

MODERN GREEN HOMES

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Sanctuary

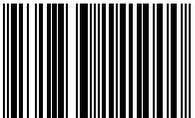
STEP INSIDE

AUSTRALIA'S MOST SUSTAINABLE HOMES



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Sustainable House Day 2018 preview
 Climate-ready designs
 Cradle-to-cradle construction

WIN

a \$5000 Biofilta sustainable garden package

Offer open to Australian residents. Details page 97.

Granny flat upcycle

Tim and Greer's granny flat has been transformed into a warm, light living/dining/kitchen – the new heart of the home – with excellent visual and physical connection to the extensive back yard. South-facing glazing has been reduced in size to improve thermal performance; large sliding doors on the west open onto a jacaranda-shaded deck.



Instead of pushing them over and starting again, this Melbourne couple opted to retain and extensively refurbish their solid brick house and granny flat, integrating them to form a functional, generous family home.





◀ A sub-standard connection between the house and granny flat was rebuilt and slotted under the existing eaves to minimise disruption to the roofline and gutters. It now serves as an extra sitting area. A beautiful barn-style blackbutt door, handmade on site, provides heat zoning.

WORDS Anna Cumming

PHOTOGRAPHY Emma Byrnes

BACK IN 2006, GREER AND TIM'S HOUSE

hunting led them to a classic 1950s cream brick house in Melbourne's Pascoe Vale. It suited them perfectly as it had a small granny flat behind it for Greer's mother Ann. "We bought it as an investment," explains Greer, "but when my mum was ready to move out, we realised we loved the location and the generous block size, and the period features of the house had really grown on us. So we stayed, and started thinking about how we could make the house more liveable for the long term."

With the flat built just four metres from the back of the house and connected to it with a jerry-built, leaky addition, the house felt hemmed in and cut off from its backyard. Early advice the couple received was unanimous, and all too common for period homes on large blocks this close to the CBD: they should knock both dwellings down and build townhouses. "I had a strong reaction to those architects saying

'don't bother keeping this'," says Greer. "The house has really good bones and the structure is solid – it seemed such a waste."

Happily, they met designer Megan Norgate after visiting her home on Sustainable House Day in 2012. Megan specialises in interiors and landscape design. "Megan could see the potential in what we had – she didn't just put it in the too-hard basket," says Tim.

The brief evolved over time, but centred around keeping the structures. They wanted to extend the living to the back of the house and better connect it to the large garden. "They wanted a more useable space, suitable for a family," explains Megan. This also included updating the "old, dated and cramped" spaces and improving the energy efficiency and comfort.

A structural assessment showed that the granny flat, while dark with low-ceilings, was solid and worth retaining. Megan concentrated on how to reinvent



it as a living space with natural light and a connection to the garden, all while making minimal changes to the structure. She collaborated with building designer Logan Shield from Geometrica to design a new roof for the granny flat with north-facing clerestory windows, and installed a connecting link between the two buildings, which reduced the footprint at the east to make room for a small courtyard to trap the morning sun.

“The old granny flat is now unrecognisable – entirely transformed into a warm, light, open plan living space and kitchen, plus a new laundry and a second bathroom,” says Megan. Existing window

openings were reused to avoid patching the brickwork, though large south-facing openings were reduced in size to improve thermal efficiency and the old single-glazed windows were all upgraded to timber-framed double-glazed units.

In the house too, Megan made the least possible structural change to achieve a better flow of spaces: the bathroom was relocated to the old laundry space and now does double duty as main bathroom and ensuite. Other alterations were limited to reassignment of a room’s use. The old kitchen is now the main bedroom and the old living room at the front of the house became a spacious study that’s separated

from the ‘action end’ of the house – important for effective working from home.

Minimal structural works enabled the majority of Tim and Greer’s small budget to be spent on the interior refurbishment. Many of the materials used internally are repurposed or reclaimed, including the 1970s solid Victorian ash kitchen cabinets. Removed at demolition, the cabinets were sanded back, re-oiled and upcycled into the new kitchen. They say this was labour-intensive, but the result is beautiful and satisfying.

“It’s wonderful when I have clients who understand the value of highly skilled labour,” says Megan. “I prefer to direct



The granny flat’s solid timber 1970s kitchen cabinets were removed at demolition and “seriously pimped,” according to designer Megan. They were sanded, stripped of their dated detail and re-oiled to form the core of the new kitchen. Megan added recycled hardwood shelving, E0 laminate pantry and drawers. The benchtop is Kobe board, made from a composite of recycled cement and timber: it has the appearance of concrete, but Greer notes that it is much warmer to the touch.



