

NEAT affordable courtyard house

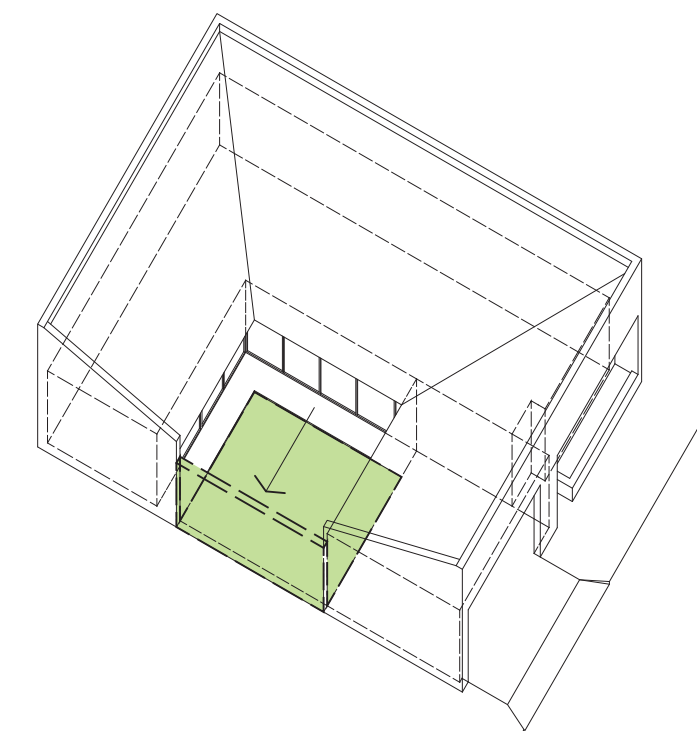
The challenge of affordable housing is one of the most important facing Australian policy makers, developers and architects. Increasing property prices, the changing demographics of Gen-Y entering the market and a downsizing ageing population require alternatives to the detached suburban house on a large block near the urban fringe which is the current dominant housing type. Young adults are staying at home longer, many first homebuyers are co-purchasing with family and friends and the traditional family unit, mum and dad with two children, is being replaced by multiple generations living in one house. The current market favors a low maintenance, sustainable, high technology, compact, semi-detached house close to activity centres.

We have investigated a housing type which is affordable, climate sensitive, low maintenance, flexible, modularly expandable and transferable to both green-field suburban and inner city infill situations, both of which currently offer smaller blocks around 250 sqm (13.5 x 19m). The 'courtyard house' was selected as the starting typology, being suited to the Australian climate and highly adaptable to different orientations utilising verandahs to control solar access to its internal spaces. It also offers a sense of enclosure and privacy sometimes lacking in medium and high density housing on small blocks and can be organised to provide connect-ability with adjoining dwellings. Our proposal challenges the current setback and open space planning restrictions while not detrimentally affecting the amenity provided for occupants and adjoining neighbours.

