rooms and conservatories to oak-framed bridges, treehouses, garages and classrooms. They even built a medieval long-house for the **Clan Ranald Trust**. While they work mostly with green oak from sustainably managed sources in the UK, they also use locally-sourced Douglas Fir and Larch. Their focus is on sustainability and maintaining the use of traditional building techniques.

The ground floor of the main house contains the living room, dining area and kitchen and is open plan with an exposed oak frame, oak stair and log burning stove. The double height space over the dining room with suspended lighting adds to the feeling of open space.

There are lots of windows on the south side of the house to give views of the trees and landscape beyond and French doors in the dining area lead out onto a south facing timber deck/balcony. There is also an external fire for summer

evening entertaining. On the first floor there is a space over the entrance with a bridge linking the bedrooms, bathroom and the open plan living/family area.

A particularly interesting element of the build is the **'tree house'** which is the private part of the house and contains the owners' bedroom and study. It is raised on oak stilts, increasing the feeling of living in the woodland. The tree house also has a private balcony, stair and shower.

The house is designed and detailed to be a low energy home as per the owners' wishes. It is positioned so that the main roof pitch faces south to allow the future installation of solar panels and the tree house sits on stilts to reduce the building footprint. The heating and hot water system is powered by an air source heat pump linked to an under floor heating system while the highly insulated walls, roof and floors reduce heat loss.

Passive solar design with large windows facing south and high levels of natural light and natural ventilation help to maximise free energy and the north elevation has small windows to reduce heat loss. All the materials used are natural, recyclable and sourced locally wherever possible. The tree house and dormer roofs have cedar shingles and the house façade is mostly larch boarding. Vertical larch boarding on the tree house and horizontal boarding on the main house help to differentiate the forms and uses.

All in all, it is a truly spectacular and individual piece of contemporary architecture. It respects the beauty of the surrounding landscape while introducing a beauty all of its own via great design and true craftsmanship.

02. Denerigg

New meets Old

How do you create a home extension with its own distinct identity which utilises new techniques while complementing the existing property? Just ask **Low Carbon Studio** writes Lynn Stewart



When the owners of Denerigg, an innovative new property in West Saltoun, described their dream home to architects **LOW CARBON STUDIO**, their requirements were simple and holistic. They wanted a thoughtful, contemporary house with interesting spaces and innovative use of materials, one that fitted into the existing garden and was energy efficient. Above all, however, they wanted a welcoming family home, and that's exactly what they got.

Originally a farming community, West Saltoun has just 20 houses and is a cosy, intimate village. Built in the 1960s, Denerigg was an existing Dorrans kit house which Low Carbon Studio brought into the 21st century with a **crisp, contemporary, eco-friendly** design that sits comfortably in the natural landscape.

It's a design that complements the original property, working with it while having an identity all of its own. It's distinct and modern, but it doesn't jar, nestling comfortably against the older half of the house.

The existing property needed a lot of work to bring it up-to-date. The windows were single-glazed with retro fitted secondary glazing and elements of the existing house had little or no insulation. An original 1960s kitchen needed to be upgraded to make it a good modern family kitchen.

A large, well-kept garden left plenty of room for a big extension and that's exactly what the family opted for. The ambitious extension added nearly 1000 ft² to the property, opening it up to create a bright, light-filled space that makes the most of its surroundings.

The new design layout links a new **Douglas fir-framed structure** into the old house to make an open-plan family room and kitchen linking to the deck and garden beyond. The family area is a double-height space with lots of glazing giving views to the garden and over the fields. **Alba Green Oak Frames** were utilised in the large, open-plan living space, with beams left exposed to add texture and warmth.



02. Denerigg

“The house is designed and detailed to be a low-energy property.”

The new extension is on the south of the existing house and the double-pitched roof form matches the existing house profile. On the first floor of the extension there is a studio space which can be used as an en-suite bedroom, linking into the double height open plan family area.

The house is designed and detailed to be a low-energy property. It is positioned so that the extension faces south to maximise solar gain. The heating and hot water system is powered by an air-source heat pump linked to an under floor heating system.

The highly-insulated walls, roof and floors reduce heat loss while passive solar design with large windows facing south and high levels of natural light and ventilation help to maximise free energy. Furthermore, the concrete floor acts as a heat store and evens out the temperature of the house and a sustainable drainage system leads to a soak away.

