

# DESIGNED FOR ALL AGES

Homes designed to meet the lifetime needs of occupants, needn't take up more space. In fact, all age groups, especially children and the elderly, stand to benefit from a house that is carefully planned.

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One of the most interesting aspects of our ageing society is easily forgotten – children and older people have many of the same housing performance and design needs as each other, albeit for different reasons. For instance, in terms of ambient air temperatures, both children and older people are physiologically less vulnerable when average temperatures are above the average 18°C often referred to as the World Health Organisation standard.

Both are also more vulnerable to accidents in the home and around the section. The

window that pushes out and obstructs outdoor paths presents real dangers to both. Children tend to be unaware of such hazards when running around outside, and older people, whose eyesight may be compromised, may find themselves walking into an open window.

Similarly, both groups are vulnerable to the poor separation of parking, driveways and domestic areas. In this regard, children are most vulnerable because of their size. About four children a year are killed on driveways in New Zealand, while, in Auckland alone, about 12 children a year are admitted to Starship

Hospital because they were struck or run over on a driveway. Both children and older people are vulnerable to injury from steps and stairs and to the dangers of burns from poorly controlled hot water or burns from badly placed appliances.

## Everyone's needs can be met

This means that building homes in an ageing society is not only about building homes for old people. It means designing well for all. It is not simply thinking about a niche market of 'old people's' houses to which builders and developers apply design criteria such as those in the Lifemark™. Applying those sorts of standards is a benefit for all and will make homes work better, be more attractive and have more use and value over the long term.

Dwellings that last – not simply in terms of materials but in terms of use – are critical to a sustainable infrastructure.

## Comparative costs

One of the anxieties around designing homes that are accessible and safe using the standards referred to under a variety of names – universal design, accessible design or lifetime design – is the fear that homes will be more costly and inevitably bigger than dwellings that do not employ those standards. Overseas evidence shows that costs are generally comparative with only marginal increases. This is often associated with a tendency to increase the size of the dwelling.

But is this increase in size necessary? The experience of the Marlborough Sustainable Housing Trust, currently developing affordable housing for people in their shared-ownership programme, suggests not. Increases in dwelling size are more likely if existing non-accessible designs are used and attempts are made to adapt existing layouts to make them accessible.