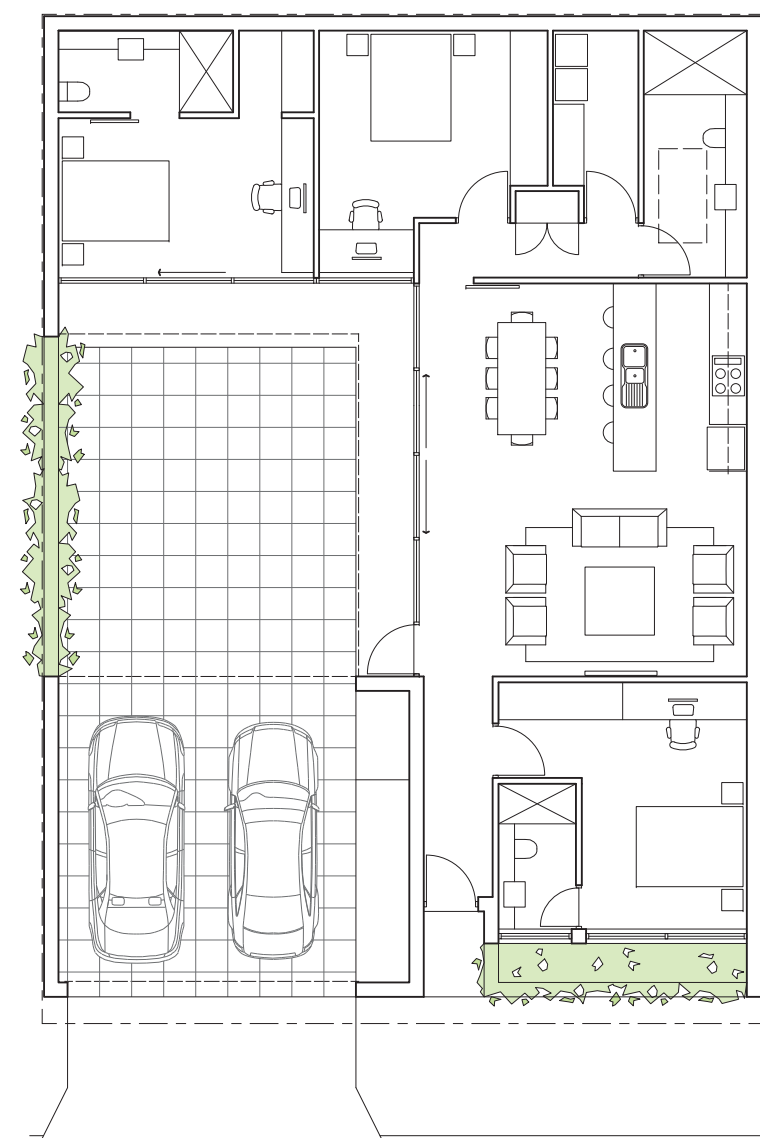
Affordability is achieved through simplicity in design, materials and construction. The courtyard house is a 'less is more' approach. We believe the medium density housing currently offered by the market can be greatly improved and have consciously restricted our investigation to simple, single storey, medium density construction which provides economic, accessibility and privacy advantages. The area of the house is 150 sqm plus 45sqm of garage which we believe from experience is achievable for a budget of \$345,000 at \$1750 per sqm. Standard materials such as brick, concrete and metal roof sheeting have been selected for their economic and low maintenance properties but can be used in innovative ways. Sustainable systems such as rainwater tanks collecting and re-cycling roof run-off and electric solar collectors are integrated into the dwellings distinctive roof configuration.

The courtyard house consolidates the outdoor area on a compact block into one centralised usable space rather than the series of left-over fragmented spaces. Gen-Y and retirees both value low maintenance, usable outdoor space rather than a large, high maintenance backyard with lawn. We have replaced the traditional horizontal lawn with a vertical garden highly visible from the houses internal and external living spaces. The organisation of the house allows the garage to be used as part of an enlarged courtyard space when required for social events, gatherings and barbecues. A semi-open mesh garage door also allows a visual connection to the street and surrounding community.

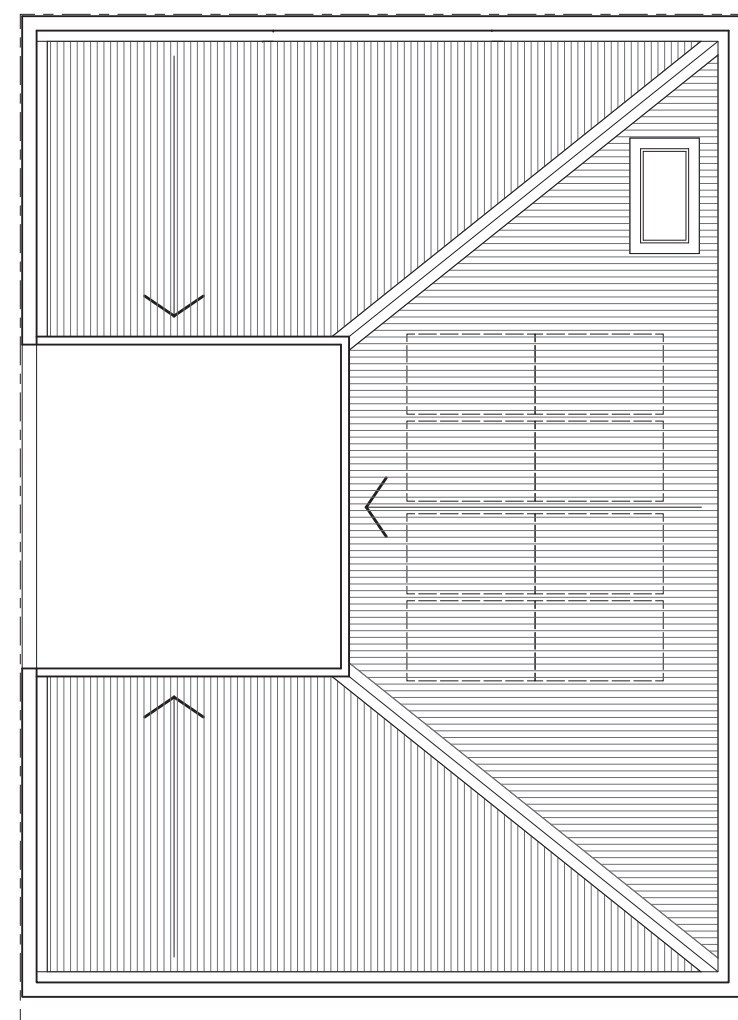
The houses internal organisation provides options for traditional family based use such as a married couple plus two children as well as options for multi-generational family use and shared occupation by friends or tenants. Two bedrooms are accessible from inside the house but separated from each other whilst a third bedroom is independently accessible from the courtyard providing it with a further sense of separation often preferred by tenants or young adults. The house also provides a potential modular connect-ability allowing two adjoining houses and courtyards to be opened up to each other. Over a period of time this offers opportunities for young adults to buy and connect the house next to their parents or elderly grandparents to buy and connect next to their children. The courtyard house represents a type of generational expandability, flexibility and adaptability responding to the changing market dominated by Gen-Y and ageing retirees.



