

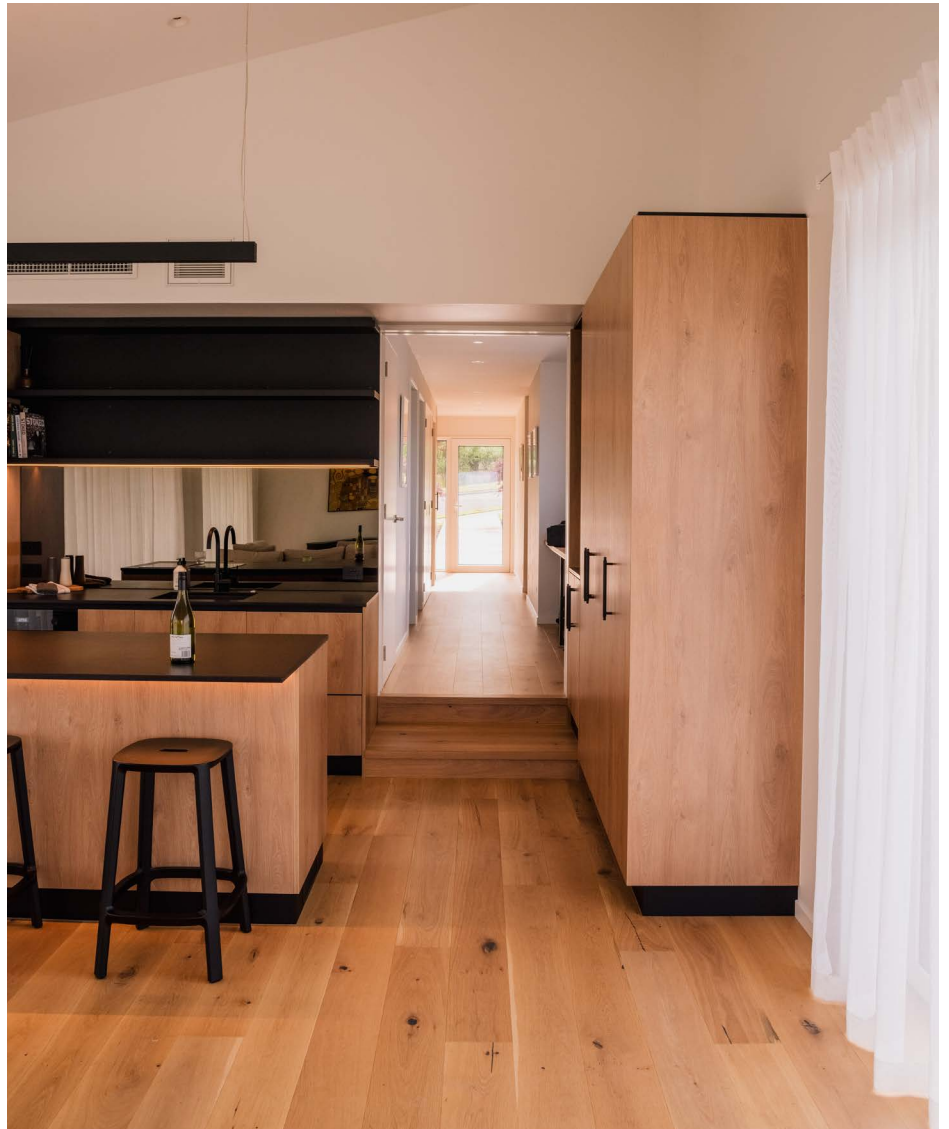
# Discover an eHaus Euro





## The story of Tania and Hayden

During a family holiday, Tania and Hayden Monk discovered a section in Kinloch with stunning views of Lake Taupo and the Kinloch golf course and knew it was the perfect spot for their dream holiday home. They had never built before but they were up for a new challenge. After researching passive house design, then attending an eHaus webinar, Tania and Hayden were keen to learn more. They met with Mat Staples, from eHaus Taupo, visited a local eHaus under construction, and were quickly sold on the eHaus concept.