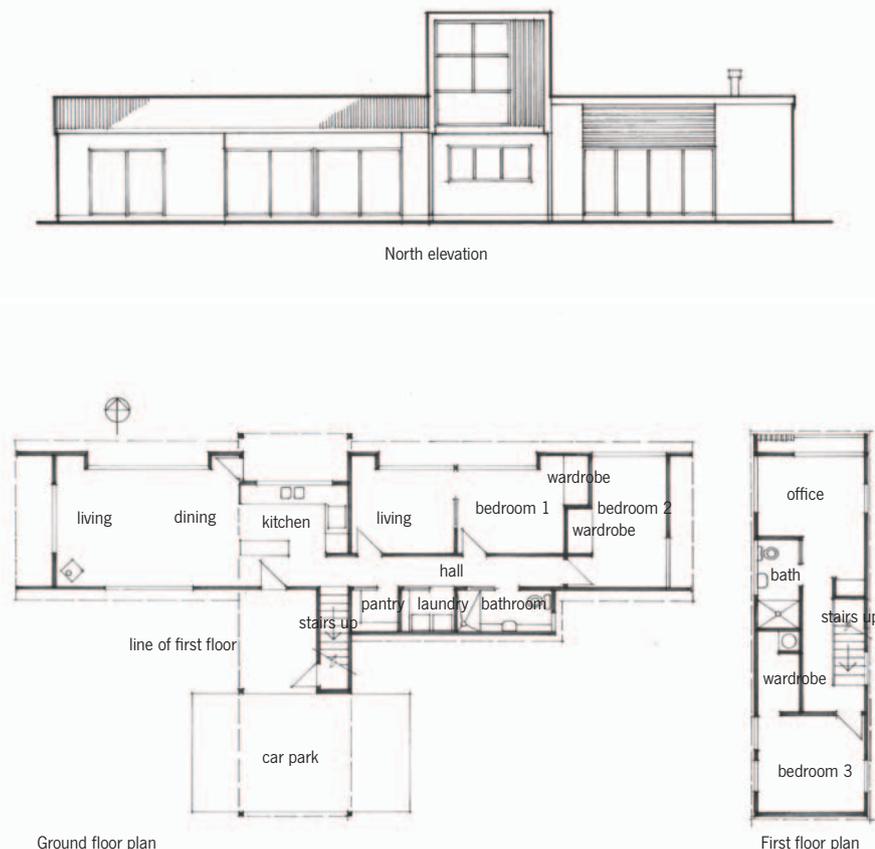


Figure 1: Two-storey house, designed by Kyle Davey and commissioned by Marlborough Sustainable Housing Trust, working with Ben Grady of Discovery Homes and Bev Doole.

Designing up from first principles, designing to the site and to lifetime design means that size can reflect the tastes of the occupants rather than simply be an inevitable outcome of accessibility and safety considerations.

### Example 1: Flexible for all ages

Take, for instance, a Marlborough Sustainable Housing Trust dwelling (see Figure 1). Currently in the final design stages, it will meet the needs of three generations, including someone working from home. In less than 136 m<sup>2</sup>, the house contains two downstairs bedrooms and a private sitting area for an older person wanting to maintain a space to entertain friends without having to go into the traditional 'granny flat'. There is a bedroom adjacent for a carer or another family member.

While there is no ensuite, an accessible bathroom is very close. The kitchen has a turning circle, and the ground floor has level access throughout. There is also level access onto the patio and level access at the main entrance. This area is cleverly covered by the second storey, providing shelter for people arriving by car. Upstairs, there is another bedroom, bathroom and work area with provision for a platform lift, should one be required in future.

The house is north facing, designed to let in the sun in winter and keep it out in summer, with a wood burner, solar hot water heating and a water tank for the gardening. The outdoor living areas are separated from the car circulation areas.

### Example 2: Small and perfectly formed

Another example is a house designed for an 80-year-old seeking a new start after the Christchurch earthquakes (see Figure 2).

Designed from scratch to meet the Lifemark™, it has two bedrooms and a separate area with a

hobbies room and laundry under a single roof. It is north facing, with virtually no south facing windows, and a level entrance from the carport through to a covered breezeway that can be locked off entirely. The use of fencing and the breezeway make the domestic area inside and out very secure.

An accessible bathroom and kitchen take up the southwest corner of the main building, and there are no anxieties with hallways and corridors.

A roomy 2-bedroomer, which could cater for an additional bedroom in place of the hobbies

room, the house is still only 121 m<sup>2</sup>, including the patio areas.

This is about space because of taste, not additional space because of fiddling around with adjusting hallways and corridors and pushing out existing kitchens to meet turning circles.

### It all starts with the design

Designs like these have emerged because they have taken ease, accessibility, comfort and the desire to age gracefully at home seriously at the design stage. 🟡

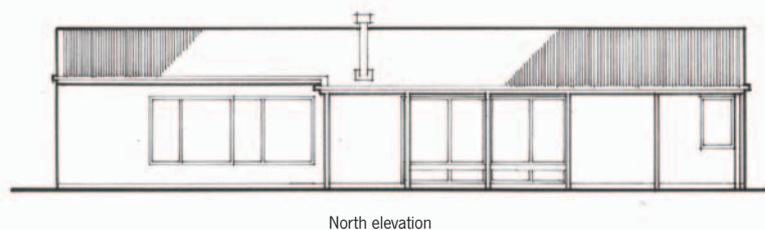


Figure 2: One-storey property designed by Kyle Davey with flexible use options.