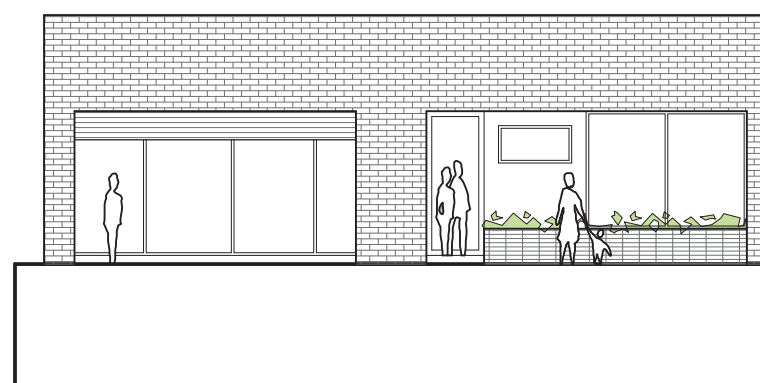
centralised vertical garden



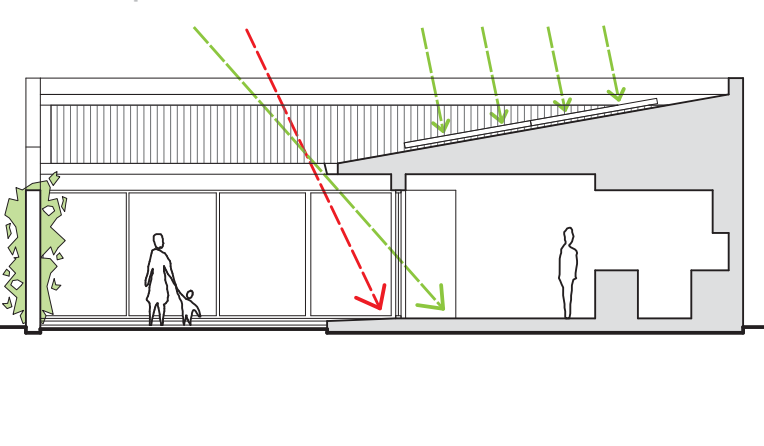
floor plan