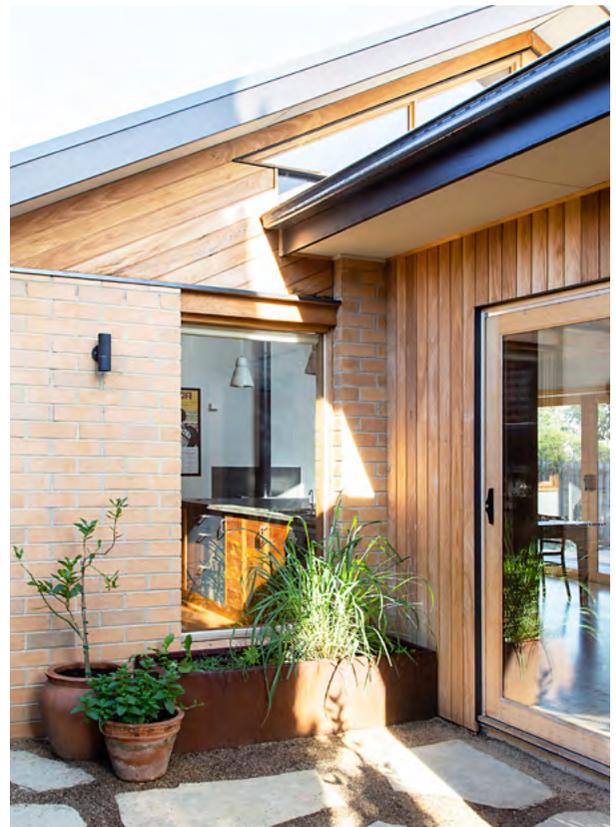
The flat’s bedroom and bathroom were reconfigured into a spacious laundry, mud room and second bathroom, with a high ceiling to allow space for an indoor clothes drying rack. “This space is great – we can bring William in from the sandpit, take off wet and muddy clothes and put him straight in the bath,” says Greer.





⬆️
 In other hands Tim and Greer's 1950s brick home would have been pushed over to make way for townhouses. Instead, the couple chose to retain the structure and refurbish.

➡️
 Built very close to the back of the house, the granny flat crowded the main house, and cut off its connection to the large backyard. By reconfiguring the connection between the two buildings and relocating the main living zone to the flat, Megan improved the flow of spaces and the connection to the outdoors.





As part of the project, Megan re-landscaped the garden. The backyard now provides a dog-proofed veggie gardening area, lawn and cubby, and privacy screening from the neighbours using climbers on recycled reo mesh.

money into human resources rather than new materials; of course it takes more skill and time to work with existing materials.”

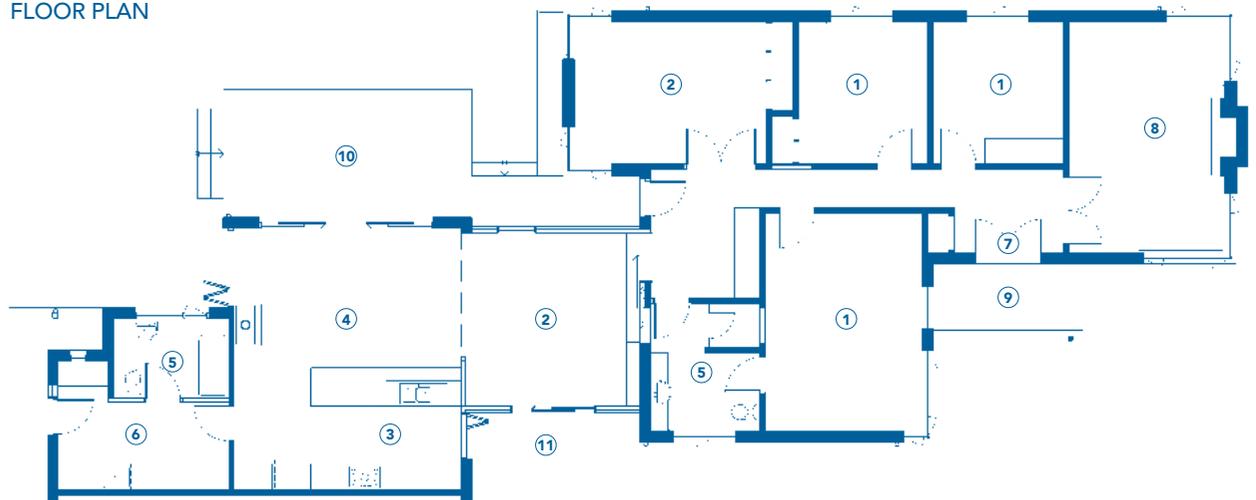
She also claims the “Tetris of reusing the existing kitchen cabinets” as the biggest design challenge of the project. They transformed them from a small country-style kitchen to a “super-functional entertainers’ kitchen”, with the addition of recycled hardwood shelving, E0 laminate pantry and drawers and a concrete-look benchtop made from Kōbe board (recycled cement bonded wood composite).