## Introducing The Jetty House

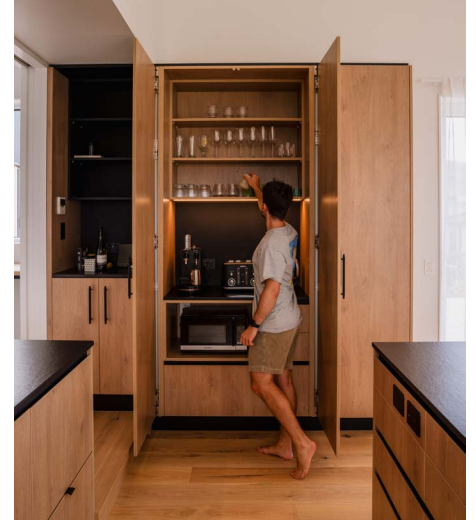
In the hills overlooking Kinloch, a jetty-like structure extends down towards the lake. The Jetty House is a calm, unobtrusive form reflecting the surrounding low-lying hills in both shape and in its natural materiality.

The holiday house is approached via a bridge-like entry deck, which is continued inside through the length of the house to the split-level living space. A collection of bedrooms is nestled at the top of the sloping site, with the living spaces - both inside and outside - extending down the hill, maximising views over Lake Taupo and the Kinloch golf course. The natural materials of the exterior are continued inside to create a warm and inviting retreat from the busy city life.

The Jetty House meets the eHaus Euro performance standard, delivering a warm, healthy, energy-efficient home.

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"We were really impressed with the substantial quality of the building, and the passion of Mat and his team. Not to mention the incredibly tidy building site!"



## The design

Having spent many hours on the section coming up with ideas, they were clear on what they wanted: a 3-bedroom, 2-bathroom home that could comfortably sleep 8–10 people with a large communal area.

A high-performing home that minimised the impact on the environment was a high priority for Tania and Hayden. Given the altitude and tough climate in Kinloch (hot in summer and cold in winter), they also wanted a home that was warm when they arrived on a chilly winter evening but wouldn't overheat in summer. Maximizing the views was paramount and was a design challenge due to the lake view being to the west (potentially making the house too hot in summer).

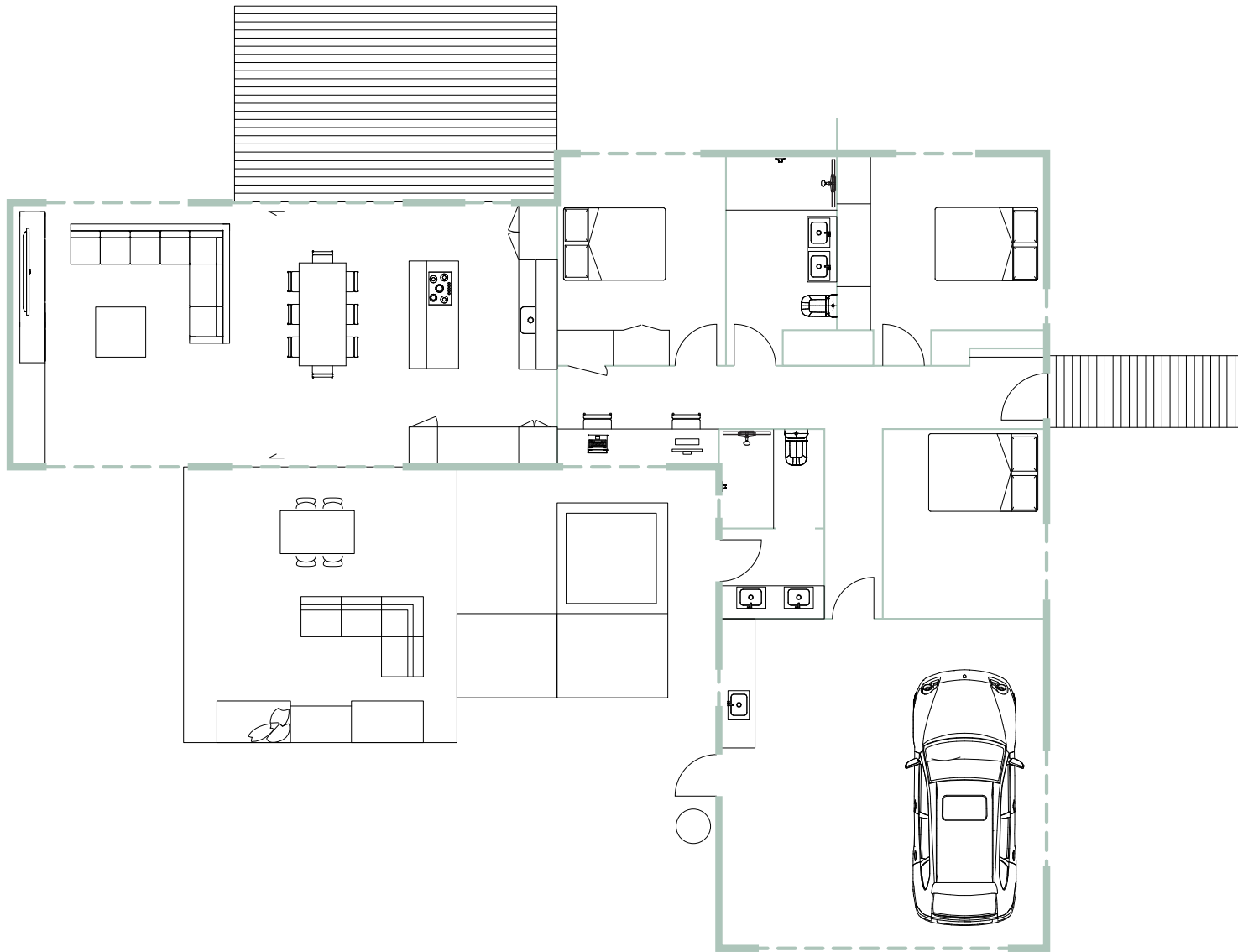
First Light Studio, from the designHaus, were selected to create and craft a bespoke home, unique for Tania and Hayden. First Light Studio and eHaus Taupo worked together to provide information on products, performance, and associated costs so that the couple could make informed decisions that fitted their circumstances and needs.

