



YALLINGUP RESIDENCE

**ENERGY EFFICIENT ECO HOME ON
120 ACRE YALLINGUP PROPERTY**

A young growing family commissioned Threadgold Architecture to design an energy efficient eco home on their 120 acre Yallingup property that embodied their ideals to live sustainably and off-grid.

The brief demanded the home be power self-sufficient and incorporate passive solar design principles to reduce energy consumption. This south west architecture optimises sustainable design principles by being sited at elevation to take advantage of views, cooling breezes and is surrounded by citrus, nut and pomme fruit orchards set out to permaculture principles. It achieves passive solar design through a large area of north facing glazing.

During the warmer south west days, the owners open the glass louvres to the underside of roof eaves on the northern elevation to generate cross ventilation and cool the kitchen and living areas. Throughout the colder days of a south west winter, the family closes the operable windows and louvres to enjoy direct sunlight across 85% of the living floor space. A selection of window and door systems from the Elevate Aluminium range of commercial windows and doors were chosen for this project. Elevate Series 704 SlideMASTER™ doors were used to create bold wide openings, whilst Series 411 FoldMASTER™ Bi-fold doors are used to create classic alfresco style.

The honed concrete floor to living areas captures the radiant heat from the direct sunlight during the daylight hours and releases the heat through cooler south-west evenings.

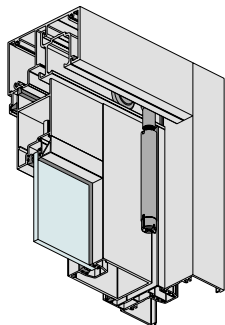
The specification for the house incorporates materials that have a low embodied energy with rammed limestone to the south elevation for heat retention and Corten cladding the west elevation. The house boasts complete power self-sufficiency with a 5.5kw photovoltaic system discretely hidden from view behind the single lap standing seam anthra zinc clad parapet. The house's sustainable design credentials are further endorsed through rainwater harvesting and a potable water storage capacity of 550 kilolitres. The house's green building benefits are also enhanced through incorporating a 440 litre solar hot water system boosted by a wood fire box. The fitout has reduced the embodied energy of the build by utilising locally sourced recycled jarrah and sheoak hard wood species with a high natural resistance to white ants.

The brief also required the landscape surrounding the house to predominantly comprise of edible plant species such as dwarf coffee trees, feijoa, papaya, pineapple and tamarillo trees also laid out to permaculture principles.



For more information and the full gallery, visit:
elevatealuminium.com.au

Architect: Stuart Threadgold www.threadgoldarchitecture.com.au
Photographer: Olivier Marill Photography



ELEVATE™ SERIES 411 BIFOLD DOOR

- × The series 411 Bi-fold door incorporates 50mm thick heavy duty panels for improved durability.
- × Can be manufactured with compliant panels up to 3000mm high.
- × Bi-fold doors are hung on Centor™ twin stainless steel bearing rollers in heavy duty dual overhead tracks.
- × The standard E2 rollers on our bi-fold doors will carry door panels up to 40kg. Heavy duty E3 will carry bi-fold door panels up to 80kg.
- × The Surelock™ adjustment on the pivots and carriers allow all panels to be lifted or lowered easily with a flat screwdriver. Bi-fold doors can be adjusted vertically up to 5mm +/-
- × Carriers, pivots, hinges and fixings supplied in 304 SS.
- × A variety of lever and lock options are available including multi-point locking on our bi-fold doors for added security.
- × Bi-fold doors can be fitted with Centor S1E Eco Screen



Based in Busselton, Grocock Glass is a locally owned and operated family business that has been servicing the area since 1969. Being owned by the third generation of the Grocock Family, Grocock Glass have more than 40 years of experience and knowledge in the trade. All Grocock Glass products are manufactured to meet customers individual design specifications. Grocock Glass pride themselves on having the knowledge, experience and vision to help you create your individual stamp on your property.