

'Green over the grey'

The main objective of this scheme is to improve the quality of urban neighborhoods, within the framework of sustainable housing leading to successful and inclusive communities. This arrangement was created based on the idea of neighborly connection as a foundation to communities in which people want to live and work, today and tomorrow.

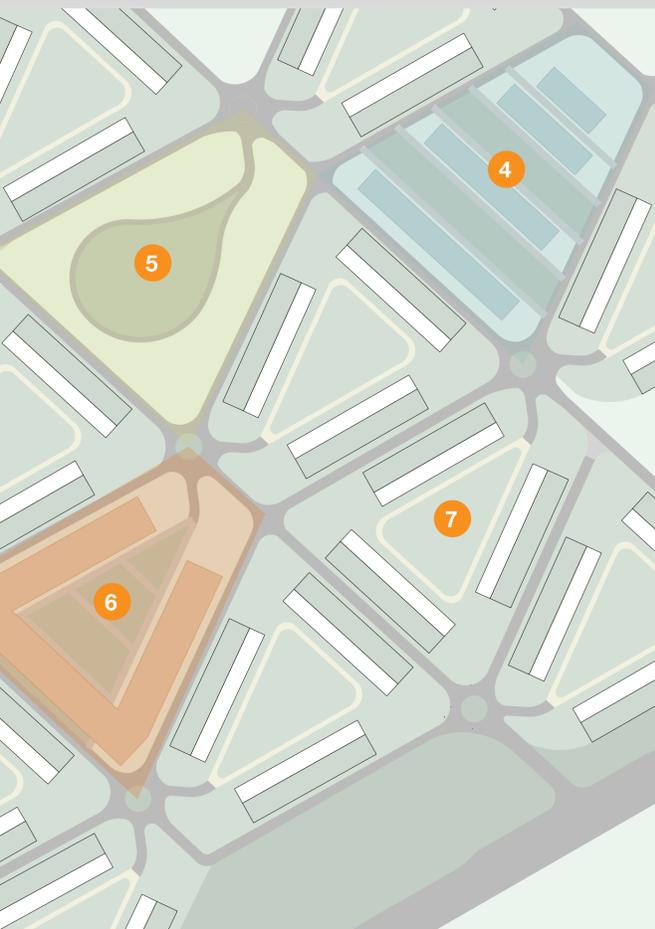
Our proposal consists of flexible multi-level terraces, expansive and lively semi-private community spaces and a safe, naturally lit and ventilated underground parking solution to accommodate the needs of a variety of homeowners.

The concept of 'Tomorrow's Townhouse' meets the higher levels of 'The Code for Sustainable Homes' and 'Lifetime Homes' to sustain a comfortable and eco-friendly way of living within urban environments. The key to the building design is to significantly minimise its carbon footprint, reduce its pollution production and lower non-renewable energy use. This is achieved by use of innovative technologies and biodiversity by native planting.

The design of "Tomorrow's Townhouse" is based on time-honored principles of simplicity and elegance inspired by classic 18th and 19th century terraced housing.

