The Construction 21 Best Practice Awards (C21 BPA) was launched in May 2000 to recognise companies and organisations which demonstrate leadership, innovation and sustained efforts in adopting best practices that exemplify the paradigm shift and strategic changes recommended in the C21 Report. This is to help develop a more progressive construction industry, which is able to realise its vision for the 21st century: To be a World Class Builder in the Knowledge Age.

Award Winner: Tiong Seng Contractors (Pte) Ltd

Organisation Profile
Established in 1959, Tiong Seng Contractors (Pte) Ltd is a leading Singapore contractor registered with BCA, under the highest financial grade of A1 for both general building and civil engineering categories. Besides Singapore, the company also has a presence in China, India, Laos and Papua New Guinea.

Category: Improving Industry Practices & Techniques
Description: Implementing Waste Water Recycling System for Silt Water Management and Recycling for Construction Usage

Best Practice
As part of its corporate culture of continuous improvement and the need for proper silt water management, Tiong Seng has pioneered the construction industry’s first mobile water recycling system. The system uses Ultra-Filtration Membrane Technology to treat silt water and reduce the total suspended solids contents to well below the authority requirements. The recycled water is used for construction purposes.

Impact on Industry
The practice has helped the company maintain good environmental record in earth control measures and ensured that drains and waterways around the construction sites remain clean. It has also helped to conserve water resources and reduced the dependency of potable water supplied by the Public Utilities Board. The water usage by Tiong Seng’s construction sites has reduced substantially since the implementation of the water recycling system.

The practice can be replicated by other contractors as the water recycling system implemented on construction site is mobile, simple to operate, and can be easily configured within a shorter time. The mobile water recycling system was first introduced in Parc Emily Condominium and subsequently to other projects such as RiverEdge Condominium, The Arc Condominium and The Knolis at Sentosa.

The practice will raise the level of environmental awareness among contractors in the construction industry on the need to conserve water and practise good earth control measures to reduce water pollution.
Best Practice Awards

Merit Winner: YKK AP Singapore Pte Ltd

Organisation Profile
A member of YKK group of companies worldwide, YKK AP Singapore Pte Ltd was incorporated in 1976 with core businesses in building facade elements, including facade glass and cladding wall paneling, architectural features, trellis etc. The company is currently registered with BCA under the highest financial grade of L6 in the curtain walls, windows and doors category.

Category:
Improving Industry Practices & Techniques

Description:
Application of Top-down Facade Re-cladding Method with an Inverted Drainage System for Improved Performance in Retrofitting Projects

Best Practice
The top-down facade re-cladding method with built-in inverted internal drainage, introduced by YKK AP, is the first of its kind in Singapore. The practice has been successfully implemented at High Street Centre, an existing 30-storey building. The company is currently implementing a similar concept in another project - Singapore Power Building at Somerset Road.

The top-down sequence is made possible through innovative modification of the conventional unitised curtain wall stack joint, and incorporation of an inverted splice plate.

The advantages of this method include shorter construction period, lower construction cost and safer working environment. It allows minimum disturbances to existing tenants of the buildings under retrofitting, as they are able to resume full use of internal space in a shorter timeframe. It also eliminates the need of providing extensive temporary protection for weather tightness to the premises during the construction phase.

Impact on Industry
The top-down facade re-cladding method has not only benefited the company, but also the building owners, tenants and the sub-contractors. There is potential for wider application in future retrofitting projects.