Practitioner's Statement

## Micro Home

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Micro home is designed for my clients who are a young couple that travel often for work. The couple needed a home that would be easy to manage and maintain whilst they travelled. They wanted it to be a sustainable and environmentally friendly micro home suitable to the Adelaide Hills area. They liked the idea of it being 'off the grid' ie not connected to electricity or mains water. I needed to make sure it had the capability to be moved like a portable home as the client wanted to build the micro home off-site and transport it to location. I had to design the interior of the building in as little space as possible, yet allowing for a couple to comfortably live. I needed to incorporate many space saving ideas and use sustainable materials and ecofriendly technologies to meet the design brief.

As my clients were young I wanted to make the micro home as contemporary and modern as possible with a sleek and timeless look. The micro home is a simple rectangular shape with an angular and efficient roof line inspired by The Schwimmhaus by Confused-Direction. The roof line has two gentle slopes, one facing east and the other facing west. The roofline allows sunlight to be in contact with solar panels throughout the whole day in summer and winter, maximising solar energy. The roofline also allowed for large north and south facing windows. The windows allow as much natural light into the building and are specifically placed for natural ventilation, cool breezes in summer and heat from the sun in winter.

The interior was challenging to layout as I needed to include all the necessary rooms whilst providing maximum storage in the smallest space possible for two people to comfortably live. The micro house plan is 5m wide and 7m long with an upstairs room 2.5m wide and 3m long. My design layout utilises open plan living to maximise space utility and to create the illusion of a larger area and is inspired by the work of Gabrijela Tumbas. I have made most of the furnishings multifunctional, for instance the storage cupboard opens up into an effective small office, the shower has a clever fold out bathtub, the stairs and lounge include storage underneath, and the kitchen island bench also serves as a dining table for four. I placed the bedroom above the bathroom to allow for some privacy and separation from the main living area and to create a more effective and open space on the main floor. The layout and design is efficient and allows for comfortable living for two with the capability of having guests.

The materials chosen to build the micro home are sustainable, durable and lightweight to allow for easy transport and a low maintenance, long lasting building. The wall and ceiling materials are well insulated to keep the home at a comfortable temperature. The triple glaze windows with window coverings, block the hot summer sun and when opened allow in the winter sun. The home also has an adjoining patio with removable shade sails that can be put up to also block summer sun. The floor material is a thermal mass, it collects heat during the day from the sun and releases it at night to regulate the indoor temperature, creating an effective, sustainable and ecofriendly home.