Completed in late 2016, the refurbishment has been a resounding success. Family life – Tim and Greer share the home with William, 4, baby Ava, and their dog – centres around the new living space in the old granny flat. It opens to a west-facing deck via large glazed doors and has excellent visual connection to the rest of the backyard. “The only thing

I’d like to improve is the warmth of the existing house,” says Greer, noting that when moving from the fully upgraded living spaces, the older rooms can feel cold by comparison. A full upgrade of the insulation to the main house was deferred to defray costs, but the couple are planning on tackling that project soon. They are also planning external shading for the west-facing glazing.

Both clients and designer are clearly very pleased with the results. “This is one of my favourite projects,” says Megan, “because of the opportunity to reuse the granny flat and to create something really cohesive out of something existing. It was so much more challenging and satisfying than a new build.” Tim sits back in his chair at the dining table: “My favourite thing about the place is sitting right here in this big open sunlit space! This room is just a corker.”

FLOOR PLAN



LEGEND

- ① Bedroom
- ② Living
- ③ Kitchen
- ④ Dining

- ⑤ Bathroom
- ⑥ Laundry
- ⑦ Entry
- ⑧ Study

- ⑨ Porch
- ⑩ Deck
- ⑪ Courtyard

Bungalow upcycle

—Specifications

Credits

INTERIOR & LANDSCAPE DESIGN; SCHEMATIC CONCEPT

Megan Norgate
from Brave New Eco

BUILDING DESIGN

Logan Shield from
Geometrica

BUILDERS

Macasar Building

PROJECT TYPE

Renovation and extension
with full sustainable retrofit

PROJECT LOCATION

Pascoe Vale South, VIC

COST

\$408,000

SIZE

House 200 m²
Site 761 m²

Sustainable Features

HOT WATER

- Solar system with 30 evacuated tubes, 300L stainless steel tank and gas boost from Red Circle Solar.

RENEWABLE ENERGY

- 1.5kW solar energy system.

WATER SAVING

- 2 Modline 3590L rainwater tanks; allowance for additional 10,000L water tank in future
- Davey Rainbank KRB1 kit pump and dual source controller
- Low-flow tapware and toilets
- Drip irrigation hose used throughout garden.

PASSIVE DESIGN / HEATING & COOLING

- Insulation: new floors R2.0 expanded polystyrene (EPS); existing floors R2.0 batts; external walls R2.5 (90mm) batts; internal walls R1.5 batts; ceiling 2 layers R2.5 (90mm) batts; roof R1.0 (50mm) foil-faced roof blanket
- Windows and doors located for cross-flow ventilation and zones for heating
- New cathedral roof allows for north-facing clerestory windows and natural light into the dining/kitchen area; reconfigured layout places daytime areas to the north.

ACTIVE HEATING & COOLING

- Ceiling fans with seasonal settings in living areas and bedrooms
- Evaporative cooling option in primary house.

BUILDING MATERIALS

- Boral Envirocrete slab
- External cladding: Modak Board 10mm MgO board and FSC-certified silver top ash boards with shiplap profile
- Cathedral ceiling: Australian plantation Paulownia lining boards
- Composite Kōbe board (recycled cement bonded wood composite) used for kitchen and laundry benchtops
- Floorboards: FSC-certified or recycled Australian hardwood floorboards to match existing; salvaged timber railway lockers were repurposed as a linen press.

WINDOWS & GLAZING

- Existing glazing replaced throughout with argon-filled double-glazed units. Existing window opening widths were used to avoid wastage and patching of bricks
- Reduction in south-facing glazing.

LIGHTING

- LED dimmable lighting throughout
- Vintage Danish metal pendants were used in the kitchen along with LED strip lighting under cabinets
- Up/down LED wall lights were used throughout to allow for ceiling fans
- Locally made Anna Charlesworth brass can wall lights in bathrooms; Giffin design recycled timber Pino pendant in dining room.

PAINTS, FINISHES & FLOOR COVERINGS

- Resene environmental choice VOC-free paints throughout
- Natural terracotta tiles used with Deepshield penetrating sealant
- Livos Kunos naturally based penetrating sealant on timber surfaces.

OTHER ESD FEATURES

- Reused existing skirting boards, architraves, floorboards, doors, door furniture, kitchen cabinets, bricks and sill tiles; kitchen cabinets upcycled, reused in the new kitchen
- Existing footprint reduced from 207m²; interiors reconfigured to suit changing needs
- Stainless steel, brass and specialty finish tapware used no chrome
- Salvaged fluted glass door used for new living space
- High efficiency appliances; no dryer, instead an elevated ceiling in the laundry allows for a drying rack system
- Productive annual vegetable gardens and fruit trees; rotating compost bins; herb gardens outside kitchen window
- Permeable landscaping surfaces; recycled brick edging
- Drought-tolerant native ornamental planting
- Hops growing trellis for home beer making.