



# Adaptable Terrace

WORDS Emily Braham  
PHOTOGRAPHY Emma Cross



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## A terrace in Melbourne's inner north makes use of passive design for universal living.

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### **FOR GREEN SHEEP COLLECTIVE**

Director Shae Parker McCashen, flexibility is at the heart of creating sustainable, liveable homes for long-term benefit. So the brief for this Brunswick terrace made perfect sense: a sustainable rental property with adaptable spaces to accommodate a range of lifestyles.

In the end the homeowners were so impressed with the design they decided to live there themselves, letting their existing house next door instead. It has since transitioned easily to a rental property while the couple travels. "It's exciting to see how well the design has worked for them, giving them the adaptability they were looking for," says Shae.

The terrace rises to two levels at its northern boundary, and it is the first floor that really demonstrates this flexibility. It flows from indoors to out with enclosed balconies either end of the interior, designed to suit varying requirements, serving as a generous third bedroom with ensuite and private outdoors area or an alternate living space. →



Outdoors and indoors blend in this inner city terrace for broad appeal and adaptable living.



The flexible first floor flows between two enclosed balconies offering private outside space, to a master bedroom or an alternative living space.

The long narrow block and tall buildings to the north made solar access a challenge, but north-facing clerestory windows, which also help ventilate the house through the ‘stack effect’ thermal chimney, offered a solution. All occupants have also been impressed with the home’s winter warmth, retained with thermal mass and double-glazing.

Designing homes that can readily adapt to multiple occupants over time is a key component of sustainable design, and an increasing concern for urban designers. However, designing with a life-cycle approach for broad appeal needn’t mean generic, as Shae explains, “Architects have a responsibility to create positive spaces that are light, relate to the outdoors, connect people to each other and that present a positive aspect to the street. So they are places people want to be in and that contribute to the community at large.”



The sustainable terrace aims to suit multiple occupants over time with open plan living and adaptable spaces.

# Sustainable terrace

—Specifications

## Credits

### DESIGN

Green Sheep Collective

### BUILDER

Elyte Focus

### PROJECT TYPE

New build

### PROJECT LOCATION

Brunswick, VIC

### COST

\$420,000

(inc. professional fees)

### SIZE

House 135 sqm

Balconies 30 sqm

Land 200 sqm

### BUILDING STAR RATING

5.4 Stars (pre May 2011, exceeded the 5 Star requirement of the time). Site orientation and the existing two storey building to the north made a higher rating difficult to achieve.

## Sustainable Features

### HOT WATER

- Rinnai Infinity 26L instantaneous gas hot water system.

### WATER SAVING

- 2000L rainwater tank connected to all WCs and rear garden
- High WELS rating fittings selected for all taps and WCs, supplied by Reece Plumbing.

### PASSIVE DESIGN

- Hy-Tec concrete slab for thermal mass
- North-facing motorised, openable clerestory windows on each level to provide northern light and natural ventilation, including the ‘stack effect’ thermal chimney
- North-facing eaves sized to allow winter sun but protect from hot summer sun
- Fixed shading to east and west windows

- Central courtyard to provide natural light and ventilation to central rooms
- Zoned to enable living areas to be shut off from bedrooms, bathroom, hallway and laundry to control heating and cooling requirements
- R4.5 Tontine polyester insulation batts with air gap, with Kingspan reflective air cell used in ceilings
- R2.5 Tontine polyester insulation batts with air gap with Kingspan reflective air cell used in walls
- Trees used for shading east and west windows in summer.

### BUILDING MATERIALS

- Recycled red brick external walls
- Radially sawn Silvertop ash timber battens used for external cladding and balustrade screens
- Laminex EO MDF cabinetry.

### WINDOWS & GLAZING

- Double-glazed Velux skylight with low-e coating used in south study area
- Double-glazed windows with 12mm air gap, argon gas-filled and low-e coating supplied by Rylock
- Rylock thermally improved aluminium window frames.

### LIGHTING

- Compact fluorescent and other energy saving light globes.

### PAINTS, FINISHES & FLOOR COVERINGS

- Dulux Enviro2 low-VOC paints used throughout.

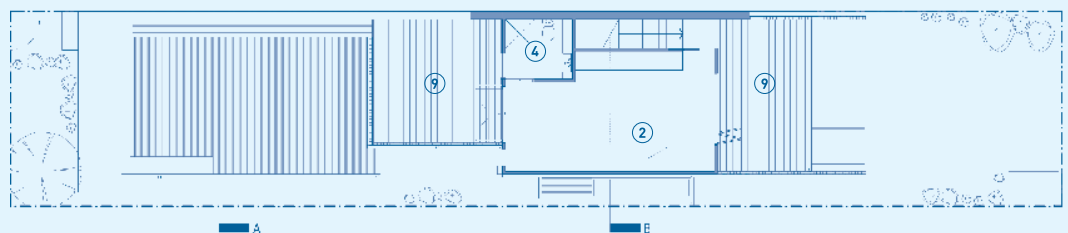
### OTHER ESD FEATURES

- Energy efficient appliances.

## GROUND FLOOR PLAN



## FIRST FLOOR PLAN



## LEGEND

- ① Dining
- ② Bedroom
- ③ Laundry
- ④ Bathroom
- ⑤ Kitchen
- ⑥ Study
- ⑦ Living
- ⑧ Shed
- ⑨ Balcony