

# ARÊTE

ARCHITECTS

New Zealand Green Building Council Housing Summit 2024

*"The characteristics of the world most worth knowing is it's natural beauty... the more we see of it the more of us it sees."*

Younghusband



**Sam Brown**

Director/Architect/Homestar Assessor

Arête Architects believe in blending the planes of architecture and environment; merging the two to achieve architectural excellence.

An architectural rendering of a modern kitchen and dining area. The walls and ceiling are finished with a light brown corkboard material. A track lighting fixture with four cylindrical lights is mounted on the ceiling. The kitchen features a white countertop with a stainless steel sink and a modern faucet. The dining area has a wooden table and chairs. A person is standing in the background, looking towards a doorway. Large windows on the left side offer a view of an outdoor deck and a large tree. The overall atmosphere is warm and natural.

# THE FIRST ITERATION

## The Restricted Section

Wellington, New Zealand

## **KEY DESIGN CONSIDERATIONS:**

- Established zones of the home for efficient planning
- Reorientation to maximise solar gain
- Raised floor level to ensure resilience in an identified flood area
- Modulation of construction for labour and cost reduction
- Raw and unapologetic material palette but executed to a high standard
- Designed to remove the need for additional consultants





## PROJECT LEARNINGS:

- Important to get clients understanding of the expected finish level early
- Engage with a builder that wants to learn about high performance housing, or is already experienced. Buy in, by all the project team members, is critical
- Proposed efficiencies in labour and materials were realised
- Immediate shading to glazing needed to be better examined



# THE SECOND ITERATION

Tiu Studio  
Lake Hāwea, New Zealand





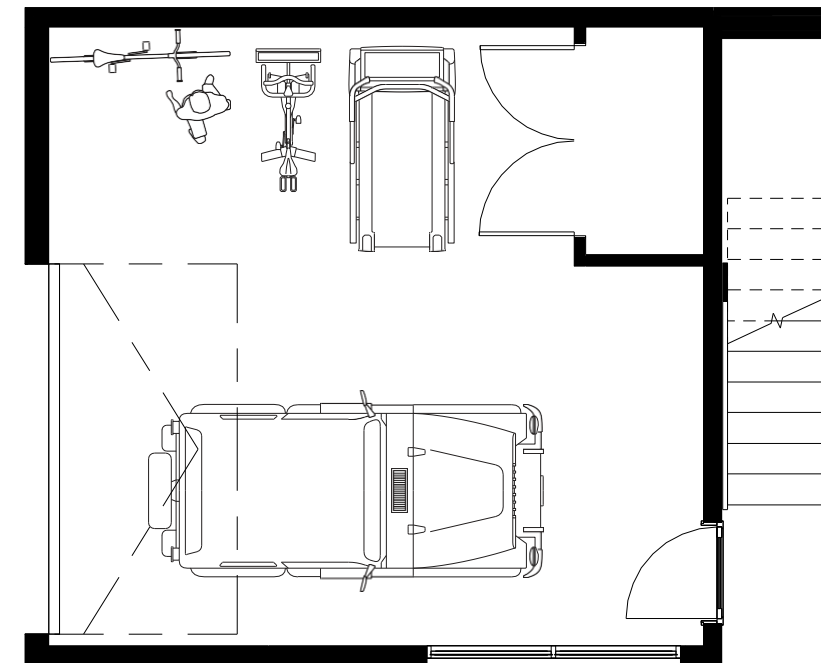
## KEY DESIGN CONSIDERATIONS:

- Future planning for additional structures to be added
- Maximise sweeping views to the west, east and south
- Comfortable living environment year round
- Reduced site waste during construction
- Low maintenance, high performing and recycled/recyclable materials, fitting and fixtures.
- Natural material palette to better integrate into the local landscape.