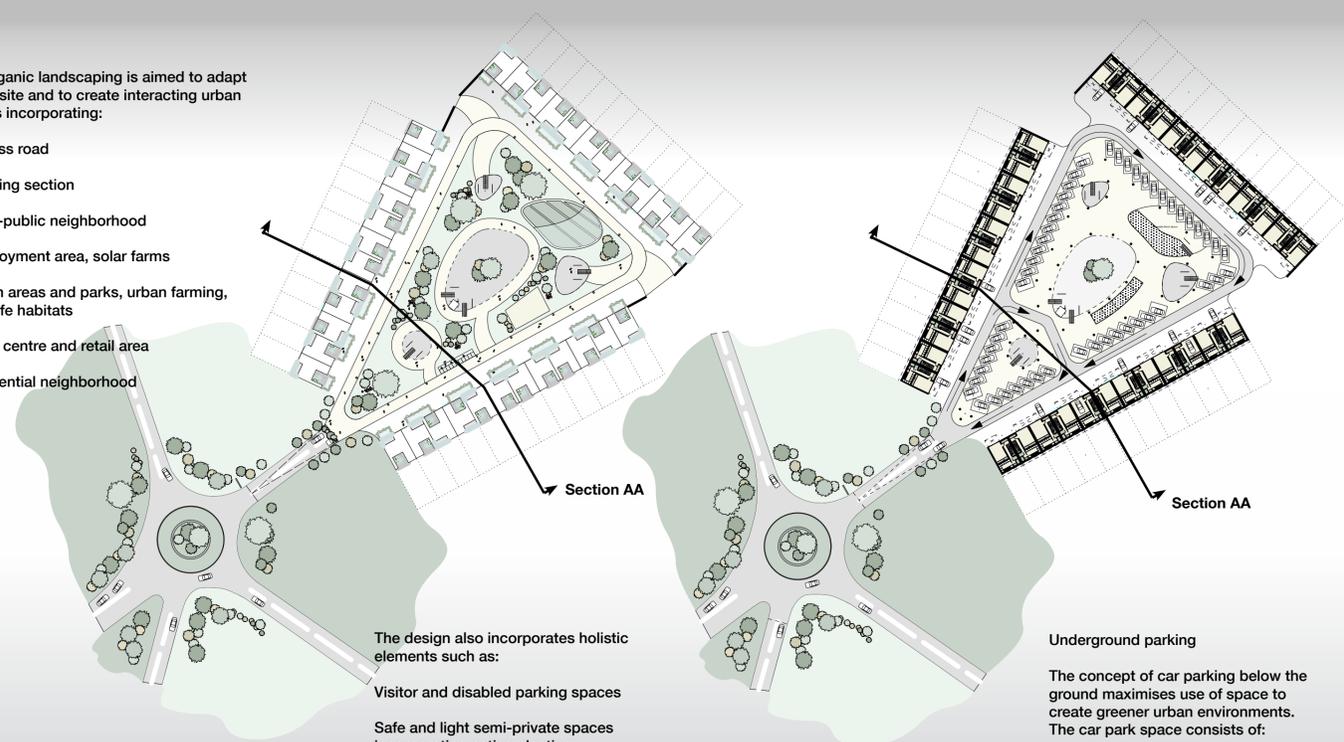


Section AA, not to scale
Masterplan, scale 1:2000



The organic landscaping is aimed to adapt to any site and to create interacting urban spaces incorporating:

- 1 access road
- 2 building section
- 3 semi-public neighborhood
- 4 employment area, solar farms
- 5 green areas and parks, urban farming, wildlife habitats
- 6 town centre and retail area
- 7 residential neighborhood



Overground Plan, scale 1:1000

Basement Plan, scale 1:1000

The design also incorporates holistic elements such as:

- Visitor and disabled parking spaces
- Safe and light semi-private spaces incorporating native planting
- Environmentally friendly natural ventilation and affective use of daylighting, with solar generated lighting during the night
- The design flexibility allows for above ground car parking if required

Underground parking

The concept of car parking below the ground maximises use of space to create greener urban environments. The car park space consists of:

- 1 One public approach to the car park
- 2 Individual approaches to the garages belonging to each dwelling
- 3 Additional parking spaces for the homeowner

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Level 5/6 of Code for Sustainable Homes

