NATURAL BUILDING STUDIO

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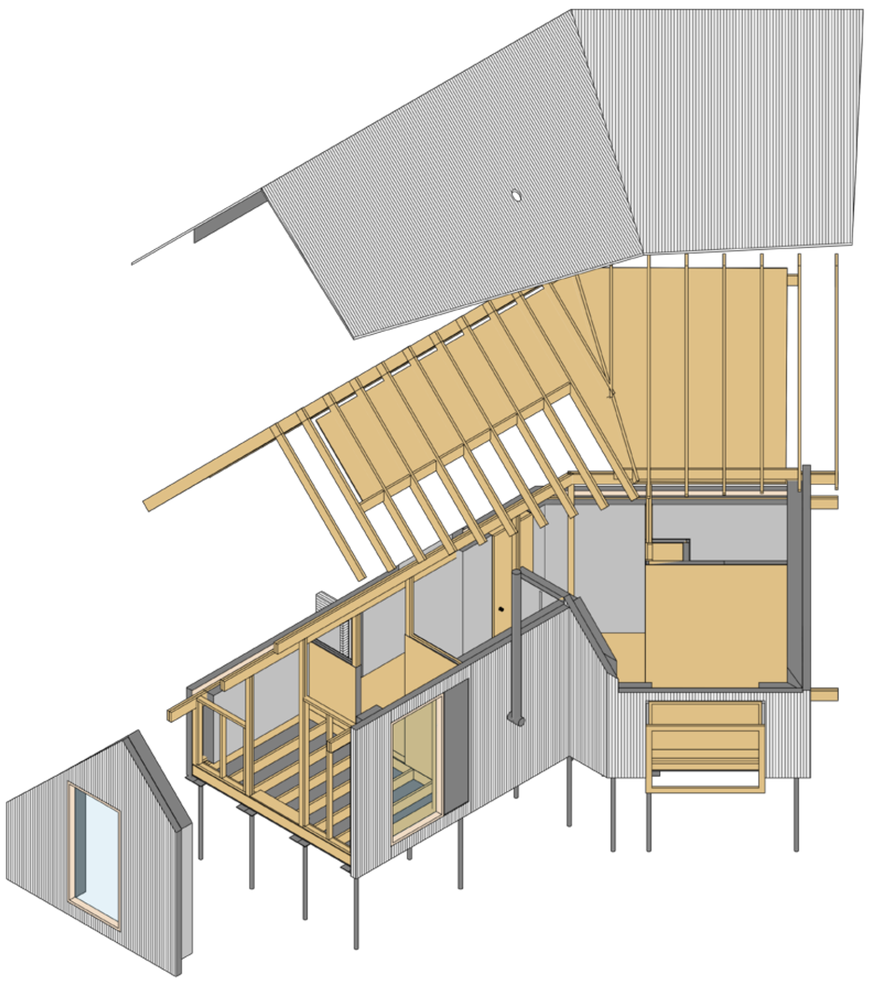

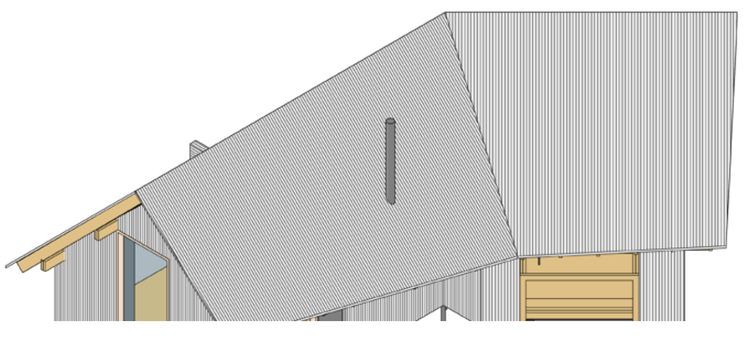

Low impact community workshop - 'Tiggins Rewilding Barn'

Design company name: Natural Building Studio
Build company name: Natural Building Studio
Project location: Suffolk
Project completion date: Ongoing
Budget: £30,000 (self-build, excluding labour)

Project brief

Before starting the Tiggins Barn project, we asked ourselves four key questions:
1. How do we make the build near-net-zero?
2. How do we touch lightly on the landscape?
3. How can we use locally sourced materials?
4. How do we make a building that creates additional habitat for wildlife?

We started by raising the building off the ground on micro-screw foundations. These have many benefits. They're low cost, quick to install, eliminate the need for carbon-intensive concrete, and provide flood resilience. They also provided a dry and sheltered habitat below the building, contributing further to the local ecosystem. At the end of the building's life, these foundations can easily be removed and reused or recycled.

The structure itself is made up of a simple softwood timber frame. The eaves overhang the facade, so there is shade in the summer, as well as ledges and nesting spots for small birds. The frame is in-filled with a hemp-lime mix, which is a UK-sourced net-zero-carbon building material. It provides insulation to keep the building warm in winter, and high thermal mass to keep the building cool in summer. The good news is, it's also biodegradable at the end of its life.

The walls are clad in UK-grown larch. We wanted to use locally sourced materials to reduce the carbon footprint of distribution and delivery. So, we opted for durable British larch boards. We kept the costs down by using low grade boards. They have a few extra knots, but we love the texture and pattern this adds to the facade.
We charred the boards on site using a traditional Japanese method, Shou Sugi Ban. It's a natural way to preserve wood. The charred top-most layer increases water resistance, pest resistance, and fire resistance. It creates a beautiful texture and rich blackness that references the black-tarred timber barns found all over Suffolk.
Although the charring process emits a small amount of carbon at the beginning of the material's life, it's a natural preservative method. Which means the timber can easily be recycled or safely decomposed at the end of the building's life.

We want 'sustainability' to happen in the background, while the focus stays on the things that bring joy to our built environment: beauty, space, light, form, art, nature, culture, life. The trick is to find intelligent ways to deliver net-zero-carbon buildings in an economical way.
Use reasonably priced materials and put them together in a way that is easy to build. Do that creatively, and you can then focus on the bits that bring joy.

Find out more: www.naturalbuildingstudio.com

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