

Sanctuary

MODERN GREEN HOMES

ISSUE
58

SMALL CHANGE
SPECIAL

Tiny Tassie treasure; latest eco-concrete options;
making space work harder; urban microforests

When less is more

Homes going small on
size, site and budget,
but big on heart



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Compact and crafted

LOCATION Wanaka, NZ • WORDS Rebecca Gross • PHOTOGRAPHY Simon Devitt



At a glance

- Modest 60m² footprint family home with a mezzanine
- Efficient spatial design with built-in storage
- SIPs construction with low-maintenance cedar shingle cladding
- Passive House elements for great thermal performance

Taking cues from Japanese architecture, Condon Scott Architects crafted a compact small-footprint home in Wanaka, New Zealand, with a tight and considered floor plan and lots of smart storage.

Traditional Japanese architecture is greatly admired for being beautifully crafted and cleverly compact. Having stayed in ski chalets in Japan, the owners of Sugi House in Wanaka, New Zealand, developed an appreciation for the warm, minimalist design and efficient use of space. They engaged Condon Scott Architects for their project, which successfully merges these borrowed ideas with learnings from an earlier CSA project, the 30-square-metre footprint Kirimoko Tiny House (see *Sanctuary 43* for more).

“They wanted what they termed a smarter home,” says architect Barry Condon of the clients. “We kept the floor plate limited to 60 square metres and then used every millimetre of space as smartly as we could. The aim was for a refined, precise and crafted aesthetic.” The house also needed to be energy efficient and thermally comfortable year-round

in Wanaka’s climate, which can range from minus 10 degrees Celsius in winter to 35 degrees in summer. “Our clients understood the importance of investing at the initial stage of the project to achieve a high-performance, low-energy home,” Barry says.

The gabled two-bedroom house is designed to accommodate the family of five, and is a secondary dwelling on the same site as a house owned by the client’s extended family, increasing urban density. The location of the existing house dictated the position and size of the new structure, resulting in a small rectangular footprint on the edge of the block, with a carport between the dwellings for extra privacy. Sugi House’s kitchen and living area are on the ground floor, facing north-west and opening onto a terrace to extend the sense of space. The children’s bunkroom and a bathroom are tucked in behind the kitchen, and the main bedroom, ensuite and a flexible office space/play area occupy a mezzanine level. “The rooms aren’t massive, but they are as large as they need to be,” says Barry. With this tight but considered floor plan, the total floor space is 96 square metres over two levels.

Built using Passive House construction techniques, the house requires only



↑ Cedar shingle cladding gives the small home “a lovely, textural, dappled quality,” says architect Barry Condon. Large glazed openings around the lower level living area create a cantilevered appearance to the upper portion of the gabled form for further visual appeal.

minimal active heating and cooling. Structural insulated panels (SIPs) form the core structure and are taped, sealed and wrapped in a layer of building wrap plus plywood to maximise thermal efficiency and airtightness. Extensive glazing to the living area ensures passive solar gain, with electronically controlled roller blinds to filter the sun in summer. The remaining windows are kept small to maintain the thermal envelope and to ensure privacy for the bedrooms and upper level. A double-height ceiling above the living area enhances the sense of space, and operable skylights purge hot air and bring in natural light from above.

The material palette is warm

and textured, with materials used on multiple surfaces to blur transitions. “The aim was to create beauty through simplicity and to create flow between the exterior and interior,” says Barry. Low-maintenance textured cedar cladding on the exterior walls and roof accentuates the gabled, compact form and imparts the crafted Japanese aesthetic. “The cedar cladding works well on this smaller form. As designers we don’t often get an opportunity to use shingles and they were just perfect for this house,” he goes on.

Plywood is used internally to line the walls and ceilings and for joinery. The warmth and softness of the timber contrasts with the roughness of the

board-marked concrete hearth and chimney, which forms the focal point of the living area. In the bathroom, floor-to-ceiling stone-look tiles create a wet room reminiscent of a Japanese ‘onsen’ bathhouse.

The polished concrete kitchen bench doubles as the dining area. “We used little tricks like this to save space where we could,” Barry says. Other tricks include making the most of every opportunity for built-in storage, with shoe racks, hidden cupboards and under-bed storage. There are drawers within the steps of the stairs and shelving in the mezzanine wall. Flush cabinetry uses every millimetre of space and enhances continuity, and black

fittings and detailing contrast with the timber linings.