Energy and CO2 Emissions

Technology

Future Form Modular Building Systems

Building Fabric: High level of thermal insulation and airtightness

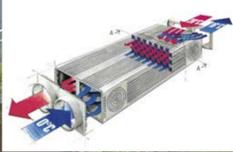
Groundwater Heat Pump

Photovoltaic (PV) array



Electric Car Charging Point

Mechanical Ventilation: heat recovery system



Controlling Solar Gain by louvres and internal blinds

Water Harvesting System

Drying Space

Cycle Storage

Home Office Facilities

Wireless Technology

Water Reduction

Low water shower and taps

Dual Flush WC

Bath 160 litres

Rainwater harvesting for washing machine, plant watering and WC flushing

A++ rated white goods

Security

Alarm System

Safe semi-private community spaces

Materials

Future Form Modular Building Systems

Bionictile Cladding



Locally sourced wooden louvres

Aluminium Frame triple glazed, gas filled windows

Management

Home User Guide

Construction Site Impacts

Health and Well Being

Lifetime Homes Standards

Daylight



Floor plans with underground garage and parking area, scale 1:100



Basement

Ground Floor

First Floor

Second Floor

Third Floor

- 1. Garage
- 2. Store/Work bench
- 3. Car Charger
- 4. Store
- 5. Bike Store
- 6. Future lift position
- 7. Water harvesting tank (Capacity 3m³)
- 8. Drying rack
- 9. Boiler
- 10. Hot water tank
- 11. Plant/store/laundry/drying
- 12. Living
- 13. WC + Shower
- 14. Dining
- 15. Kitchen
- 16. Study
- 17. Bedroom 2
- 18. WC + bath/ shower
- 19. Master bedroom
- 20. Ensuite WC/shower
- 21. Bedroom 3
- 22. Bedroom 4
- 23. Bedroom 5
- 24. Open space/snug/study
- 25. Balcony
- 26. External space
- 27. WC
- 28. Void above

Flexibility

Adaptability

Accessibility

DESIGN KEY POINTS

Reducing Pollution

Living Walls improve air quality locally by absorbing CO2 and emitting oxygen. With enough plants in the cities we could reduce the "urban heat island" as plants provide a very efficient 'cooling effect'.

Bionictile cladding destroys nitrous oxides in the air and converts them into fertiliser that can be used on the plants. This type of cladding is ideally suited to urban spaces.

Modularity of construction

Future Form Modular System is fast, safe and efficient. It provides eco-friendly, sustainable and low-maintenance structures with over 90% reduced waste during construction.

The structure of the building ensures easy construction, as well as the possibility of prefabrication of the interiors and facade.

Adaptable and Sustainable Living

The building was designed to accommodate users at various stages of their life. The house can effectively support its owner through their life, providing them with facilities they require at the appropriate time.

Sustainability of this scheme is to achieve level 5 or even 6 of the Code for Sustainable Homes.