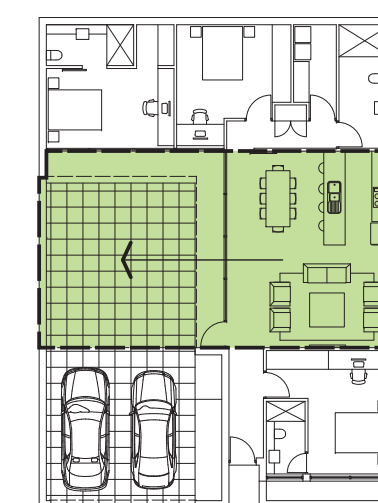
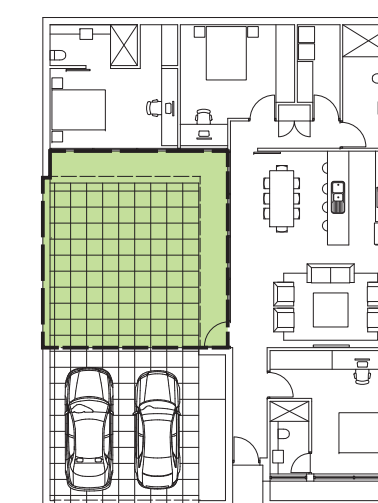
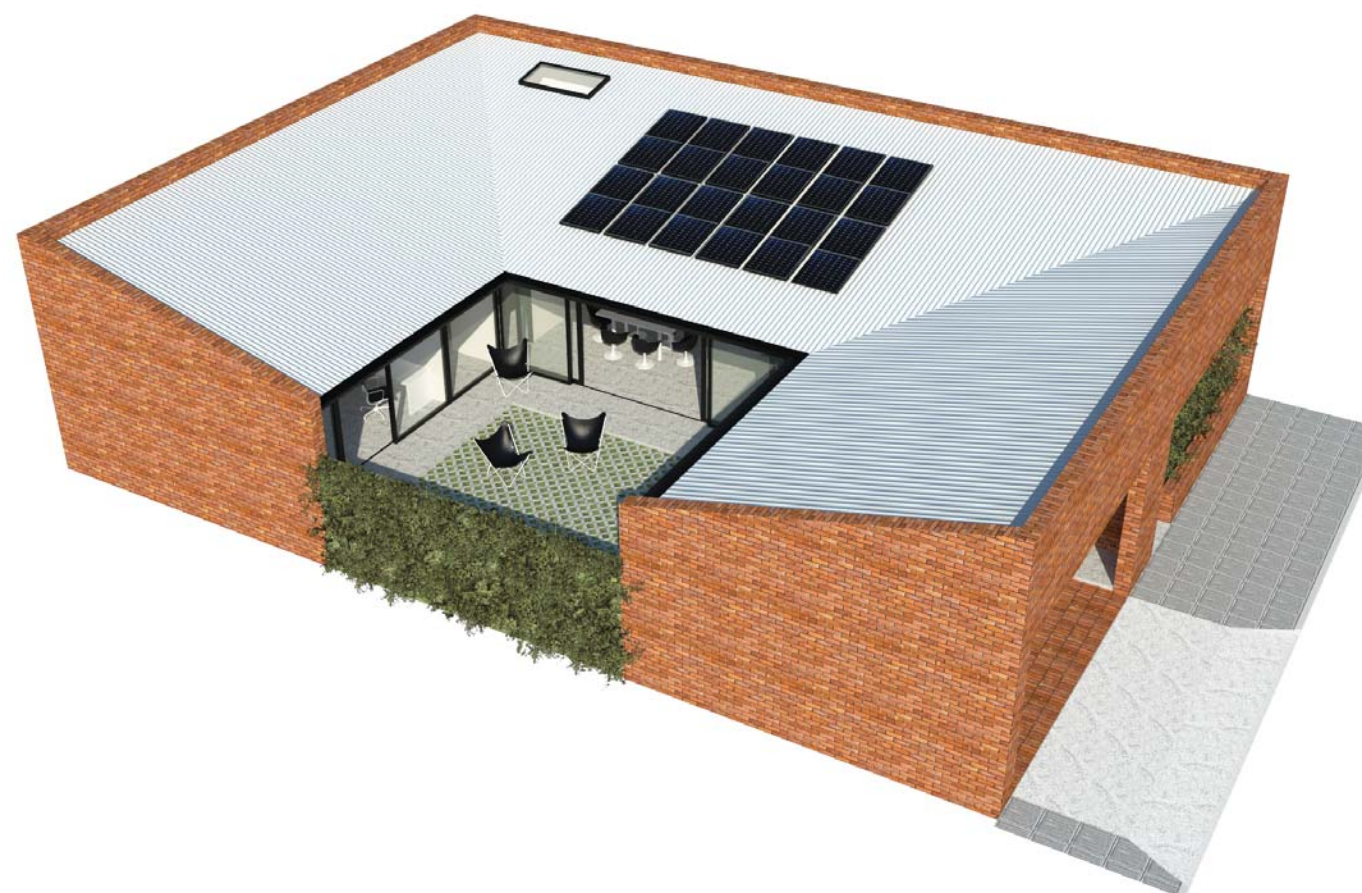
roof plan