The clients currently live in Singapore and the house was built during the pandemic; as New Zealand's borders have been closed, they are yet to enjoy it. For the moment, the home is being rented by a local Wanaka family, who have been loving the well-designed space and beautifully crafted interior. "Living in a cosy space naturally brings our family closer together. The open plan design creates an inviting shared living area that still feels generous in size, and I love the relaxing spaces we can retreat to for quieter moments," says tenant Mel. "The materials have been well considered, and it's efficient and low maintenance. It's an easy and very enjoyable space to come home to." 📍



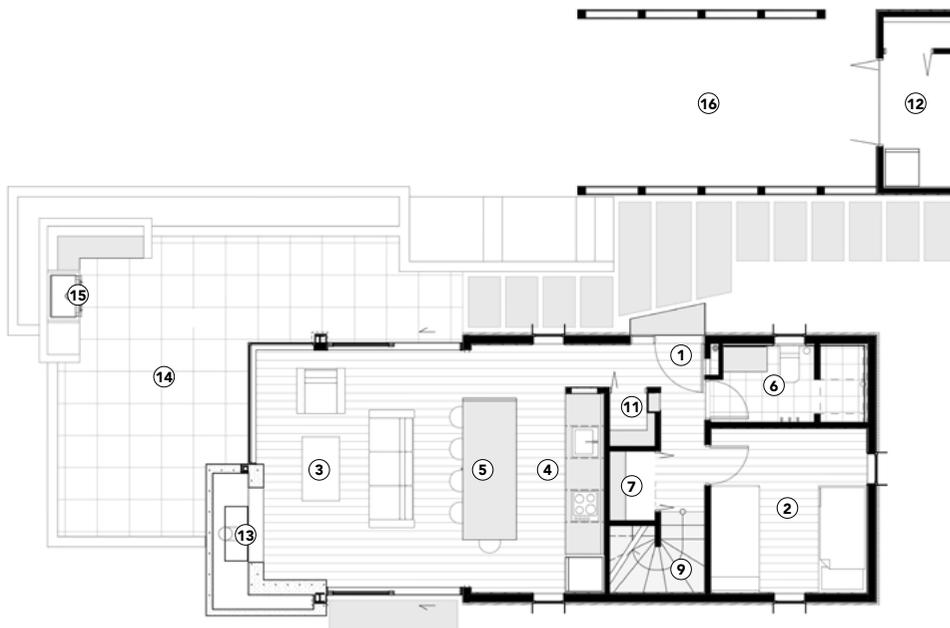
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The interior is lined with pine plywood, and storage is tucked in everywhere - including under the stair treads. A flexible mezzanine area can serve as an office space or play area.

FIRST FLOOR PLAN



GROUND FLOOR PLAN



LEGEND

- ① Entry
- ② Bedroom
- ③ Living
- ④ Kitchen
- ⑤ Dining
- ⑥ Bathroom
- ⑦ Laundry
- ⑧ Office/play area
- ⑨ Stairs
- ⑩ Robe
- ⑪ Pantry
- ⑫ Store
- ⑬ Wood fire
- ⑭ Terrace
- ⑮ BBQ
- ⑯ Carport
- ⑰ Void

HOUSE SPECIFICATIONS

HOT WATER

- Rinnai instantaneous gas hot water system

WATER SAVING

- Water-efficient fixtures and fittings, mostly WELS 4 star

PASSIVE DESIGN, HEATING & COOLING

- House positioned on site and orientated to capture sun, with large glazing to the north
- Well-insulated building envelope with high-performing windows
- Mezzanine level open to below for heat transfer to upstairs
- Skylight windows for passive cooling, stack ventilation and natural lighting
- Electronically controlled sun-filtering interior roller blinds by Mackenzie and Willis

ACTIVE HEATING & COOLING

- Big Ass Fans Haiku ceiling fan to living area
- Airmax reverse-cycle air conditioner
- Stovax Studio 2 wood fire

BUILDING MATERIALS

- Formance 165mm structural insulated panels (SIPs) to walls and roof, made from oriented strand board with an expanded polystyrene (EPS) core (R4.2)
- SIPs were taped and sealed, with Pro Clima building wrap and a layer of plywood to maximise airtightness and thermal efficiency

- Western red cedar shingle cladding supplied by SPS Building, largely salvaged waste from logged areas
- Marchand Chocolat oak flooring (FSC-certified)
- Interior lining and built-in joinery: sustainably grown, untreated NZ plantation pine plywood
- Polished concrete benchtop and board-marked concrete fire surround by Queenstown Concrete Grinding
- Decking: sustainably sourced purple heart hardwood supplied by JSC Timber

WINDOWS & GLAZING

- Thermally broken aluminium-framed double-glazed windows, doors and skylights with low-e glass, supplied by Reids Joinery

LIGHTING

- LED downlights and track lighting supplied by Radcliffe Electrical

PAINTS, FINISHES & FLOOR COVERINGS

- Resene paint to bathrooms
- Cavalier Bremworth Siren Tria carpet to bedrooms (fibre made from 100% recycled synthetics including salvaged fishing nets)

OTHER ESD FEATURES

- Modest size and small footprint for a two-bedroom home
- Second dwelling on a single block
- Induction cooktop

DESIGNER

Condon Scott Architects

BUILDER

Christie Brothers Building

PROJECT TYPE

New build

LOCATION

Wanaka, NZ

COST

NZ\$750,000
(approx AU\$720,000)

SIZE

House 96m²
Land 1,084m²
(shared with primary dwelling)