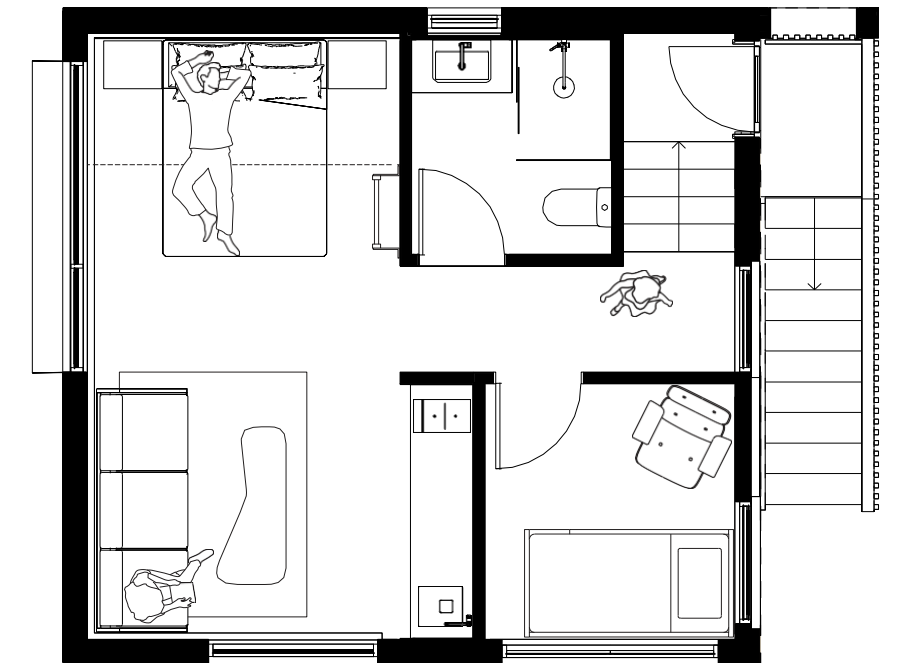


## PROJECT LEARNINGS:

- Better education around what we were looking to achieve was needed in regards to consultants, contractors and sub-trades
- Creative use of materials allows for an intriguing and dynamic residential environment
- Small scale does not always equal efficiency, but if you are clever it can
- The home is only part of the puzzle, the land, planting, context and culture all play a big part in the success of the project.



garage



studio

A modern two-story building under construction in Queenstown, New Zealand. The building features a mix of materials: the left side is clad in vertical wood slats, and the right side is clad in red corrugated metal. The building is elevated on a concrete foundation with numerous wooden posts. Several windows are visible, some with dark frames. In the foreground, there is a concrete slab and stacks of lumber. The sky is blue with scattered white clouds.

