

# Enabling Village: An Inclusive Enclave in the Heartlands

Text by WOHA Architects Pte Ltd and Salad Dressing  
Images as credited

## Project Credits

Location 20 Lengkok Bahru,  
Singapore 159053 Developer  
SG Enable Ltd. Completion Date  
November 2015 Architect WOHA  
Architects Pte Ltd Civil & Structural  
Engineer Ronnie & Koh Consultants  
Pte Ltd Landscape Consultant Salad  
Dressing Mechanical & Electrical  
Engineer AE&T Consultants Pte Ltd  
Quantity Surveyor Davis Langdon KPK  
(Singapore) Pte Ltd Main Contractor  
Sunray Woodcraft Construction Pte Ltd  
Site Area 31,605.7m<sup>2</sup> Awards  
16th SIA Architectural Design Award  
2016 – Design Award, President  
Design Award – Project Award,  
LEAF award – Outstanding Project,  
Universal Design Mark Award –  
Platinum Award





## The Masterplan re-imagines the Enabling Village as a garden destination.

1. Nest block and garden cabanas visually anchors the biopond. (Photo: Patrick Bingham-Hall).

2. Garden cabana extends from corridor as outdoor meeting room surrounded by nature. (Photo: Patrick Bingham-Hall).

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Located in Redhill, the project is a demonstration of heartland rejuvenation and community building, through Masterplanning and the adaptive reuse of Bukit Merah Vocational Institute built in the 1970s. The property was re-purposed as the Enabling Village—an inclusive space that integrates education, work, training, retail and lifestyle, connecting people with disabilities and the society.

Before re-development, the property did not contribute to the neighbourhood. The Masterplan re-imagines the Enabling Village as a park/garden destination, and is designed as an integral part of the neighbourhood's pedestrian network.

The design scope includes architecture, interior design, signage, lighting, art and landscaping to deliver a holistically integrated environment. The buildings are re-named as "Nest", "Playground", "Village Green", "Hive", "Hub" and "Academy"—based on their characters and programmes. Ramps, landings and lifts seamlessly connect these.

The new Nest building is anchored at the main pond and serves as a beacon, drawing pedestrian flow through the new link ways. The architectural expression and finishes are continued at the existing buildings as facade, canopies and surfaces. A timber terrace is laid

over the courtyard at the Playground, stepping down as an amphitheatre with integrated ramps. The terrace continues under and past the building as a balcony overlooking activity islands and as a garden trail connecting to the adjacent housing precinct. Pre-cast concrete pipes are inserted below the amphitheatre as resting nooks. The open space between the Village Green and the Hive is reactivated as a garden yard with re-purposed sea containers as bridges, follies and meeting rooms loosely scattered with recycled oil drum planters. "Upcycling" continues as interior design features in the Art Faculty and Hive.

Wayfinding is developed as a series of touch-points at entries and strategic junctions to assist with orientation and navigation. A feature wall with coloured graphics identifies each building. External lighting is designed to give a serene park ambience. Building facades, drop-offs, cabanas and walkways are accentuated as beacons and connectors in the park. Art is integrated into the garden with building-scale murals, incorporating artwork by autistic artists.

The Enabling Village champions sustainability and sociability by promoting the learning, bonding and healing of people with varying abilities within a biophilic environment. This creates an inclusive space that enables and values everyone.





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Text by Salad Dressing

Enabling Village as a site has the advantage of being located in an area with an abundance of natural earth; this is quite rare in Singapore’s landscape industry. The extent of landscaped areas covers a total of 14,656m<sup>2</sup>. Several vibrant gardens and buildings are orientated around a total of 4 ponds, and water becomes the catalyst in sustaining the landscape. Integrating water and land in this way stitches together the existing buildings, transforming what was previously an introspective premise into a community park.

The ponds are physically detached but have a visual link with each other across the site and between buildings. They showcase a working natural cleansing system. There is a small pump that allows minimal water movements. No water filters are used in the whole project! Enabling Village achieves clean and clear water through its rigorous phytoremediation system. Marginal and aquatic plants increase the quality of the water by removing toxins and contaminants. Other than a single small pump to create small movements in the waters, the ponds are able to completely take care of themselves and the fish they harbour.

