

Sustainability Report 2013

Keep Going Green

20

Public Awards
Received for
Our Projects

15

Buildings
for
BEAM Label



Avoided Emission of
6,710
Tonnes CO₂-e
= Plant 172,000 Trees



25

Green Roof
Completed

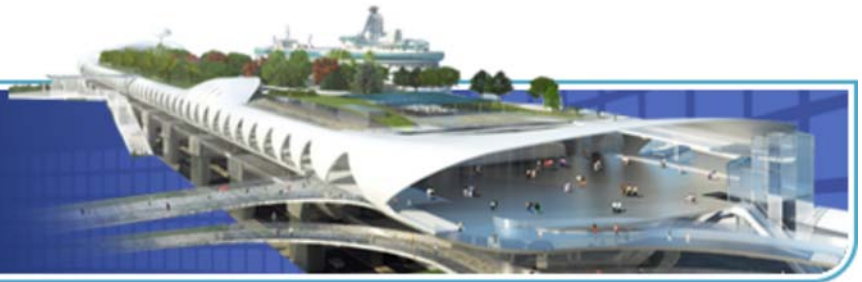


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Message from the Director



Dear Stakeholders,

Welcome to our Sustainability Report which highlights our sustainability initiatives and achievements in 2012. This year marks the tenth anniversary in our sustainability reporting journey. With the theme of "Keep Going Green", the report presents our continuous efforts to strive for green while meeting our common needs.



In the past decade, we worked closely with our industry partners to build and maintain a quality environment for the user departments and the public. We have continued practising active and passive building designs, where possible, in our projects to enhance the sustainability performance of the government buildings. We have also fulfilled BEAM Plus requirements in most of our new designs to construct healthy, high quality, efficient and environmentally sound buildings.

As a knowledge-based learning organisation, we understand the importance of knowledge capitalisation and sharing. We have created various platforms for knowledge transfer to equip our staff with necessary skills. Following the implementation of our Knowledge Management Portal and Extranet last year, we have germinated the idea of the ArchSD Academy, a programme allowing the knowledge of the experienced staff to pass onto the younger generations. Through continuous trainings offered by the Academy, staff work together with synergy to meet the ever changing challenges and public expectations ahead of us.

I hope you will find this report informative and useful. For our continuous improvement, please share your comments, views or suggestions with us by completing and returning the [feedback form](#) at the end of this report.

LEUNG Koon-kee, JP
Director of Architectural Services



About This Report

Reporting Objectives

To communicate latest development and achievement to our valued stakeholders, the Architectural Services Department (ArchSD) of the Government of the Hong Kong Special Administrative Region has produced 15 reports in total. *Keep Going Green* is our tenth annual Sustainability Report, elaborating our performance on economic, environmental and social aspects in 2012.

We wish this report could provide an opportunity not only to demonstrate our last year achievement with your support, but also to ensure you of our commitment to serving better in the future with continuous efforts and improvement in sustainability.

Reporting Scope

The Sustainability Report 2013 ("the Report") highlights our major activities and achievements on sustainable development from 1 January to 31 December 2012. There was no significant change in our operational size, structure, ownership and supply chain during the year.

Data in the Report are presented as absolute figures as of 31 December 2012 (unless otherwise stated) to the best of our knowledge. The Report covers the performance data of our six functional branches and two Central Management Divisions. Financial data are reported for the financial year ended 31 March 2013. All monetary values are in Hong Kong Dollars.

Reporting Principles

The Report was prepared in accordance with the Core requirements of the latest version of the Sustainability Reporting Guidelines, G4, published by the Global Reporting Initiative (GRI) in May 2013, as well as the Environmental Protection Department (EPD)'s A Guide to Environmental Reporting for Controlling Officers.

The GRI Content Index correlates GRI indicators with associated sections in the Report. An independent third-party assurance has been employed to verify the materiality, credibility and reliability of this Report and ensure its attainments to the Core requirements of GRI G4 Guidelines. We are pleased to be the first government department in Hong Kong to publish our sustainability report in accordance with the GRI G4 Guidelines.



HKQAA presented the verification statement to assure the sustainability report in accordance with the GRI G4 Guidelines

Note to Reader

This Report is published online in web-based interactive html version, PDF version and text-only versions, available in three languages (English, Traditional Chinese and Simplified Chinese). The interface has been prepared in accordance with the Level AA of the W3C Web Content Accessibility Guidelines 2.0. In addition, the report can also be viewed by tablet computers.

