



For the purpose of sustainable development, we have been striving for continual improvement in the protection of environment by attaining objectives, reaching targets and achieving merits.

Environmental Performance

Awards

2013 Hong Kong Flower Show – The Highways Department's Display Booth

The Highways Department was honoured to receive the 'Grand Award for Outstanding Exhibit (Landscape Display)'.

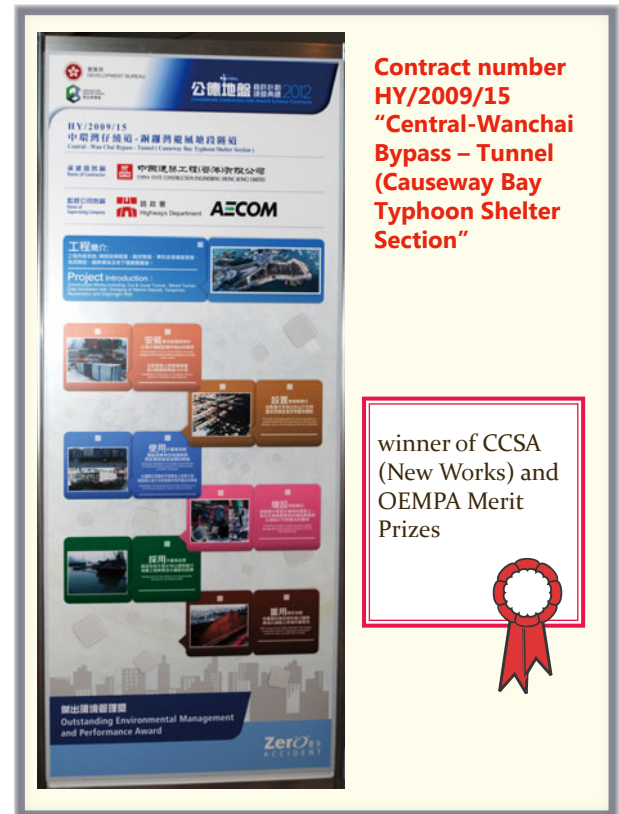
The theme of the Hong Kong Flower Show 2013 was the "Kaleidoscope of Spring" and the theme flower was "*Dendrobium*". The design concept aimed to combine the Highways Department's mega infrastructure project namely, the Hong Kong-Zhuhai-Macao Bridge and the geographical location of the Pearl River Delta, in order to create an amazing and colorful "Kaleidoscopes of Spring".

The entire design consisted of three "Kaleidoscopes", representing Hong Kong, Zhuhai and Macao. Vertical planes of each "Kaleidoscope" constituted of plant materials and PVC mirrors, which defined three different cellular spaces. Changing ripples spreading from the center of the "Kaleidoscopes" not only represented the "time lines" required for traveling between cities, but also created an interesting paving pattern in the display booth. The optical principle of the "Kaleidoscopes" was used to link up the three "cities" by using one of their vertical planes with PVC mirrors placed at three equilateral sides of the central courtyard. The "Kaleidoscopes" ever-changing patterns and the vivid color of the "*Dendrobium*", would give us the lively atmosphere and happiness during the visit of the "Kaleidoscope of Spring" and our display booth.



Outstanding Environmental Management and Performance Award (OEMPA) and Considerate Contractors Site Award (CCSA)

The Development Bureau and Construction Industry Council jointly organized the Considerate Contractors Site Award Scheme to recognize construction sites with good site safety and environmental performance and considerate attitude towards the neighbourhood and the public. In 2013, our construction sites received six CCSA and four OEMPA awards, including two Gold, one Silver, one Bronze and two Merit Prizes from CCSA, and one Silver and three Merit Prizes from OEMPA.



