

## 28 LILY STREET, SEDDON, VICTORIA - 'LILYPAD'

**Owners** Anna and Viv Faithfull

**Architect** The Design Faithfull and WH Architects

### **Design Brief**

To create a three bedroom, sustainable, family home on an inner-city block (228 m<sup>2</sup>) with flexible spaces and maximum green space

### **Structure**

Timber frame with minimal use of steel

Double timber stud wall construction for maximum insulation and minimal thermal bridging

Alignment of spaces to maximise structural efficiency

### **Insulation**

Floors: R 1.5 expanded polystyrene insulation under concrete slab and to edges of building. R

Upper Floors: R 1.5 Autex Green Stuf polyester

Walls: R 4.0 Autex Green Stuf polyester and Bradford breathable, reflective sarking

Boundary Walls: R 2.0 Autex Green Stuf polyester, Bradford breathable, reflective sarking and 75 mm Hebel panels

Roof: R 4.0 Autex Green Stuf polyester and Bradford breathable, reflective sarking

### **External Cladding**

Vertical, timber shiplap using locally sourced silver top ash radially cut to minimise wastage oiled with Livos Alis Deck Oil (Light Oak) (non-toxic, plant oil based) (Radial Timbers [www.radialtimbers.com.au](http://www.radialtimbers.com.au))

Bluescope Steel Zincalume Custom Orb steel sheeting

Hebel Power Panel, rendered, painted – Dulux Weathershield

Makrolon Polycarbonate twin wall double skin panels and roof lights

### **Internal Finishing**

Walls and Ceilings: Eco ply lining oiled with Livos Kunos White.

Utilities areas: Recycled core plaster board painted with EColour recycled motor oil based emulsion

Screens and Balustrades: Atlantis Turf Cell (recycled black)

Floor: ground floor exposed concrete slab, ground and oiled with Livos Kunos Clear. First floor eco ply sanded, oiled with Livos Kunos Clear, Kaldet Black, BioPaints Black Floor Varnish

Exposed LVL roof structure over the dining room

### **Windows and Doors**

Locally sourced Victorian Ash framed low-e double glazing

Internal eco-ply sliding panels

### **Joinery**

Cabinetry and stairs in eco ply oiled with Livos Kaldet Black and Livos Kunos White

IKEA Udden stainless steel bench tops (bases reused for cubby house)

### **Power and Lighting**

Aurora Power One Solar Inverter PVI 2000 AU – 8 solar panels on the roof  
Surface mounted fittings throughout, CFL bulbs currently used to be updated to LEDs in the future, minimised use by careful placement and reflection  
Design utilises natural light to maximum effect

### **Heating and Cooling**

Solar passive heating via extensive north facing full height low-e glazing  
Central stair void promoting natural ventilation  
Cross airflow via high-level, east and west windows and centrally positioned fans  
Solar boosted, hydronic under floor heating and radiators  
Sunda 32 Evacuated Tube Solar panels  
Latent heat exchanger  
Bosch 32 instantaneous gas booster  
Ceiling and/or wall fans in each room  
Retractable awning to northern glazing  
Seasonally removable awning to upstairs northern glazing  
Bespoke retractable security shutters to allow for open doors in summer  
Hot water runs minimised by centralised wet areas

### **Water**

Root Zone grey water treatment and recycling system (supplying laundry, WC, garden irrigation)  
Rainwater tanks: 5500 litre collecting all roof storm water – connected to laundry and garden irrigation

### **Landscaping:**

Found and reused materials  
Atlantis Turf Cell and FloCell Recycled Plastic Drainage and Surface Material (allows grass to grow through whilst strong enough for vehicle traffic)

### **Green Terrace**

Firesone EPDM – single ply membrane, loose laid on eco ply base  
Atlantis FloCell Recycled Plastic Drainage cell and Geotextile  
Hydrotron Light Expanded Clay Aggregate (LECA)  
Organic compost, native plants and turf

### **Other Features**

'Diana' Dining Table by The Design Faithfull  
Dining table light fixture '56 Cloud' by LifeSpaceJourney ([www.lifespacejourney.com](http://www.lifespacejourney.com))  
Dining Chairs by LifeSpaceJourney  
Bathroom vanity by Estella Design ([www.estelladesign.com](http://www.estelladesign.com)) (Celery top pine finished with Two Pac laquer and Livos Kunos Clear)

### **Builders**

Owner-builder with Rob Parry Constructions and Estella Design ([www.estelladesign.com](http://www.estelladesign.com))

### **Plumbing**

Rory Fort, Enviro Friendly Plumbing ([rory@envirofriendlyplumbing.com.au](mailto:rory@envirofriendlyplumbing.com.au))

### **Electrics**

Luke Adams and Jacqui Edge, Adams EcoElectrics, <http://adamsecoelectrics.com.au/>