# THE THIRD/FOURTH ITERATION

The Village  
Queenstown, New Zealand





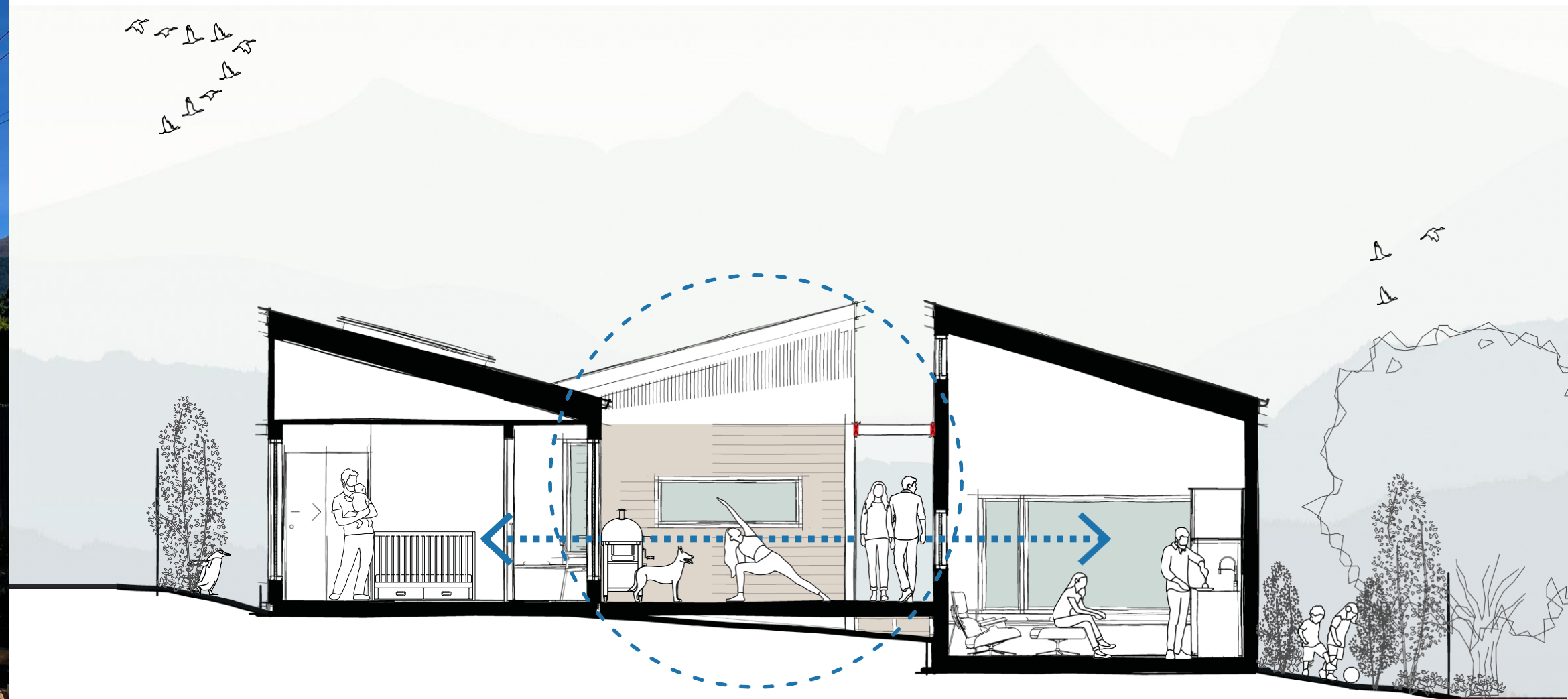
## KEY DESIGN CONSIDERATIONS:

- Intergenerational living suitable for now and into the future
- Communal spaces and amenities shared leaning into the village concept
- Reducing the bulk of development with four distinct forms, more conducive to the colonial vernacular of the area
- As close to zero waste as possible including the demolition stages
- Comfortable, hard wearing and low maintenance
- Little reliance on public services with solar energy and rain water harvesting considered.