The readability and accessibility of the Report are enhanced by the following features:



On-screen font size setting provides more comfortable reading options for various users;



Picture Enlargement function presents larger and clear photo images, graphics and charts to readers;



Text-only version allows readers using assistive tools for web browsing;



Search function facilitates readers to locate any specific interested sections or information efficiently;



"My Report" function enables readers to temporarily store any selected section(s) for consolidation and printing;



"Data Summary" section furnished readers with a quick review of our performance on various key indicators; and



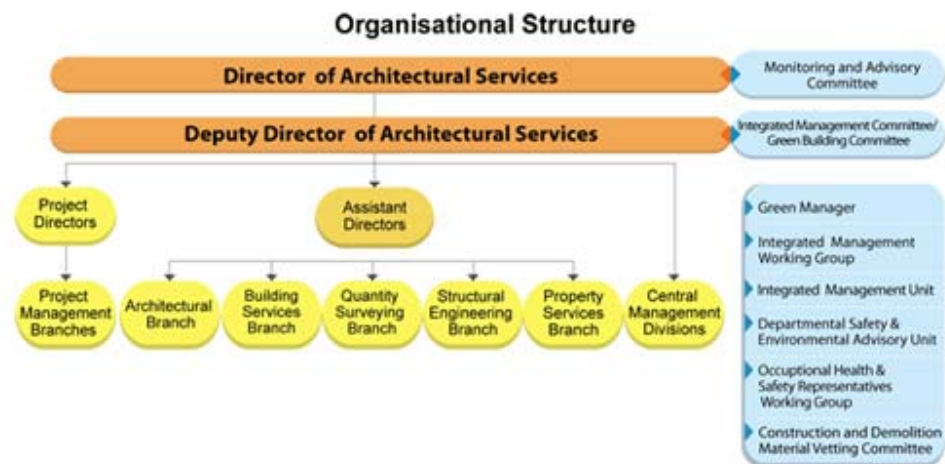
"Glossary" section provides technical definitions of the technical terms using in or relevant to this report.

About Us

Role and Organisational Structure

Architectural Services Department (ArchSD) performs three core functions in relation to Government-owned and Government-funded facilities in the following programme areas:

- **Monitoring and advisory services** - to provide effective professional and technical advice to the Government and quasi-government organisations and to oversee subvented, joint-venture and entrusted projects;
- **Facilities upkeep** - to provide efficient and cost-effective professional and project management services for the maintenance and refurbishment of buildings and facilities; and
- **Facilities development** - to provide efficient, cost-effective and timely architectural and associated professional and project management services for the design and construction of buildings and related facilities.



Funding and Mode of Operation

Our Departmental operation is funded by the Capital Works Reserve Fund which is approved, monitored and reviewed by the Legislative Council (LegCo).

In job creation, we have created a total of 9,865 jobs by awarding works contracts and consultancies in relation to both new capital and minor works projects in 2012. We commenced 13 new capital works projects and a substantial amount of minor works projects during the year.

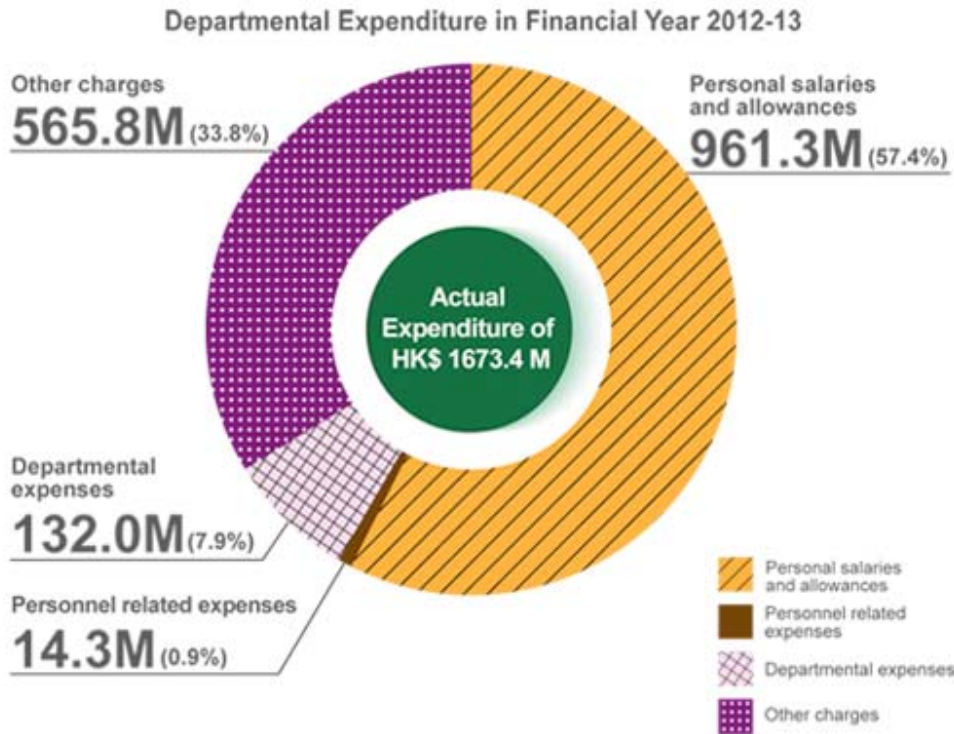
Our role to build and maintain government buildings and facilities involves a considerable amount of investment in terms of financial and human resources. Though it does not easy to quantify the economic value generated, it would improve or enhance the quality of the services and the facilities for the benefit of the public.