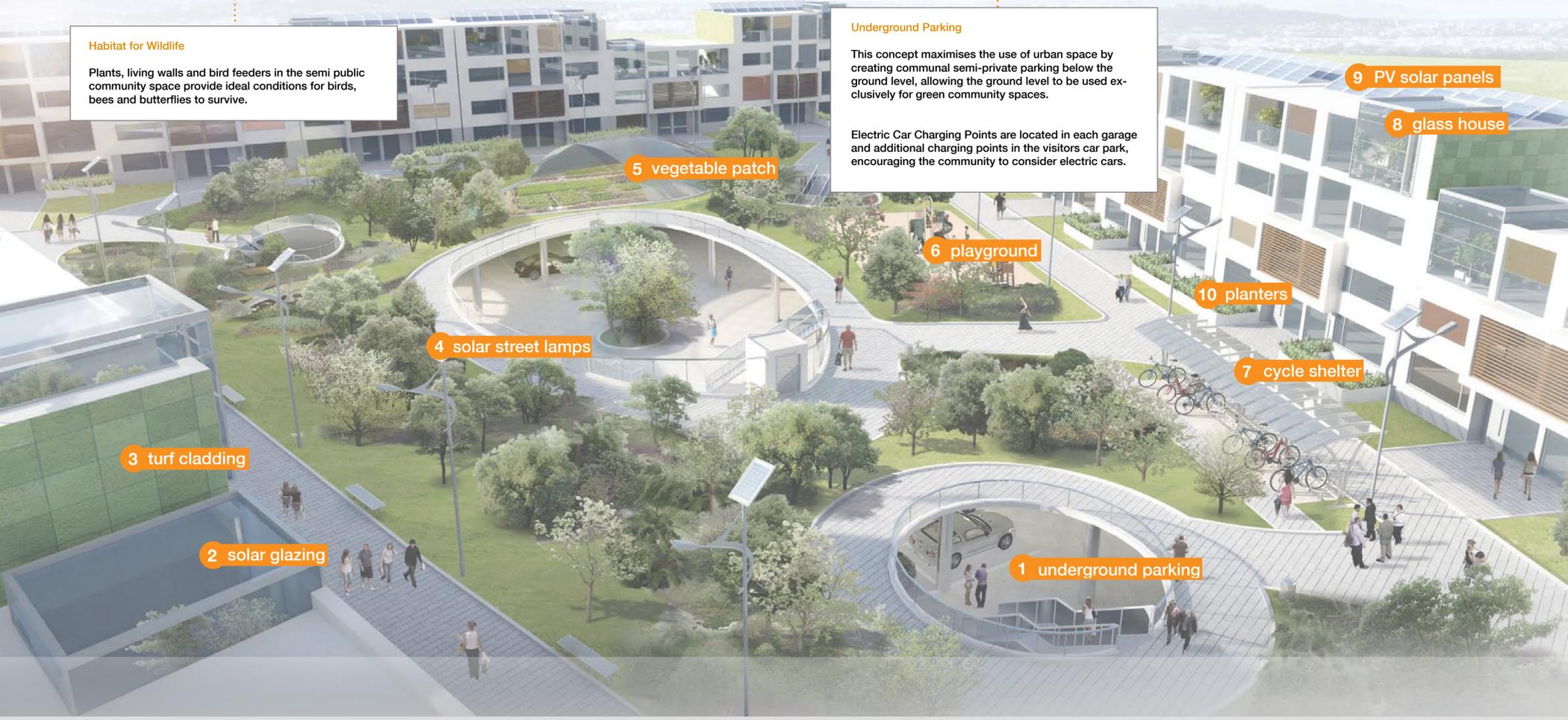
Habitat for Wildlife

Plants, living walls and bird feeders in the semi public community space provide ideal conditions for birds, bees and butterflies to survive.

Underground Parking

This concept maximises the use of urban space by creating communal semi-private parking below the ground level, allowing the ground level to be used exclusively for green community spaces.

Electric Car Charging Points are located in each garage and additional charging points in the visitors car park, encouraging the community to consider electric cars.



Front elevation, scale 1:200



Rear elevation, scale 1:200

Facade

The external cladding material is an innovative Bionictile technology which improves urban air quality by absorbing nitrous oxides produced by cars and other emissions generating sources and converting them into fertilizers for plants.

Cost effective, colored internal blinds controlling solar gain bring the pure white facade to life. Constant changing of arrangement of those blinds animate the buildings and creates individuality to each dwelling.

Optional floor plans with 4 storeys, scale 1:200



Lifetime Homes

- All approaches are level or gently sloping, including the car park access
- The entrances are well illuminated and have a level threshold, as well as 1200mm by 1200mm external landings
- All entrance doors have 900mm clear openings, as well as a 300mm nib to the leading edge of the door on the pull side
- All circulation within the dwelling and external spaces are accessible by wheelchair. The living spaces are capable of a clear turning circle of 1500mm to allow for easy wheelchair rotation.
- Sufficient space to accommodate additional bed provision at entrance level.
- Wheelchair accessible entrance level WC with drainage provisions for a shower to be fitted in the future.
- WC and bathroom walls are capable of firm fixing and support for adaptations such as grab rails
- 1000mm by 1500mm space allocated for the potential through-floor lift
- Route is available for a potential hoist from the larger first floor bedroom to the bathroom
- An accessible bathroom is provided with potential for simple adaptation to provide for different needs in the future