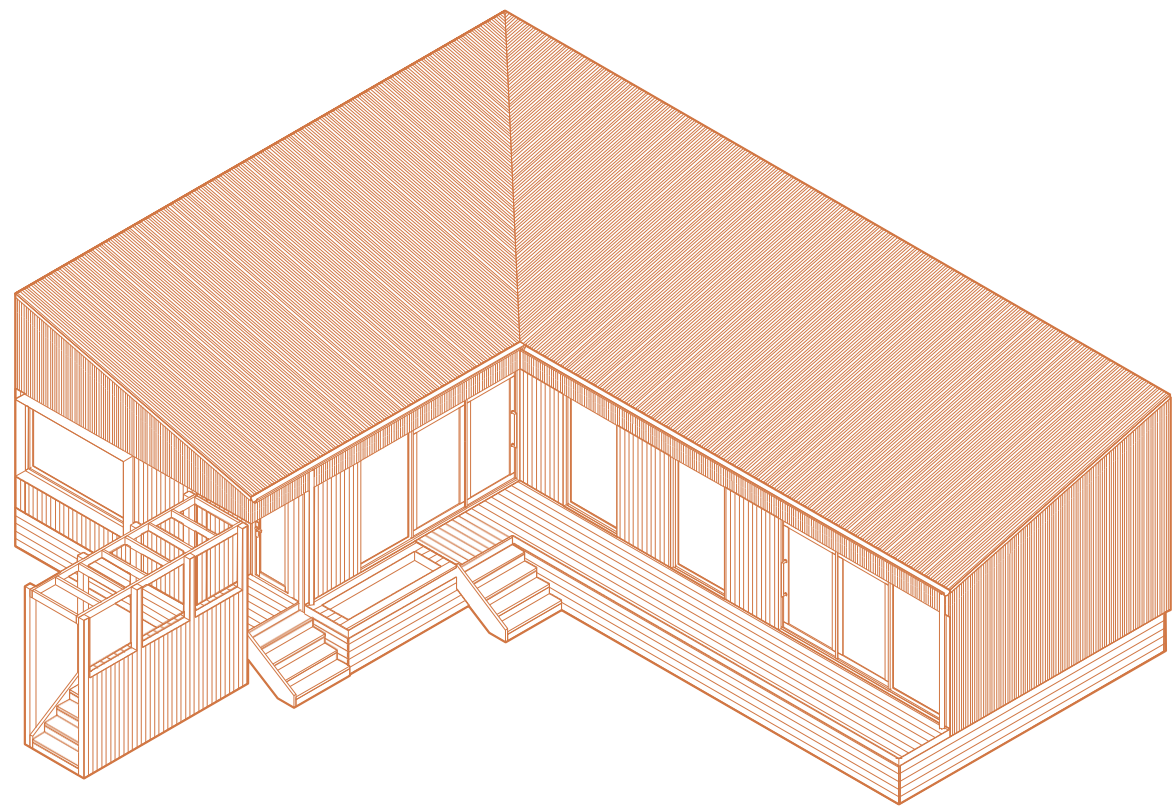
## PROJECT LEARNINGS:

- Working with an experienced high performance builder added considerable value to the project
- Efficient use of the site resulted in a greater level of density while still appealing to the classic kiwi desire to own a standalone home
- Staged construction resulted in no displacement for the owners, critical in a difficult rental market
- Shared communal spaces and amenities allowed for greater social engagement and efficient use of space