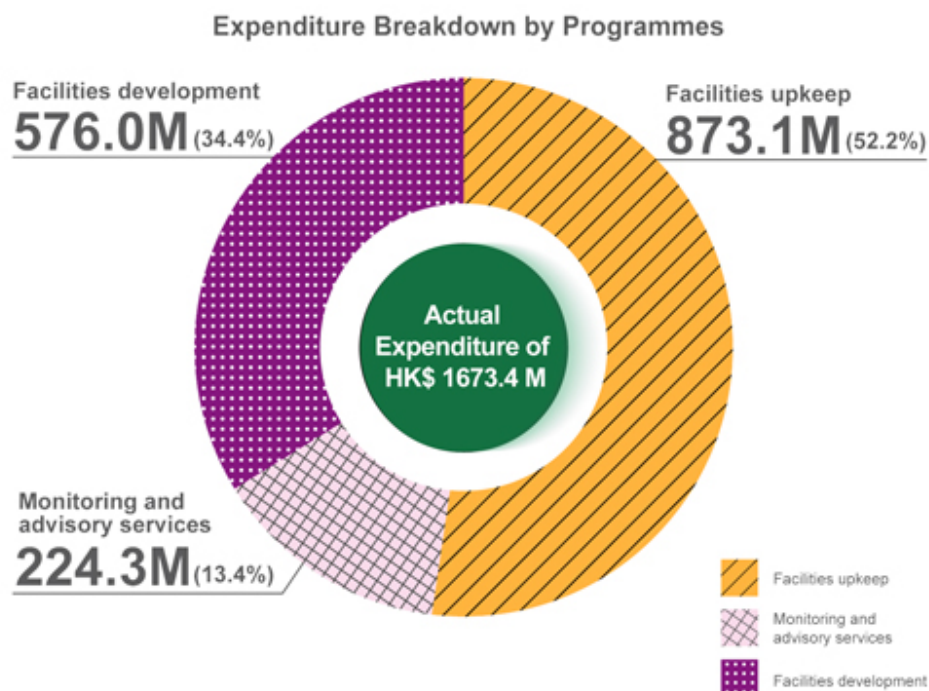
Departmental Expenditure

In the financial year 2012-13, we recorded an overall increase of around 3.5% [1] in departmental expenditure as comparing with the previous financial year in 2011-12. Expenditure breakdown of our Department and by different programmes [2] for the financial year 2012-13 are provided below. Details of our financial information and key performance can be found in the ArchSD Controlling Officer's Report of the 2013-14 Estimates of the Government of the HKSAR, which is available online at www.budget.gov.hk.

[1] The Departmental Expenditure 2012-13 is HK\$1,673.4 million, there was around 3.5% increase as comparing with the Departmental Expenditure 2011-12 of HK\$1,616.7 million.

[2] There are three programmes of ArchSD's services: Monitoring and advisory services, Facilities upkeep and Facilities development.





Key Facts

Founded on: 11 April 1986

Staff Establishment: 1,789 (as at 31 March 2013)

Headquarters: Queensway Government Offices, 66 Queensway, Hong Kong

Other Office Location: APB Centre, Hunghom, Kowloon; 17/F and 19/F, 410 Kwun Tong Road, Kwun Tong, Kowloon

Total Office Area: Approximately 25,000 m² (as at 31 December 2012)

Scale of Services: (from 1 January 2012 to 31 December 2012)

- Number of Subvented / Entrusted Projects Reviewed: 800
- Number of Facilities Development Projects Completed: 41
- Building Floor Area of Properties Maintained: 30,100,000m²
- Government Spending on Facilities Development Projects: HK\$ 10,093 million
- Government Spending on Facilities Upkeep Works: HK\$ 3,530 million
- Value of New Works under Development: HK\$ 85 billion



Recognitions and Awards



ArchSD commits to provide quality services to the public on the development and upkeep of government-owned buildings and facilities. We also explore every opportunity to integrate innovative and sustainable elements into our projects for the betterment of the society. During the year, our efforts were recognised through receiving a number of awards presented below. We will continue to strive for excellence in the years to come.

