

Services at Adobe Cottage

In this series on Adobe Cottage, Jo Ann has looked at the general appeal of this eco cottage set high on the hill at Onerahi, looking out to the east with forest covered hills on the other side of the valley, or looking south down the harbour to Marsden Point and the Refinery.

This month we will delve into the heart of the home and discuss the functionality of grouping water services close together, and will use the hot water piping as our reference.

When designing new homes or renovations, eco-designers try to group the essential services close together. By having all water fixtures clustered together piping costs (hot and cold water supply, wastes and drains) are reduced along with minimising water wastage until the hot tap runs warm.

A solar panel on the roof was chosen as the primary source of hot water heating, with a wet back to the small wood fire in the snug below providing winter back up.

The layout is very simple with the main bathroom upstairs between the bedrooms. The hot water cylinder set high in a cupboard backing onto the bathroom. The bathroom is above the front door recess so that the kitchen is not directly beneath any services for good feng shui and practical considerations ie should a leak develop. On the other side of the main entry is the wet room. This wet room houses laundry, level access shower and toilet. From cylinder to faucets the maximum pipe run is less than 12 metres. Similarly the waste pipes and drains are kept to a minimum.

This layout, of bathroom upstairs with the toilet pan behind the door, enabled the bath to be placed beneath windows that come down to the bath level, to take in the fantastic view down the harbour to the lights of Marsden Point, whilst relaxing in a leisurely bath.

The downstairs 'wet room' with the tiled level entry shower adjacent to the toilet, and wide doorway allows ready access for mobility impaired or wheelchair bound folk. A big butlers sink doubles as the laundry tub and at the far end of the room sits the auto washer. An inexpensive (in the ceiling) three in one heater lamp, light, and extractor fan unit has proven to be very effective in removing smells and steam from the shower. This room has a very narrow bank of cedar bladed louvres going from floor to ceiling to provide a cross cooling breeze (coolth) in summer from the vegetation outside.

The Sola 60 panel on the roof is not seen when approaching the cottage. With the panel facing due north and having wide unobstructed view of the sun for most of the day, excellent heating is provided throughout the year. Direct heating of the stored water is more efficient than using a secondary fluid (akin the the water in a cars engine) and Sola 60 provides a pump to circulate the water when panels are above the cylinder. The panel was fitted to the existing low pressure cylinder when an interest free loan scheme was implemented by the government some years ago - now a subsidy is provided through ecca

visit : ecca.govt.nz for more information

note : all wet backs use a header pipe instead of a relief valve to prevent any possibility of explosion should the water boil)

We manage our hot water by checking the temperature gauge when we arrive home on cloudy days. Should it be low then a quick burst from the electric element, usually less than an hour, lifts it above the minimum 55 C which is the maximum temperature for all household bathroom fixtures. To prevent the possibility of legionnaires disease the hot water must raise above 65 C which the panel achieves regularly.



kitchen with island bench and doorway to the wet room
(note wet back pipes along beam)



wet room
(sloping tiles over water proof membrane to the floor waste,
toilet pan behind door = good space for wheelchair access)



upstairs bathroom
(windows down to the bath giving views over the harbour,
the toilet is left of the pedestal basin behind the door)