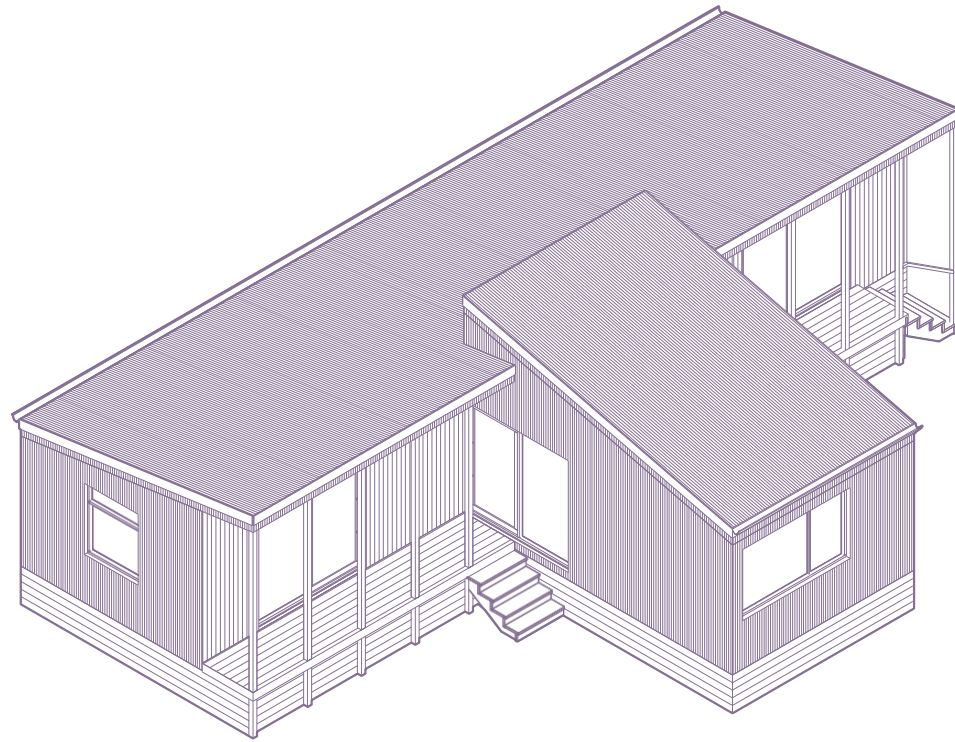




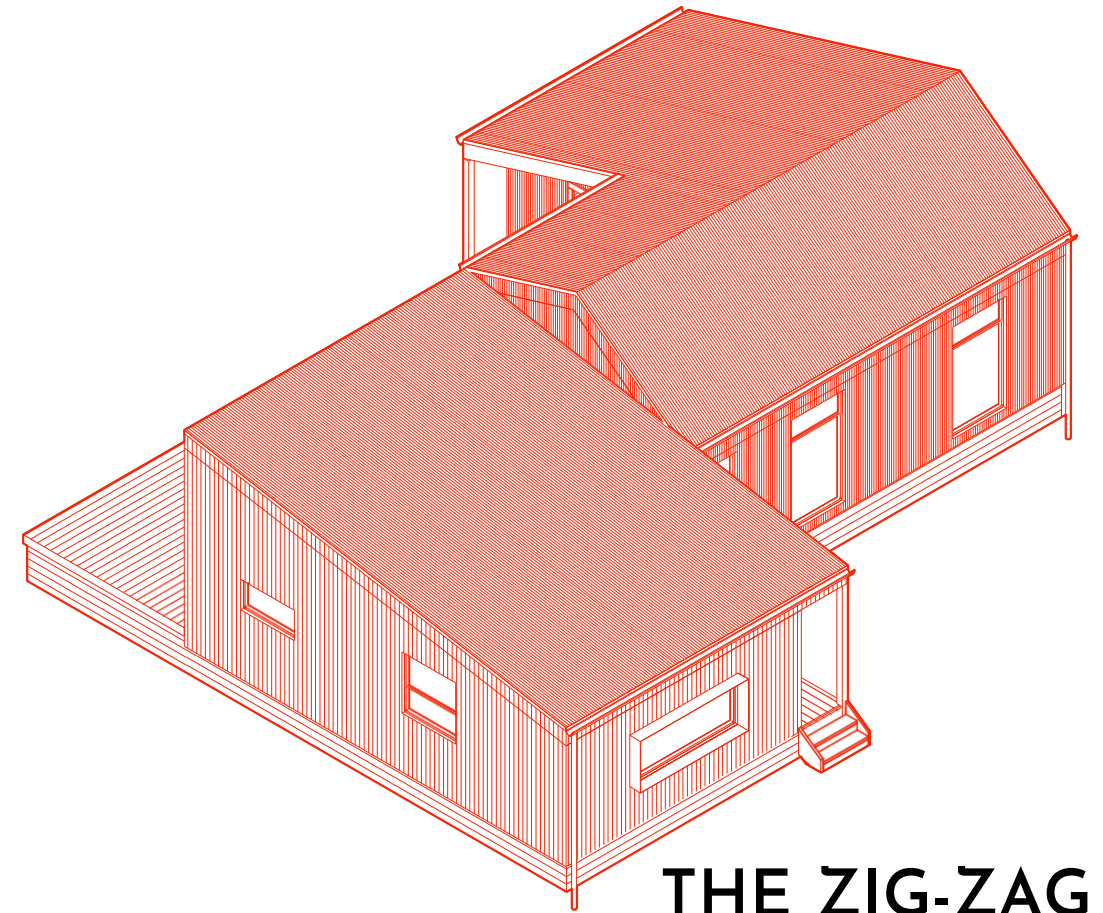
**THE PRODUCT**  
SLPtris Housing  
New Zealand