Environmental Objectives and Targets

Achievement in 2013

Objectives	Target	Achievement
Reducing the energy consumption in public lighting	To install dimmers for the lighting system at footbridges	Target achieved; Dimmers were successfully installed for the lighting system of 15 nos. of footbridges
Saving 5% electricity consumption in HMTGO by 2014 (Comparing with the baseline electricity consumption in 2009)	As the target for 2012 has not been achieved, we shall continue to work with Government Property Agency and Architectural Services Department for: (a) Installing 10 sets of motion sensors in carparking area; and (b) Replacing 60 nos. of fluorescent lighting by dual lighting fittings with motion sensors in staircases.	(a) Installation work of motion sensors light in carparking space of HMTGO will be carried out by Arch SD's contractor from Feb to Jun 2014. (b) The work schedule for the replacement work is being processed by Arch SD.
Adopting measures in water conservation	To continue installing dual-flush toilets, automatic low flow water taps and sensor type urinals in the toilets of HMTGO when they are refurbished.	Toilet refurbishment works were carried out at 6/F toilet in December 2013. It would be completed in late January 2014.
Improving indoor air quality	To continue upkeeping the indoor air quality at or above the level of "Good Class" in HMTGO.	Target achieved. Air measurement was conducted by the Electrical and Mechanical Services Department in 2013. HMTGO was awarded the Indoor Air Quality Certificate (Good Class).
Carrying out carbon audit for tracking the effectiveness of Green House Gas (GHG) reduction	To continue carrying out carbon audit twice per year for tracking the effectiveness of GHG reduction.	Target achieved. Two carbon audits were arranged by the Building Management Office of HMTGO.
Encouraging the use of recycled paper in the Department	To raise the percentage usage of recycled paper not less than 96.5% of the total consumption.	Target achieved. 18,322 reams of paper were consumed in the year of which all (100%) were recycled paper.
Setting target in reducing photocopying paper consumption	To maintain the consumption of photocopying paper at a level not exceeding the consumption level of 2012.	Target achieved. 18,322 reams of paper were consumed in the year. Comparing with 19,029 reams of paper consumed in 2012, a saving of 3.72% in paper consumption was achieved.
Promoting the wider use of recycled materials	To introduce the use of the following construction materials/ methods in more maintenance contracts progressively; (a) Reclaimed Asphalt Pavement (RAP) in bituminous pavement construction; and (b) Thermal Patcher for appropriate scale resurfacing.	(a) Target Achieved: Use of RAP has been specified in two new road maintenance contracts scheduled to commence in April 2014. (b) Target Achieved: Use of Thermal Patcher for appropriate scale resurfacing has been specified in two new road maintenance contracts scheduled to commence in April 2014.
Planting trees and shrubs	To plant 156,000 trees/shrubs in capital works contracts of MWPMO and HZMB-HKPMO	Target achieved; 424,318 trees/shrubs have been planted.
Adopting site office equipment with energy saving label	To use site office equipment with energy saving labels in all new capital works contracts of MWPMO and HZMB-HKPMO	Target achieved; All 6 new works contracts tendered in 2013 have adopted site office equipment with energy saving label.
Procuring environmentally friendly contract vehicle	To procure environmentally friendly private car model approved by EPD for saloon type contract vehicle in all new capital works contracts of MWPMO and HZMB-HKPMO	Target achieved; All 6 new works contracts tendered in 2013 have procured environmentally friendly contract vehicles.
Reducing dust emission	To include a particular specification clause for dust suppression in all new capital works contracts of MWPMO and HZMB-HKPMO	Target achieved; All 6 new works contracts tendered in 2013 have included the dust suppression particular specification clause.
Adopting energy efficient features and renewable energy technologies	(a) To adopt energy efficient features and renewable energy technologies in all capital works projects of MWPMO and HZMB-HKPMO with consultancy agreement tendered during the calendar year of 2013; and (b) To conduct carbon audit to assess the carbon footprint of the road projects of MWPMO and HZMB-HKPMO during feasibility and design stages with a view to providing recommendations for appropriate compensatory / mitigation measures.	Target achieved; All 5 new consultancy agreements tendered in 2013 have included relevant requirements for the consultants to produce a separate study report on both items.
Green Roof and Green Wall at the Engineer's Site Office	To include a particular specification clause for construction of Green Roof and Green Wall at the Engineer's Site Office which is exposed in sunlight in selected capital works contracts of MWPMO and HZMB-HKPMO tendered during the calendar year of 2013.	Target achieved; All 6 new works contracts of MWPMO and HZMB-HKPMO tendered in 2013 have included relevant particular specification clause for construction of green wall and green roof.

Looking Ahead for 2014

Objectives	Target
Reducing the energy consumption in public lighting	To continue installation of dimmers for the lighting system at footbridges
Saving 5% electricity consumption in HMTGO by 2014 (Comparing with the baseline electricity consumption in 2009)	As the target for 2013 has only been partially achieved, we shall continue to work with Government Property Agency and Architectural Services Department for : Replacing 60 nos. of fluorescent lighting by dual lighting fittings with motion sensors in staircases of HMTGO
Adopting measures in water conservation	To continue installing dual-flush toilets, automatic low flow water taps and sensor type urinals in the toilets of HMTGO when they are refurbished.
Improving indoor air quality	To continue upkeeping the indoor air quality at or above the level of "Good Class" in HMTGO.
Carrying out carbon audit for tracking the effectiveness of Green House Gas (GHG) reduction	To continue carrying out carbon audit twice per year for tracking the effectiveness of GHG reduction.
Encouraging the use of recycled paper in the Department	To maintain the percentage usage of recycled paper not less than 96.5% of the total consumption.
Setting target in reducing photocopying paper consumption	To maintain the consumption of photocopying paper at a level not exceeding the consumption level of 2013.
Promoting the wider use of recycled materials	To introduce the use of the following construction materials/methods in more maintenance contracts progressively: (a) RAP in bituminous pavement construction; and (b) Thermal Patcher for appropriate scale resurfacing.
Planting trees and shrubs	To plant 625,000 trees/shrubs in capital works contracts of MWPMO and HZMB-HKPMO.
Adopting site office equipment with energy saving label	To include particular specification clauses for using site office equipment with energy saving labels and water consuming appliances with WSD water efficiency labels in all Engineer's Site Office of capital works contracts of MWPMO and HZMB-HKPMO to be tendered during the calendar year of 2014.
Procuring environmentally friendly contract vehicle	To procure environmentally friendly private car model approved by EPD for saloon type contract vehicle in all capital works contracts of MWPMO and HZMB-HKPMO to be tendered during the calendar year of 2014.
Reducing dust emission	To include a particular specification clause for dust emission reduction in all capital works contracts of MWPMO and HZMB-HKPMO to be tendered during the calendar year of 2014.
Adopting energy efficient features and renewable energy technologies	In all capital works consultancy agreements of MWPMO and HZMB-HKPMO tendered during the calendar year of 2014 to include requirements for the consultants : (i) to identify opportunities to utilize energy efficient features and renewable energy technologies; and (ii) to assess carbon footprint of the road work project during design stage and to provide recommendations on measures to reducing carbon footprint.
Green Roof and Green Wall at the Engineer's Site Office	To include a particular specification clause for construction of green roof and green wall in all capital works contracts of MWPMO and HZMB-HKPMO to be tendered during the calendar year of 2014 with Engineer's Site Office exposed in sunlight.

Hoping that this report could provide you with a glimpse of our dedication and efforts in environmental protection. Should you have any comment to our work, please share with us your views through our homepage on the Internet (address: <http://www.hyd.gov.hk>). Thank you for reading this publication.