HOUSE PROFILE
Preston, VIC

WORDS
Jacinta Cleary

PHOTOGRAPHY
Drew Echberg

Bike haven

Smart design maximises functionality in this cosy Melbourne home, with plenty of natural warmth and light plus space for bikes and pets.





AT A GLANCE

- *Reverse block veneer construction for natural warmth*
- *Bike storage in hallway and solar-heated space for rabbits*
- *Productive front garden makes use of often under-utilised space*
- *Flexible design for different life stages*



Andrew and Lizzie faced three challenges when planning their new home in Melbourne's northern suburbs: making good use of the nine-metre setback between the street and the house, ensuring all spaces had abundant natural light, and creating a place to store bikes within the house. Architect Ande Bunbury embraced the role of problem solver. "I loved the research that went into this project," she says, including investigations into under-slab insulation (tick) and urban composting toilets (not this time).

The couple wanted a house that didn't cost a lot to heat and cool, and somewhere that could "flex with the different stages of life," as Lizzie describes it. Today, the house suits rabbits, bikes and a young family; it's all on one level with wide doorways to ensure accessibility and independent living in the future.

In Ande's office, the project earned the affectionate nickname of the 'bike shed with a house attached'. This stemmed from the couple's preference for their bikes to be stored right near the front door. "Bikes need to be so easy to access that you can get on them and out the door in 30 seconds," says Andrew. "If riding is too hard, people default to car use."

The spacious entry hallway not only fits bikes on the ground, but has sufficient height for storing more cycles close to the ceiling using a pulley system devised by Andrew. Doubling as a mudroom, this area influenced the roof design at the front of the house. "The roof forms become flatter towards the back of the house, partly to minimise shading in the rear garden," says Ande.

To accommodate the two furry members of the family, the laundry doubles as a rabbit house. A salvaged terracotta chimney pot was installed as a bespoke rabbit-route from the laundry to the backyard run, and an internal pet door gives the bunnies a swift trip from the laundry to the kitchen. A solar air heater in the laundry keeps the rabbits warm and the space dry.

Ande says the couple wanted to get the bones of the house right, investing in a well-orientated building with the best passive solar performance possible, rather than spending on expensive taps and tiles (the bathrooms are deliberately small and simple to save money). "With north to the side of the block, the challenge was to avoid a standard long rectangular house, as that wouldn't really articulate the outdoor areas," explains the designer. Instead, her design features three connected volumes, each orientated for natural heating, cooling and light, and positioned to define two outdoor spaces.

Placing the front section of the house along the southern boundary has resulted in a productive north-facing side garden that stretches into the 135-square-metre front setback. This large garden allows a greater sense of connection to the neighbourhood. "I just wanted to make





Facing page and above Lizzie and Andrew were much less worried about finishes and trends than they were about the performance of the home, selecting materials that were low maintenance and low cost, and keeping the bathrooms deliberately small with standard tapware. Acoustic panels to most ceilings help reduce echoing.

"If you are trying to get out on a wet, cold, windy day and you don't have a place where you can get your kids dressed up, get them on the bike and cycle out the door, you're not going to do it. Making bikes really accessible means they get used."
– Lizzie

Below left High windows in the back bedrooms admit northern sun. **Below right** The house is designed for rabbit inhabitants as well as human.





the space useful," says Ande.

The decision to site the rear section of the house against the northern boundary maximises a second garden space, this time in the backyard. High windows bring northern light into the two rear bedrooms. The central kitchen has a connection to both gardens, allowing Lizzie and Andrew to see their children playing almost anywhere on the block. "The kitchen is usually the hub of the house, and a kitchen with a direct connection to outside always feels better," says Ande.

The couple opted for reverse block veneer construction to enhance the thermal efficiency of their home. The concrete block walls and slab floor provide thermal mass indoors, with an outer layer of insulation and cladding to minimise unwanted heat loss and gain. Acoustic panels on the ceiling help soften reverberation from the high levels of thermal mass. "Everyone finds it fatiguing if it's hard to listen," says Lizzie. The reverse-cycle heating and cooling is used infrequently. Even when temperatures near 40 degrees Celsius outside, the indoor temperature remains comfortably in the mid-twenties. During winter, Andrew and Lizzie use heated blankets rather than space heating if they feel cold when sitting.

Natural light is part of Ande's design approach, with lighting systems only where necessary in the home, and a preference for pendant lighting. "Compared to recessed lighting, pendants bring the light closer, so it's stronger where you need it, and you're not using as much energy."

Andrew and Lizzie say that the light is the loveliest aspect of the house. "It feels bright and airy all year round, even when it's dark and miserable outside," says Lizzie. "You feel that you're living in the world rather than in a box." S



LEGEND

1. Entry/bike storage
2. Bedroom
3. Living
4. Kitchen
5. Dining
6. Bathroom
7. Laundry/rabbit home
8. Toilet
9. Study
10. Music/craft/guest room
11. Deck
12. Rainwater tanks