With the final design there is absolutely no wasted space, with all 178sqm perfectly utilised. Every detail is well thought out, like the direct access from the spa to the bathroom meaning no wet feet traipsing through the house.

With this location, orientation and outlook, the go-to design for many other architects would be west-facing with large windows. At eHaus, we design and construct homes with the region and the land that it sits on in mind. Part of the eHaus process is thermal modelling each design to measure energy efficiency and comfort, guaranteeing levels of performance whilst still on the plans. For this home the model showed that too many westerly windows would result in 8.2% overheating (8.2% of the year above 25 degrees) and an additional 8% of heating energy would be required in winter.

The solution to capture the view while maintaining performance, was a westerly picture window in the living area in line with the front door, so fabulous view is visible from many areas: the entrance, hallway and living space.





"We really enjoyed the design process. First Light took time to understand what we were looking for and came up with two fantastic concept designs that met our brief, as well as challenged us on our ideas. After deciding on the "Jetty House" concept, there were a few refinements, but the result is still very close to the initial concept, which is testament to the First Light team taking the time to understand our requirements."



## Building process and materials

Building in 2021 was a challenge – there were Covid lockdowns, scarce building supplies and regular price increases as NZ adjusted to a post-covid world. The biggest challenge was securing building materials, especially when several of Tania and Hayden's first choices were no longer available. eHaus Taupo worked with Tania and Hayden to mitigate these issues where possible, and ordered some items early to ensure supply issues didn't impact the build schedule.

Window joinery: uPVC manufactured in Christchurch by APL. uPVC is acknowledged throughout the world to be an energy efficient and long-lasting solution.

Glazing: High-performance double-glazed units with lowE, Argon and an energy efficient edge spacer.

Insulation: Double layer of insulation delivers a minimum actual performance of R4.2. It uses two-overlapping layers of fibreglass insulation to achieve this of R1.5 and R4.1.

Ventilation: Zehnder heat recovery unit with Wi-Fi technology. This ensures filtered fresh, dry air 24/7, eliminating condensation and protecting the fabric of the building against mould and damp.

"We had a few supplies delivered that did not meet quality expectations. Mat and his team never accepted inferior products and were always able to come up with replacements or alternative solutions so quality was never compromised."

## THE RESULT

"A warm, dry, healthy home where you can get a great night's sleep. Who can ask for more?"

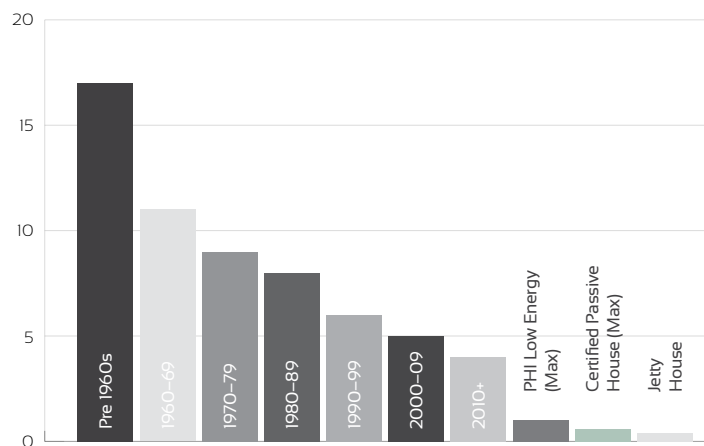


Tania and Hayden are thrilled with the result of their holiday home. The Jetty House is used as a short-term rental property when the family aren't using it. One guest who really feels the cold said it was the first time in a long while they had not woken up from the cold.