Hong Kong Institute of Architects (HKIA) Annual Awards

Established since 1965, HKIA Annual Awards has been organised to recognise outstanding architecture designed by its members.

During the year, our projects received a number of honours from the HKIA Annual Awards, for example:

- "Columbarium and Garden of Remembrance at Kiu Tau Road, Wo Hop Shek" was awarded the Medal of the Year of Hong Kong;
- "A 30-classroom Primary School in Area 55, Tuen Mun" and "Sai Kung Tseung Kwan O Government Complex" were granted the Merit Award of Hong Kong; and
- "Re-provisioning of Wo Hop Shek Crematorium" was shortlisted.



Columbarium and Garden of Remembrance at Kiu Tau Road, Wo Hop Shek



Sai Kung Tseung Kwan O Government Complex



A 30-classroom Primary School in Area 55, Tuen Mun



Re-provisioning of Wo Hop Shek Crematorium

The Hong Kong People Engineering Wonders in the 21st Century

With an aim to introduce latest engineering achievements to the public as well as the contribution by the Hong Kong engineers to the society and the people's living standard, the Hong Kong Institution of Engineers organised a voting campaign for locals to vote their favorite engineering wonders.

Our project "The Hong Kong Wetland Park" was voted as one of the top 10 Hong Kong Engineering Wonders.

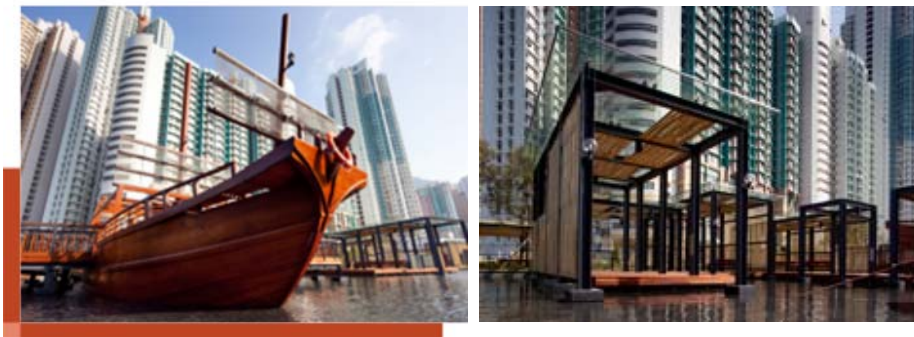


The Hong Kong Wetland Park

The Hong Kong Institute of Landscape Architects (HKILA) Design Awards

The biennial awards are intended to promote excellence in landscape planning, design, and research; to recognise outstanding achievements; and to bring the work of landscape architects and students to the public's attention.

In HKILA Design Awards 2012, our "Aldrich Bay Park" was granted the Silver Award (*Landscape Design Category*).



Aldrich Bay Park

ArchSD Sustainability Report 2013 - Recognitions and Awards

Quality Building Award (QBA)

QBA is a biennial award giving public recognition to buildings of outstanding quality that have demonstrated excellent teamwork. QBA was jointly organised by nine local professional organisations, aiming to promote a collective commitment by the building industry to maintain the highest standards of professionalism and competitiveness.

In 2012, our projects "Main Clinical Block and Trauma Centre, Prince of Wales Hospital", "Siu Sai Wan Complex", "Tung Chung Swimming Pool Complex" were awarded Certificate of Merit (*Hong Kong Non-residential (New Building) Category*). "The Hong Kong Pavilion at the Shanghai Expo" was one of the finalists (*Project outside Hong Kong (Non-Residential)*).



QBA 2012 Award Presentation Ceremony

QBA Trophy for Award of Merit



Main Clinical Block and Trauma Centre, Prince of Wales Hospital

ArchSD Sustainability Report 2013 - Recognitions and Awards

Green Building Award (GBA)

GBA is a biennial industry award jointly organised by the Hong Kong Green Building Council and the Professional Green Building Council. It aims to provide recognition to building-related projects with excellent performance and contributions in sustainability and the built environment. It also encourages the industry to transform the mainstream market towards a wider adoption of sustainable building planning, design, construction, management, operation, maintenance, renovation and decommissioning. Our achievements for this year were as follows.