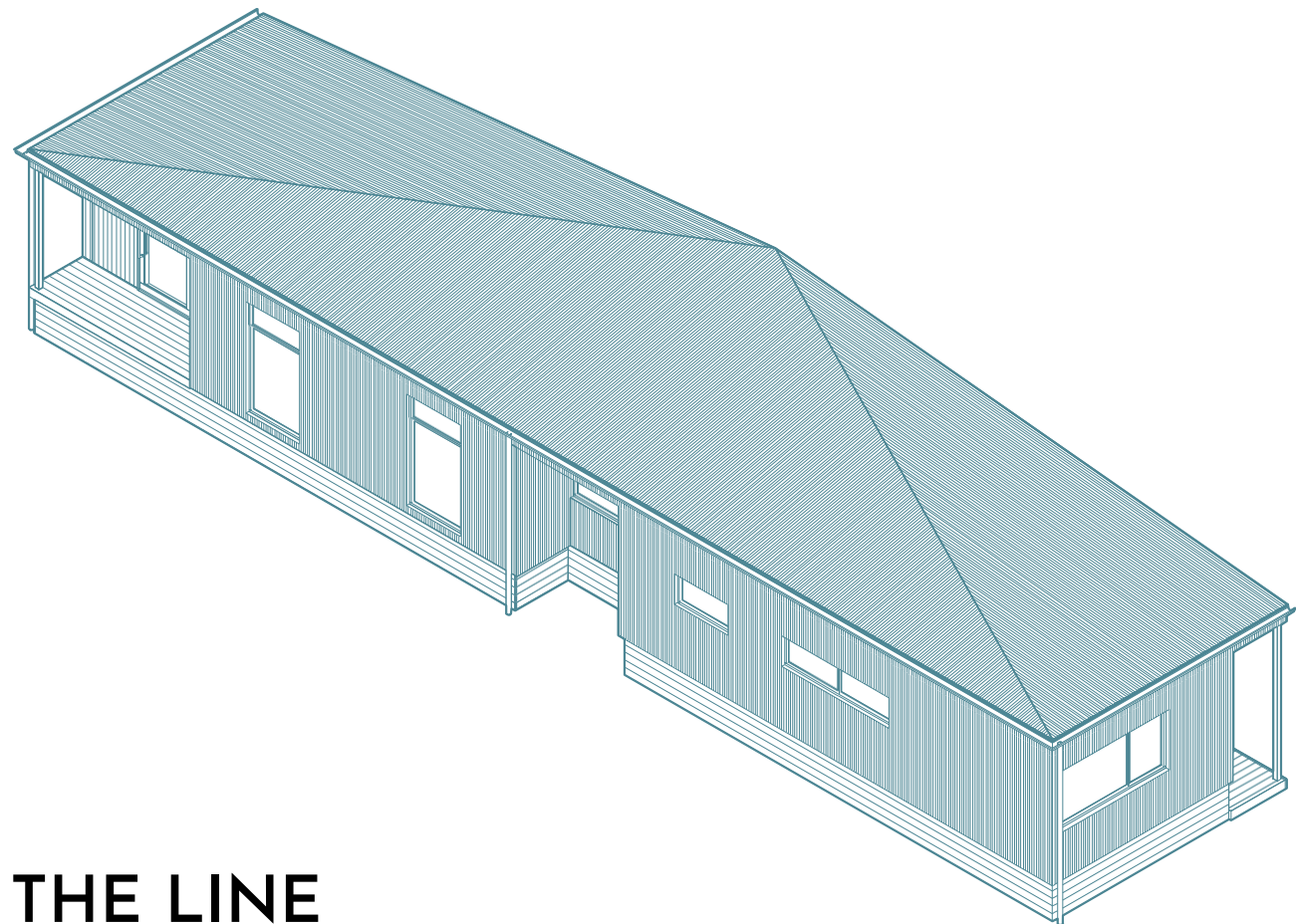
**THE ELLE**



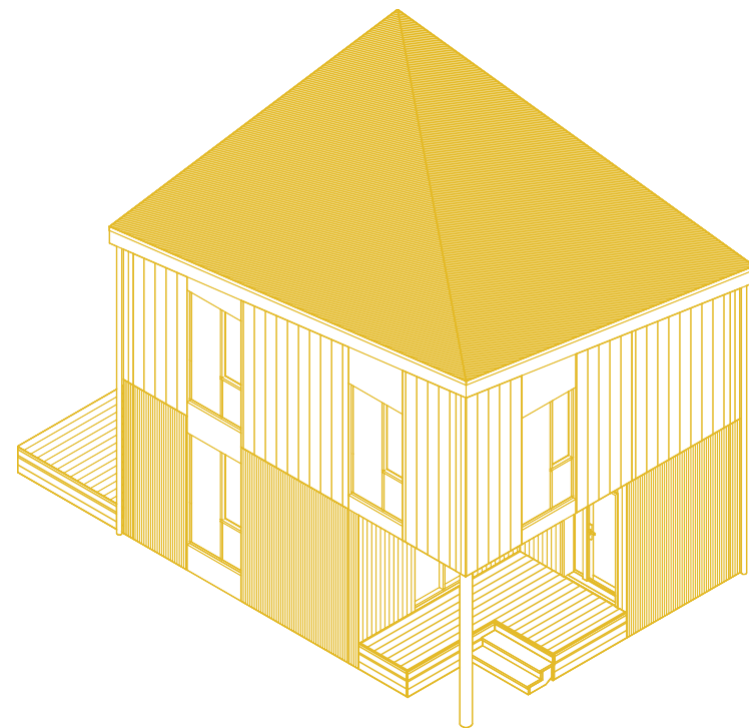
**THE TEE**



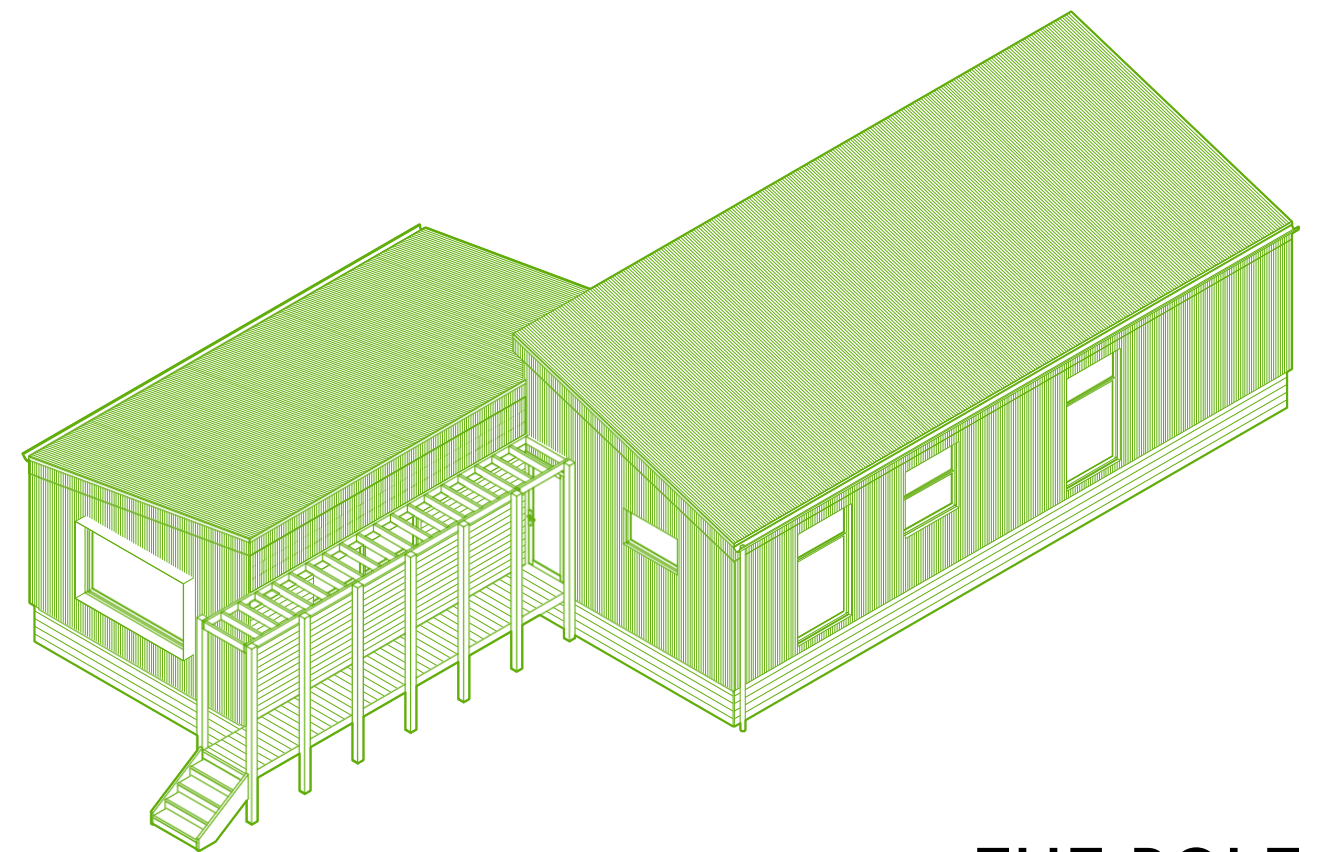
**THE ZIG-ZAG**



**THE LINE**



**THE CUBE**



**THE BOLT**



## KEY ASPECTS OF SIP<sup>tris</sup> HOUSING:

- Cost-effective and modular construction: This results in fast erection times and minimal waste.
- Homestar rated: Held up to a recognised certification system.
- Climate adaptability and resilience: Designed for all climate zones and orientations.
- Repeatability: Easily replicated across different sites, including flood-prone areas.
- Strong design presence: Combining aesthetic appeal with functionality.
- Efficient space planning: Maximizing small floor areas to reduce the scale of residential housing.
- Quality living environment: Ensuring homes are healthy, warm, dry, and of high quality



THANK YOU

# Sam Stubbs

Simplicity



# A little hui, and lots of doi.

## Progress so far

**159** + **348** + **592** = **1,099**      **\$136m**  
Built and rented    In construction    In development    Total      Invested

- Build on brownfield sites near public transport and amenities.
- 100-250 homes/hectare - making good use of land.
- 150yr design life, 3x Building Code requirement.
- Fly ash substitute for cement to reduce carbon content.
- Solar panels on roofs.
- Rainwater harvesting for landscaping.
- 20% carparks with e-car chargers.
- Bike parks (more than 1/apartment) with e-bike chargers.
- Water saving measures on plumbing fittings.
- Energy efficient aircon units and appliances.
- Good shading to balcony slider units with balcony overhangs.
- Thermally broken glazing units with argon gas and Solux-E glass.
- Design and construction labour costs 1/3 less than industry with resultant transport, energy use reduction.
- Extensive landscaping throughout developments.
- Extremely low maintenance requirements over building life with brick facade, no paint, hence far greener.
- A tree planted per apartment per week.