Within the gardens themselves, the main aim is to bio-diversify the busy urban condition. Here there is a huge collection of rare species that may be discovered. *Garcenia nervosa* that has broad handsome leaves, *Alstonia spatulata* that thrives in the water, *Fragaea auriculata*, a 9m tall *Mesua ferrea*, *Syzygium cumini*, *Scaphium lychnophora*, *Barringtonia asitica*, *Barringtonia acutangula*, *Dolichandrone serrulata*, etc. all can be found here.

3. Roof planting creates a visual relief when viewed from surrounding building and softens the garden structures and blend seamlessly into the greenery and biopond. (Photo: Patrick Bingham-Hall).

4. Nest block floats over the tree canopy with timber verandah and garden cabana on ground engaging with the greenery and biopond. (Photo: Patrick Bingham-Hall).

Enabling Village also serves as a refuge for the collection of native plants. Of the 68 tree species on site, 51 are native to the region. Hardwood species that are from the *Dipterocarpaceae* family have been introduced here. Similarly, accents like Tiger Orchids (*Grammatophyllum speciosum*) – the largest orchid in the world, and climbers like *Rhaphidophora spp.* have grown well in this garden. The retention of 60 existing trees provides a sense of familiarity is for animals.

The vast assortment of plant species each attracts various birds and insects that have made Enabling Village their home. Hornbills occasionally visit the site, as well as kingfishers, beautiful butterflies and damselflies. It has become a niche for wildlife, but also for humans – we have promoted interaction with the flora and fauna, which creates a biophilic environment. This can heal and strengthen social bonds between people experiencing the site, as well as being able to rejuvenate one’s sense of belonging to nature. One can stroll through the peaceful green corridors and experience a series of framed views of the landscape. A noticeable change in ambiance, in the colours of the plants, in the textures and size of the leaves can be observed along this journey.

The intention is to be inclusive, in terms of accessibility and biodiversity, and to transform this cluster of former training institute blocks into a site of public value. By keeping the existing trees, we formed new spaces beneath their canopies, and transformed their surroundings into common spaces. For example a customized playground was built to interact with a collection of trumpet trees. A veranda with seating, exercise islands and a walking trail were designed under the shade of mature Saga trees.

Enabling Village is not seen as purely a destination, but rather it is plugged into the neighbourhood network with many connections and meeting points within a park setting.













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### Greenery Provision

Enabling Village achieved a 78% usage of native trees from our region. We explored an array of native habitats of our lands, and the inherent characteristics of the plants found within. For example:

- The hardness of wood is often exploited as a construction material for civilization. Hence, an ironwood is highly valuable for humans, but it is also extremely vital to a balanced natural ecosystem of tropical rainforests. We planted a few of these slow growing giants in our landscape as refugees from the forests.
- Fauna boosters that have animals act as the pollinators, to help plants naturally multiply themselves, as well as to bring a variety of colours to our landscapes. The animals are part of the composition of a living and breathing space. The gardens will be part of the green belt that is connecting a number of dispersed habitats for these animals.
- Some of the plants have a propensity to act as a carbon deposit reservoir from the atmosphere, specifically the trees, which can store carbon their whole lives.
- There are some parts of the plants, which secrete minute compounds into the rhizosphere, which serve different functions, such as feeding the soil with rich nutrition and balancing the nitrogen in the soil. This will strategically support our vision to enhance a variety of species in the habitat.


We are recomposing our knowledge of nature as parts of a garden.



### Landscape Management

Four bio-ponds serve as holding tanks to collect the rainwater. Through an understanding of plants used in this project, we have been able to encourage phytoremediation in order to cleanse the water. As a result we do not require filters in the system. Native fish and dragonflies are the mosquito larva hunters that eliminate the threat of mosquitos. In terms of management, the ponds service and cleanse themselves quite substantially.

The trees around the bio-ponds will trap the moisture in the air and create a microclimate that helps the plants to grow in the garden. Leaf litter from the trees are part of the system, they are the fertilizer for the plants and also trap moisture in the land.

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5. Verandah with a lattice pergola overlooks the bio-pond, serving as a garden pre-function area to Hub. (Photo: Patrick Bingham-Hall).

6. Re-purposed containers are designed as follies and meeting rooms surrounded by an edible garden and planters in recycled oil drums. (Photo: Patrick Bingham-Hall).

7. The green roof of garden cabanas and surrounding landscapes form a verdant backdrop to the office's living room at Nest block. (Photo: Edward Hendricks).