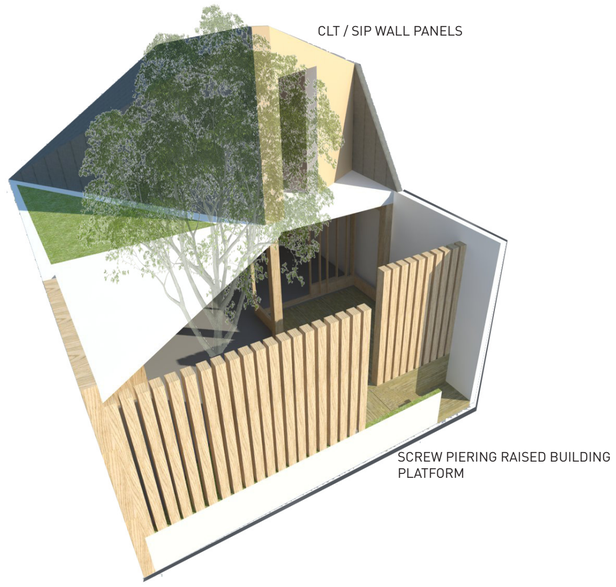


63.5 SITE	single storey						double storey					
	affordable			market			affordable			market		
	area	rate/sq.m	cost	area	rate/sq.m	cost	area	rate/sq.m	cost	area	rate/sq.m	cost
land area	63.5	1000	$63,500.00	63.5	1000	$63,500.00	63.5	1000	$63,500.00	127	1000	$127,000.00
house area	44	2400	$105,600.00	44	3500	$154,000.00	61	2400	$146,400.00	61	3500	$213,500.00
external area	13	300	$3,900.00	13	1200	$15,600.00	13	300	$3,900.00	13	1200	$15,600.00
TOTALS			$173,000.00			$233,100.00			$213,800.00			$356,100.00
EXTRAS OVER												
roof garden	7.5	300	$2,250.00	7.5	300	$2,250.00	7.5	300	$2,250.00	7.5	300	$2,250.00
solar roof sheeting	19.5	200	$3,900.00	19.5	200	$3,900.00	19.5	200	$3,900.00	19.5	200	$3,900.00
composting toilets	1	2975	$2,975.00	1	2975	$2,975.00	2	2975	$5,950.00	2	2975	$5,950.00
SUBTOTAL			$9,125.00			$9,125.00			$12,100.00			$12,100.00

Note: Rate differences between 'affordable' and 'market' reflect a higher level of all fittings, fixtures, window systems and internal finishes. Extras over are optionals.

Construction considerations

The primary structural system is based on a screw pile foundation supporting Cross Laminated Timber (CLT) units in combination with insulation and timber cladding, producing a Structural Insulation Panel (SIP).

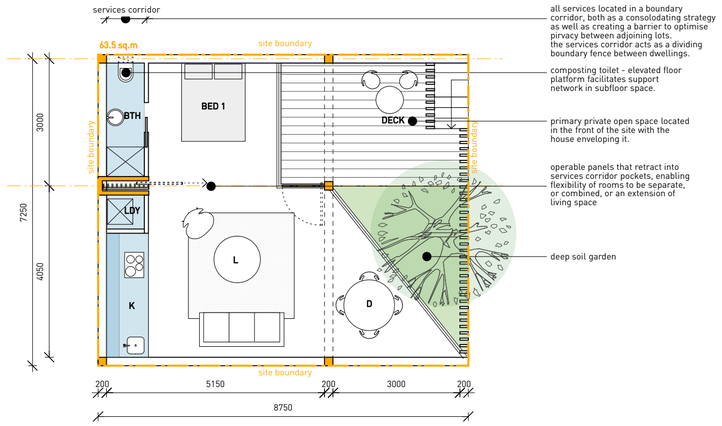
The screw pile foundation facilitates quick construction, enabling the foundations for a dwelling to be a in place in a single day. The speed and ease of this type of construction helps in cost reduction, it also inherently provides an elevated floor plane, enabling services to easily run within the subfloor space.

CLT in combination with insulation and external cladding is widely used in Europe and more recently in New Zealand. Production is imminent in Australia. The advantages of this type of construction is lower cost, reduced trade involvement, speed of construction, integrated structural and finished surface system, and more easily quantifiable from a costing perspective.

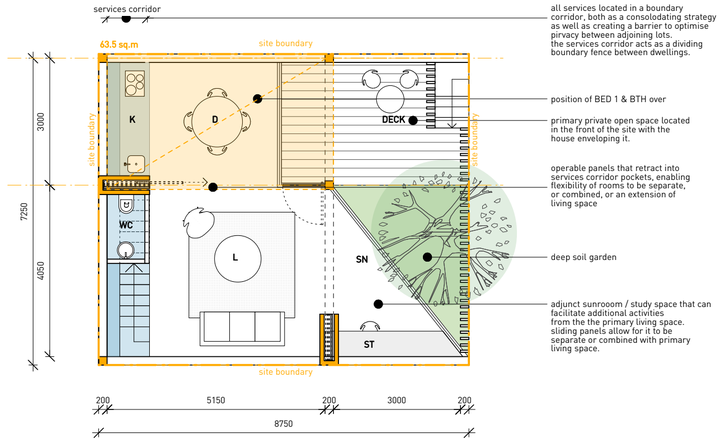
The street fronting roof planes are green roof segments. These planted roof areas replace the notion of front yard garden elevated to the roof plane. This becomes the primary catchment for water to be harnessed and utilised within the dwelling. The green roof also provides considerable thermal and acoustic insulation properties.

Other roofing is proposed as Colourbond BIPV (building integrated photovoltaic thermal). This innovative roofing material provides a thin PV film over a thermal roof design. The Colourbond BIPV roof system is currently installed on several trial homes with production launch awaiting.

The dwellings are designed to be autonomous without the imperative to be connected to waste, sewer and electrical supplies. At this stage this may fall within the 'market' options, additional outlays may preclude this from the 'affordable' option.



single- single storey



single- double storey

Rationale

The typologies proposed here acknowledge the desirability and validity of the autonomous single dwelling in both greenfield and infill development.

Fundamental to achieving this in a more compact model is shifting the notion of 'backyard', and redefining the distribution of 'private open space' on a site, something which current planning controls to a large extent restrict. This proposed typology explores a new pattern of density that offers landscape as integral to the internal experience of a house, and shifts the built form to the boundaries.
The project recognises the need for intimacy, it defends the notion of the autonomous 'house', but questions whether greater flexibility of site coverage within planning controls, could produce the same desirable qualities on smaller lots and thereby increase affordability. The suggested result of creating a tranquil inner focused house, is that the streets become the new 'backyard' as places of social interaction and diversity, enlivening, connecting and enriching neighbourhoods.

There is an historical and cultural expectation within Australia that 'primary open space' and the majority of landscaped areas should be located to the rear of dwellings. This is so engrained that it's prescribed within planning controls. The underlining argument of the investigation is that current planning codes are at odds with the need for higher density housing, more specifically, that imposing uniformity in setbacks and building envelope encourages repetition, and places significant obstacles on alternate patterns of site coverage. The investigation aims to consider alternate patterns of suburban development that both increase density and social connectivity outside of the current restrictions of the ACT Housing Code.

By consolidating open space rather than distributing it around the perimeter of a building the productivity of a site can be significantly increased. The proposal challenges planning codes that reinforce repetitive development with uniform setbacks.