



TREELODGE @  
PUNGGOL

celebrating *life* in the heartlands





ROLLOVER TO VIEW MORE...



## ***Introduction***

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- Treelodge@Punggol is Singapore's first eco-precinct that has won the Green Mark Platinum award, Singapore's highest recognition for environmentally-friendly buildings. The estate has many green features/infrastructure that help residents to lead a very eco-friendly lifestyle.
- This housing project was launched in March 2007 and was completed in December 2010, where HDB gave out keys to proud new residents. HDB also hosted a welcome party for the residents in November 2011 to welcome new residents to the precinct and promote neighbour interaction.
- There are 7 blocks in this estate, with 712 units of 3 to 5-room flats.

# DO YOU KNOW?

**GREEN AND SUSTAINABLE PUBLIC HOUSING**

**LIFESTYLE FOR BUILDING A COHESIVE COMMUNITY**

**THE DESIGN CONCEPT FOR TREELODGE IS INSPIRED BY THE SYMBIOTIC RELATIONSHIP OF THE TREE TRUCK WITH FUNGI. TROPICAL GREEN IS BROUGHT UP FROM THE GROUND TO THE HIGHRISE RESIDENTIAL BLOCKS, CREATING LAYERS OF SHADED MICROCLIMATE FOR OUTDOOR COMMUNAL SPACES AS WELL AS ALLOWING THE RESIDENTS TO ENJOY THEIR OWN SLICE OF GREEN FROM THEIR INDIVIDUAL HOMES.**



## AWARDS:

- Chicago Athenaeum's Green GOOD Design Award 2010
- FuturArc Green Leadership Award 2011 "Residential Architecture - Multiple Houses"
- FIABCI Singapore Property Awards
- PS21 ExCEL Awards 2011: Best PS21 Project

(Certificate of Recognition) - Skydeck lab@TreeLodge

- IES Prestigious Achievement Awards 2012 CAPAM International Innovations Awards



## *Design*

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- The design of Treelodge enables eco living in five areas – greening, clean commuting, waste management, energy efficiency and water conservation.
- A number of features are designed to take advantage of natural ventilation and sunlight. Blocks here are built to align with the Northeast-Southwest wind direction that maximises natural cross-ventilation as well as natural lighting.
- White was chosen for the colour of block façade as it best reflects and least retains heat. The white paint on these wall exteriors are not only low VOC (volatile organic compounds) to reduce paint odour, they are also self cleansing and repels water and surface dirt. The next rainfall will “wash” the walls of dirt and grime.
- There are also planter boxes and green balconies at selected units for residents to grow more plants to green the façade and their own living environment.



## ***GREENing***

The provision of greenery to mitigate the Urban Heat Island effect and enhance the aesthetics within the precinct to create a conducive living environment.

- The roof of the car park, the Eco-Deck, is a landscaped activity centre with the Green Spine linking all precinct amenities together. The Eco-Deck consists of precinct amenities such as double deck precinct pavilion, playground, fitness corner and community garden.
- Enhanced greenery along the Green Spine not only reduces heat built-up in the precinct, but also minimises glare and provide better and greener visual relief for the units above.
- The special modular tray system (PEG) developed by HDB provides instant green to roof top with minimum maintenance.



## ***GREENing***

- Treelodge has a community garden to facilitate communal gardening activities for the residents. Residents of Treelodge can grow their own crops and share their harvests with each other.
- Composting bin is also provided for residents to place in organic waste from their home. After a few weeks under the right conditions, the waste will decompose completely and can be used as all-natural fertilizer for the organic garden.



## Clean Commute

Careful thoughts are put into planning and design of a well integrated public transport and cycling network within the town to provide greater connectivity and accessibility for residents to use clean transportation and to promote a healthy living lifestyle.

- The dual bicycle racks encourage more residents to cycle instead of drive for short distances.
- The 4 parking lots marked in green are meant for the cars used in car sharing scheme. This is to promote clean commuting and reduce carbon emission.
- The ceiling of the car park is much higher than other multi-storey car park to enhance the dissipation of heat and improve the ventilation and lighting in the car park.



## ***Reduce, Reuse, Recycle***

Residents are encouraged to adopt 3Rs (Reduce, Reuse, Recycle) to help cut down material wastages and hence, make a difference to our environment.

- To promote recycling efforts, Treelodge residents are provided with two rubbish chutes - one for normal refuse and the other for the collection of recyclable items (Centralised Recyclable Chute).
- The playground is 100% made of recycled materials and is as durable as a playground made of new materials.



MOTION SENSOR

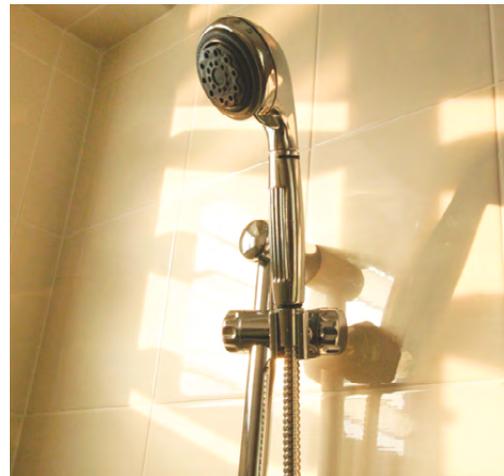
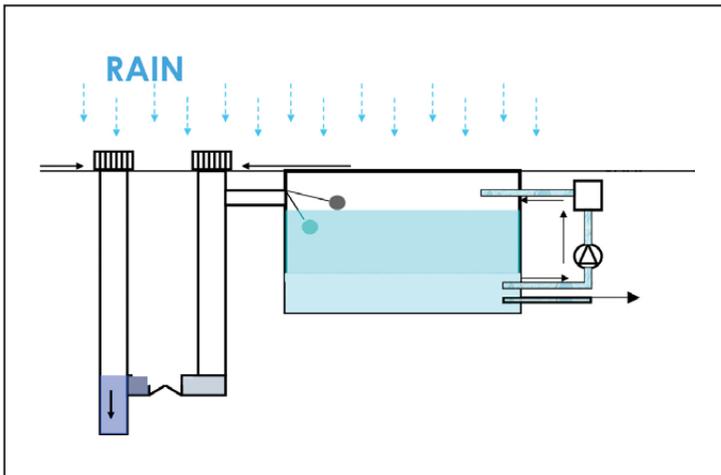
## ***Energy Efficiency***

Energy efficient technologies are adopted to optimise energy usage and reduce maintenance cost in the estates. In addition, the use of clean and renewable energy sources is explored to reduce the reliance on fossil fuels to achieve environmental sustainability.

- All blocks in Treelodge have solar panels at the roof top. The electricity is tapped for powering common facilities such as corridor lighting and podium carpark.
- Energy efficient lightings such as LED Lighting are used along common corridors and podium carpark to reduce energy consumption.
- Energy saving light fittings are used along common corridors and podium carpark. This not only reduces energy consumption but also optimizes maintenance as they have longer life spans.
- Motion sensors are also introduced at the staircases to provide on-demand lighting. This reduces electricity consumption.



**Water  
Efficiency  
Labelling  
Scheme**



## ***Water Conservation***

Rainwater Harvesting System, Integrated Wash Basin-Toilet Pedestals and water devices rated “Very Good” in PUB’s Water Efficient Labelling Scheme (WELs) are installed to conserve more water.

- Rainwater Harvesting System to collect and store rainwater for common corridor washing and watering of plants.
- Integrated Wash Basin - Toilet Pedestal to recycle water used for hand-washing for the next toilet flushing.
- Water - saving fittings to optimise water usage within the flats.