SPECIFICATIONS

DESIGNER
Ande Bunbury Architects

BUILDER
S.T.A.R. Kolektiv

ENGINEER
Jonicha Engineering

PROJECT TYPE
New build

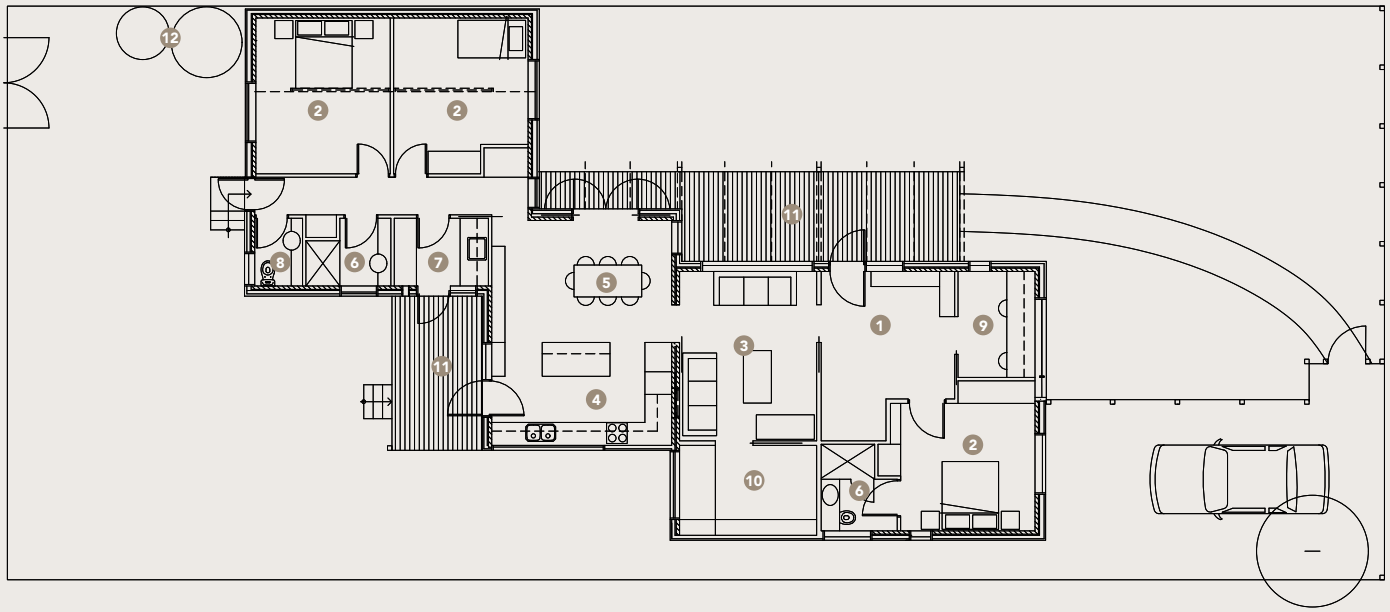
LOCATION
Preston, VIC
(Wurundjeri Country)

SIZE
House 162m^2
Land 556m^2

ENERGY RATING
8 Stars

ENERGY ASSESSOR
Blue Banded Bee

FLOOR PLAN



HOT WATER
– Sanden Eco Plus 315L heat pump

RENEWABLE ENERGY
– 5.28kW solar PV system by Elcon Solar
– Fronius Smartmeter

WATER SAVING
– 2 x 8,000L rainwater tanks connected to toilets, laundry and garden taps
– Aqua-2-Use underground greywater diversion system for garden watering
– WELS 4-star rated taps and Methven water-saving showerheads

PASSIVE DESIGN, HEATING & COOLING
– House orientated to maximise north solar access and garden area
– North-facing windows in habitable rooms with shading for summer
– High level north-facing windows in back bedrooms
– Reverse block veneer and polished concrete slab for thermal mass
– Casement windows open to prevailing breezes for natural ventilation
– Automated windows for cross ventilation when not home

COOKING
– Bosch induction cooktop

ACTIVE HEATING & COOLING
– SolarVenti SV7 solar air heater to rear bathroom and laundry
– Daikin reverse-cycle air conditioner in living room, sparingly used
– Artemis ceiling fans to all bedrooms, living and dining area
– Electric heated blankets to heat the person rather than the room

BUILDING MATERIALS
– Reverse concrete block veneer construction
– Cladding: Colorbond, and cypress macrocarpa from CERES Fairwood
– Concrete slab: 30% slag/flyash to reduce cement content and 20% recycled aggregate
– Insulation: Knauf Earthwool batts to ceiling (R4) and walls (R2.5), Knauf ClimaFoam extruded polystyrene board under slab (R2.7), DOW Styrofoam RTM-X to slab edges (R1.1)
– Autex QuietSpace panels on most ceilings to reduce echoing
– Reclaimed messmate joinery
– Low-VOC, low-formaldehyde MDF board for joinery
– Repurposed terracotta chimney pot as a rabbit tunnel

WINDOWS & GLAZING
– Double-glazed windows and doors with FSC-certified western red cedar frames, from Pickering Windows
– Roman and honeycomb blinds

LIGHTING
– Archilux LED ceiling-mounted fittings
– LED pendant lights and hand-printed lampshades from previous home

PAINTS, FINISHES & FLOOR COVERINGS
– Resene low- and zero-VOC paints
– Resene Lumbersider to timber windows and doors
– Prestige Carpets Natural Loop undyed wool carpet in kids' bedrooms
– Comcork rubber and recycled cork flooring to wet areas

OTHER ESD FEATURES
– All-electric home
– Active transport prioritised with bespoke bike storage in hallway, including for e-bikes
– Stepless entry and wider doorways for accessibility
– Main garden extends to the street with a low permeable fence for community connection