



PHOTO: SAMWOH CORPORATION

# Recycling with concrete

Samwoh Corporation's efforts in building with recycled concrete get rewarded with a Green Mark (Platinum) award

by jammie zhou

IT IS easy to see why Samwoh Corporation attained the highest level in the Building and Construction Authority's Green Mark certification – a Platinum award – for its Eco-Green Building.

The ambitious and forward-looking building project is the first in this region to be constructed using up to 100 per cent of recycled concrete aggregate (RCA). The material is derived from construction and demolition waste.

"Prior to the construction of the building, we carried out extensive research works and laboratory tests in our own well-equipped R&D centre to demonstrate that the performance (strength and durability) of the recycled concrete is comparable to that of normal concrete," says Dr Ho Nyok Yong, Samwoh's technical director.

"The study was carried out jointly with BCA and Nanyang Technological University and was awarded the MND research fund. After about one year of

study and deliberation, including two years of an extensive study on a similar topic way before this project, we were given the green light to commence with the construction of the building."

Commenting on the completed project, Dr Ho says: "It has brought the green construction technology to another new height and opened up a new chapter in Singapore's sustainable development."

Dr Ho adds that the building also uses many other recycled products for its architectural finishes and external works such as partition walls, driveways, road kerbs, drains, doors, ceiling board, and carpets.

"Other than the use of recycled materials, the building is also equipped with energy and water efficient features and fittings which include the lightings and air-condition systems. We also maximise natural ventilation for common areas such as stairways and corridors, use of perforated cladding system and sun control films to reduce the external heat transmittance into the building."

**“We hope our effort will encourage Singaporeans to be more environmentally conscious and embrace sustainable activities to make it part of our life.”**

Dr Ho Nyok Yong, Samwoh's technical director

Founded in 1975, Samwoh has grown to become a leading integrated construction company and green materials supplier. It has set up recycling facilities to process construction and demolition waste, asphalt waste for construction applications as well as other green products that can help to reduce waste generation, says Dr Ho.

With the successful Eco-Green Building project, Dr Ho says Samwoh hopes that "construction and demolition waste can be used in future structural buildings, which will reduce our

dependence on natural aggregate and thereby, contribute towards our nation's goal to achieve sustainability".

"The project has also demonstrated the company's contribution in sustainable development as well as our commitment towards corporate social responsibility," adds Dr Ho.

On Samwoh's Green Mark (Platinum) win, Dr Ho says: "The BCA's Green Mark award, especially attained the highest accolade – the platinum award – will enhance our corporate image and recognise our commitment and efforts as one of the leaders in promoting sustainable development and green businesses in Singapore."

Samwoh's efforts in the green movement have been recognised by various parties with research grants as well as awards and accolades over the years. This includes the Minister's Innovation Award and the Star Award in the National Innovation Quality Circles Convention. Recently, Samwoh was also awarded the inaugural Outstanding Sustainability Award 2010, which was co-organised by

the Singapore Business Federation and supported by International Enterprise Singapore, Spring Singapore and KPMG.

Samwoh also wants to reach out to the public with its Samwoh Eco-Green Park (above), which houses the Eco-Green Building, an asphalt-recycling plant and a green concrete plant.

"The park is open to the public for educational visits by appointment," says Dr Ho.

"We hope our effort will encourage Singaporeans to be more environmentally conscious and embrace sustainable activities to make it part of our life."

Dr Ho says Samwoh will continue to look for innovative and creative green business encompassing the "reduce, reuse and recycle" principles. "We are planning to invest in more R&D facilities and to explore other potential green businesses. In addition, with the growing interest towards reducing carbon emissions in the world, we will also expand our green business to other countries such as China and India."



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Lian Soon Construction is proud and honoured to be the main contractor partner with CPG Consultant Pte Ltd for Tampines Primary School which won the Singapore's first public school BCA Universal Design Gold Award.

Tampines Primary School won the award as the design are user-friendly that address the needs of all age group and with different abilities. It provides an integrated system to cater to students and public needs.

A few key features of the project

- pro-family facilities such as family parking lot and room for lactating mothers (for staff) and diaper changing provision
- shower room have flip down seats for users with diverse abilities
- tactile floor markings are cognitively placed along external routes as well as accessible drop-off point



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