"The finished build is to an excellent standard. High attention to detail was shown from the architectural and build teams, as well as from the sub-contractors. Visitors have commented on the luxury feel of the home – especially the kitchen and bathrooms which is testament to the craftsmanship shown."

One of the many checks eHaus performs during the construction is a Blower Door test to measure airtightness of the homes. Airtightness is vital to creating healthy, draft free and energy efficient buildings. The more times air changes within a house, the more inefficient it is to heat, and on the flip side, the less air changes, the better the house is performing. The Jetty House has an impressive airtightness result of 0.38 Air change per hour when pressurised at 50 pascals.

The below graph shows how air tight the Jetty House is compared to certified Passive House criteria and older homes.



\*Data based on averages from BRANZ 2020 research.



Reducing our Carbon is high on the agenda, and rightly so. Considering the global climate crisis that we face, it's important to know how the choices that we make affect our environment – and the homes that we live in should be no exception. Because of the way every eHaus is designed and constructed, we know and can measure the amount of carbon through energy efficiency that we are saving per year.

In the first 12 months since its completion, the Jetty House has already spared the planet from an estimated 2914 kilograms of carbon emissions from heating alone. And the best part? This number will only keep climbing with each passing month throughout its entire lifespan.



Mat Staples – eHaus Taupo

## Teams

Our eHaus team is made up of some of the country's best builders, architects and designers who are redefining the way kiwis live. Our team of professionals worked together to see The Jetty House come to reality. A special thanks to those involved:

First Light Studio - Architects  
Maria Rei, eHaus – Thermal modelling  
5Merchants – Airtightness testing  
eHaus Taupo – Builders



## Conclusion

Despite Covid lockdowns, material shortages, and site orientation challenges, the eHaus team designed and delivered an exceptional home that the owners and guests are incredibly happy with. The high performance of the holiday home means Tania and Hayden can come and go, knowing it will always be comfortable, dry, and healthy, whatever time or season they arrive. With continued carbon savings through energy-efficiency, The Jetty House reduces the impact on the environment, ticking all the right boxes for Tania, Hayden, and their family.

We understand many readers will be interested to know the pricing of this eHaus project. For privacy reasons, please contact eHaus to discuss pricing expectations.

## eHaus Euro, the premium performance standard.

The eHaus Euro is the premium standard when it comes to performance, offering unprecedented comfort, health and energy efficiency benefits.

The eHaus Euro is designed and constructed to meet the rigorous International Passive House Institute performance standards for full certification – the world's highest standard in energy efficiency. The International Passive House Institute have five classes for verification: Classic, Plus, Premium, PHI Low Energy and PHI Enerphit, which can all be met in the eHaus Euro.

Every Euro is energy modelled using the Passive House Planning Package (PHPP) and built using the six Passive House Principles.

The Euro is designed to maintain a temperature range of 20–25°C, using up to 30kWh per m<sup>2</sup> for an entire year. Comparatively, a typical NZ standard code build home would require at least 120kWh per m<sup>2</sup> to maintain a similar temperature range for a year.

The eHaus Euro is completely customisable in its looks while keeping its promises in its performance.



Architecture by archetype



## We are designers and builders of New Zealand's healthiest, comfiest, highest performing homes.

At eHaus, we live like efficiency is our point, and intelligent construction our norm. We live like our environment is a privilege and protecting it is our responsibility. We live like New Zealanders are our passion, and ingenuity is our response.

Our eHaus team is made up of some of the country's best Passive House builders, architects and designers who are redefining the way kiwis live. Our central office is located in Whanganui, New Zealand, with regional build teams and designHaus teams throughout the North and South Island. Our team of professionals work together to see your dream home come to reality.

eHaus is recognised as award winning and New Zealand leaders in high performance design and construction.



## Start your eHaus journey today.

We believe all great projects start with a great conversation. Get in touch with us to get your eHaus project started with a free, no obligation consultation.

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