

Contemporary Family Home

Lucy Ifould

As stated in the design brief, I was commissioned to design a contemporary and energy efficient house for a growing family. The site for the design is a 20-acre property located in the Adelaide Hills wine region. The brief stated the aesthetics of the design must capture the sensational views using large windows, but was to maintain single story. The form was to include a slanted, inclined roof-line to facilitate these views. Another significant requirement was to implement a variety of recycled or recyclable building materials for sustainability. The function required a spacious home for a family, fitted with an open living, dining and kitchen space, one master bedroom, two double bedrooms, and a double garage.

Influential architects I studied included Lever Architecture's L'Angolo Estate, Patrick Bradley's Grillagh Water and Glenn Murcutt's Donaldson House. They share commonality in their simplistic styles and push the boundaries of modern design by exploring different forms and materials. Through their influence, I based the form of my design around a recycled shipping container, included a slanted roof line and maintained a controlled colour palette. Fundamentally, my design was inspired by new energy efficient design ideas to reduce energy wastage and minimise environmental impact. I discovered materials such as recycled steel, precast concrete, rammed earth and recycled wood are sustainable alternatives in construction. Aspects such as more efficient strategies to heat and cool a house, installing water tanks, insulation, and orientating a house to have north-facing windows also contribute to a sustainable design.

My design well exceeded the criteria stated in the design brief. The overall shape of my design solution was based on using shipping containers, which assisted in giving it a contemporary aesthetic. Through implementing several energy efficient design aspects including large, double glazed, Northern facing windows, a large water tank, solar panels and sustainable materials such as precast concrete, rammed earth, recycled wood and a recycled shipping container, the criteria of the design brief was successfully met. The design brief was satisfied through creating a contemporary, energy efficient and sustainable home regarding materials and appliances.

The most effective aspect of my design was the creation of highly realistic and sophisticated architectural illustrations. I achieved this through utilising the highly specialised architectural visualisation program called Lumion, improving the aesthetics of my design to a professional standard. Using 3D modelling software including SketchUp and Lumion, I could view my design from all angles and therefore carefully consider satisfying the functional requirements. An extended, slanted roof line was incorporated into my design, similarly featured in L'Angolo Estate. This, and the implementation of a recycled shipping container, inspired by Grillagh Water, demonstrated the connections my design had with other architect's works.

My final design has both fulfilled the brief and assisted in expanding my philosophy of architectural design. Initially, my knowledge in architecture was limited, however this practical has developed my understanding. My design aesthetic and philosophy is centred around form and function being equally important. As I satisfied the functional requirements, I paid close attention to the resulting aesthetics and adjusted this to meet the requirement for creating a contemporary family home with a strong emphasis on sustainability.

#