Continuing with the eco-friendly theme, all the materials used are **natural, recyclable and sourced locally** where possible. The extension roof has **cedar shingles** and the extension façade is **rough sawn larch boarding**.

It's impressive stuff, particularly for a home in Scotland which needs to be kept cosy for much of the year. In fact, with no mains gas available, the only source of energy in the house is electricity, which powers everything including the heating and hot water via the heat pump.

“Green” is a word that's bounced around too much these days, but Denerigg truly is a green grand design. The owners wanted an extension which fitted their family's needs while sitting lightly in the surrounding landscape and leaving a minimal carbon footprint.

They wanted a sleek, contemporary design which would work seamlessly with a home that was built 50 years ago. And they wanted a home that would allow them to enjoy the beautiful surrounding East Lothian countryside to the fullest.





Upgrading and extension to existing whin stone cottage near Gattonside, Scottish Borders. The ground slopes down to the Blake Burn and the new oak frame extension with larch weather boarding and triple glazed windows, deck and upper balcony are supported on oak stilts.

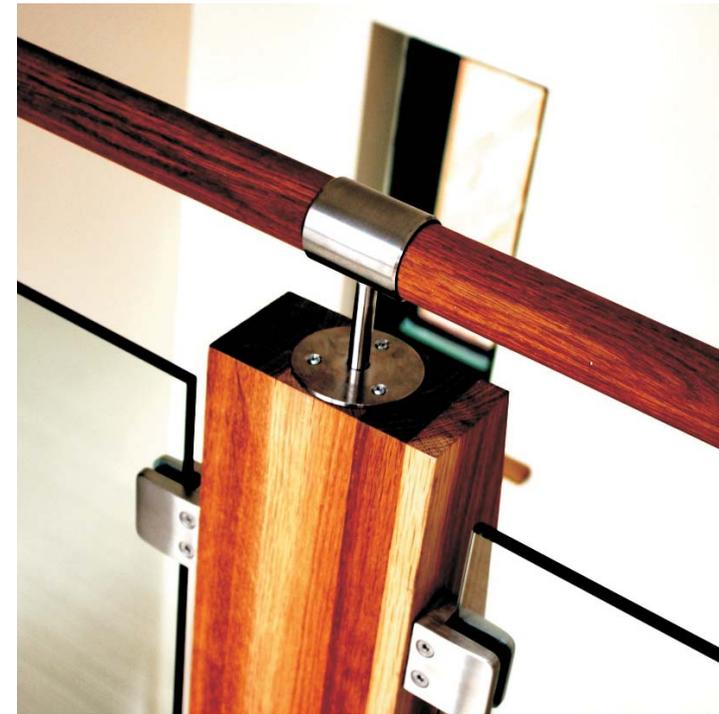
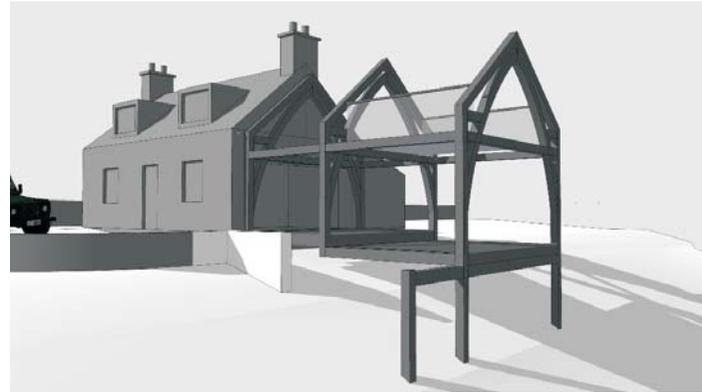
03. Gattonside



Planning approval was granted in June 2013 and building work is expected to commence in Sept 2013, the oak frame is fabricated off site first.

The main elevation and deck faces south to take advantage of and maximise the natural day light. The deck and balcony give fantastic views over the Blakes Burn below and the mature woodland that surrounds the house.

The larch external boarding will mature to a silver grey colour to complement the whin stone cottage.



The house is designed to have a low carbon foot print. the walls, roof and floors are super insulated to reduce heat loss and the materials will be local and re-cyclable where possible.

The new extension provides space that could be used as a home office or studio to reduce travelling. The internal finishes will be timber and the stairs, kitchen fittings and flooring will be recycled. The new contemporary extension sits well next to the existing cottage and it will be a great place to live .