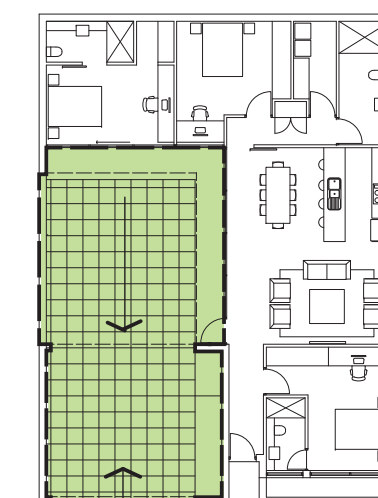
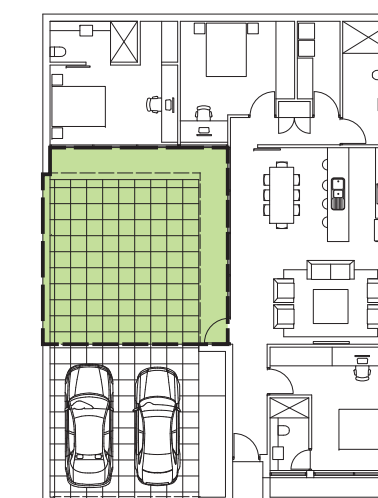
elevation



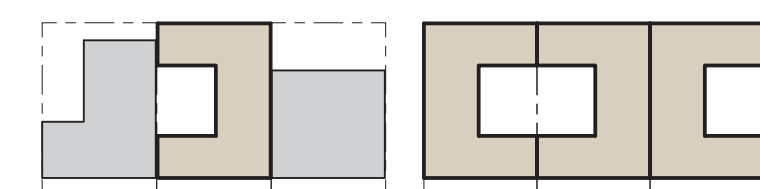
section



centralised usable outdoor space

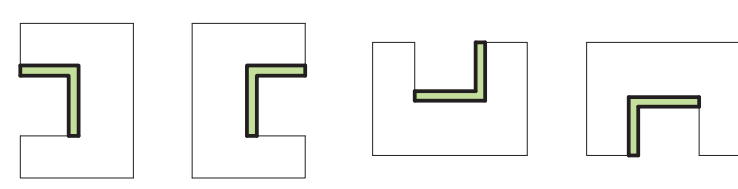


garage as part of courtyard space



inner city affordable infill suburban greenfield

contextual adaptability



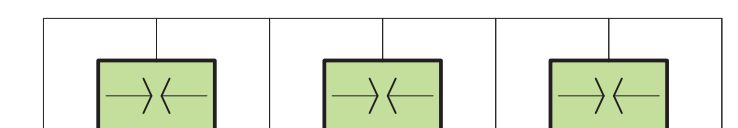
west east north south

orientational flexibility



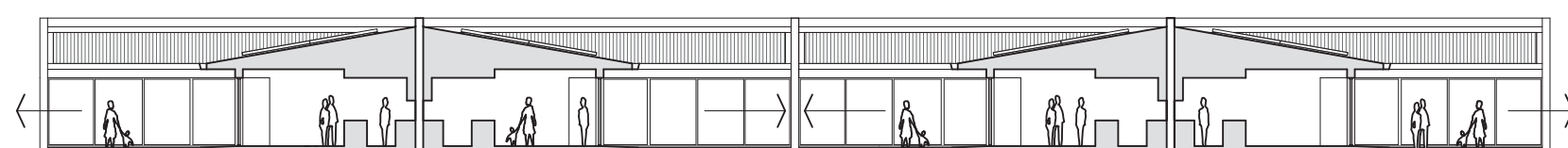
open end connected courtyards open end

spatial connectivity



young couple parents grand parents

generationl connectivity



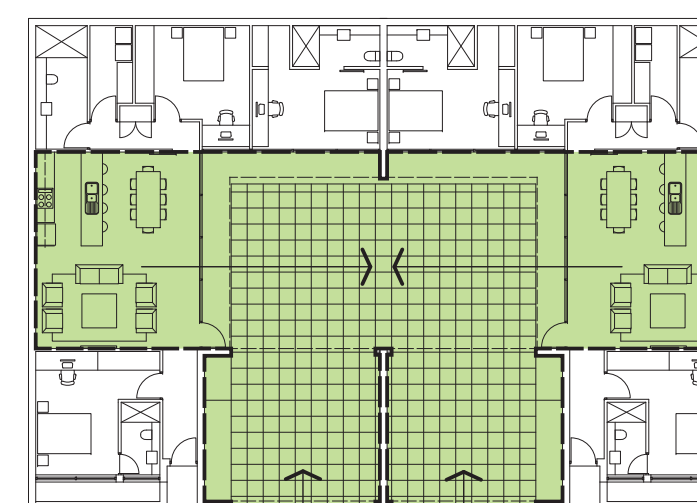
open corner connected courtyard houses open corner

connectability



family unit bedrooms independant bedrooms indoor living outdoor living shared space courtyard house

functional organisation



connected courtyard houses