Hong Kong New Buildings (Completed Buildings) Category

- Siu Sai Wan Complex - Grand Award
- Second Secondary School at Development near Choi Wan Road and Jordan Valley, Kwun Tong (Sing Yin Secondary School) - Merit Award
- Tung Chung Swimming Pool Complex - Finalist



Siu Sai Wan Complex



Interior view of Tung Chung Swimming Pool Complex

Hong Kong New Buildings (Buildings under Construction) Category

- Cruise Terminal Building for the Kai Tak Cruise Terminal Development - Merit Award



GBA Trophy for Grand Award

Skyrise Greenery Awards 2012

This award scheme is the first of its kind in Hong Kong which recognises exemplary projects that showcase the integration of skyrise greenery into the city's built environment. It was organised by the Greening, Landscape and Tree Management Section of the Development Bureau together with seven professional associations. It aims to promote skyrise greening in the building industry as an integral part of project design for a quality landscape and built environment, foster public appreciation of exemplary projects, and promote its wider adoption in Hong Kong.

This year, we won five awards as follows:

- Tamar Development Project (Tamar Park and LegCo Roof Garden) - Silver Award
- Reprovisioning of Diamond Hill Crematorium - Silver Award
- Additional Columbarium at Diamond Hill - Merit Award
- Hong Kong Wetland Park Visitor Centre - Merit Award
- Vertical Greening at Electrical and Mechanical Services Department Headquarters - Merit Award



Overview of Tamar Development Project



Reprovisioning of Diamond Hill Crematorium

World Architecture News (WAN) Awards 2012 & World Architecture Festival (WAF) Awards

WAN Awards and WAF Awards are the world largest festival and awards programmes for the global architecture community to debate, to learn and to be inspired. It is also a showcase of the most innovative design solutions with awards presented by distinguished judges. There were over 700 entries from more than 60 countries to participate in each of these 2 Awards. Our "Ping Shan Tin Shui Wai Leisure and Cultural Building" was one of the 6 Finalists (*Civic Category for Built Project*) for WAN Award 2012 and shortlisted (*Civic and Community Category*) for WAF Awards 2012. Our "Siu Sai Wan Complex" was also shortlisted (*Civic and Community Category*) for WAF Awards 2012.



Ping Shan Tin Shui Wai Leisure & Cultural Building

Structural Excellence Award

The Structural Excellence Award, organised by the Hong Kong Institution of Engineers, aims to promote excellence in structural engineering demonstrated through the design and construction of buildings and structures completed in the last two years. Our "Ping Shan Tin Shui Wai Leisure and Cultural Building" won the Grand Award (*Hong Kong Projects Category*) of the Structural Excellence Award 2012.

American Institute of Architects (AIA) Hong Kong Chapter's Design Awards 2012

The annual American Institute of Architects Hong Kong Chapter's Design Awards Program aims to recognise projects with excellent architectural design. It intends to increase awareness of outstanding architecture and to honour AIA's member architects, clients, and consultants who work together to improve the built environment.

In 2012, our project "Siu Sai Wan Complex" received the Honour Award for Architecture and Sustainable Design Award.



"Vertical Street" of the Siu Sai Wan Complex



Award presentation ceremony

Hong Kong Flower Show

The Hong Kong Flower Show was organised by the Leisure and Cultural Services Department annually. In 2012, the theme flower of the Show was "Hyacinth" and the theme was "Floral Delights". Our flower display was awarded the Grand Award for Design Excellence (*Landscape Display, Displays Section (Local)*).



ArchSD flower display in the Hong Kong Flower Show

Hong Kong Awards for Environmental Excellence (HKAEE)

Environmental Labels

The HKAEE aims to encourage businesses and organisations to adopt green management and to benchmark their commitment towards environmental excellence. The HKAEE are organised by the Environmental Campaign Committee alongside the Environmental Protection Department and in conjunction with nine organisations.

During the year, we were awarded "Class of Good" for three Environmental Labels schemes under the HKAEE namely Wastewi\$e Label, Energywi\$e Label and IAQwi\$e Label to recognise our effort in waste reduction, energy conservation and improving indoor air quality respectively. In 2013, we further obtained the "Class of Excellence" Energywi\$e Label.



Presentation of certificates of Energywi\$e Label and Wastewi\$e Label of HKAEE



Presentation of certificates of IAQwi\$e Label of HKAEE

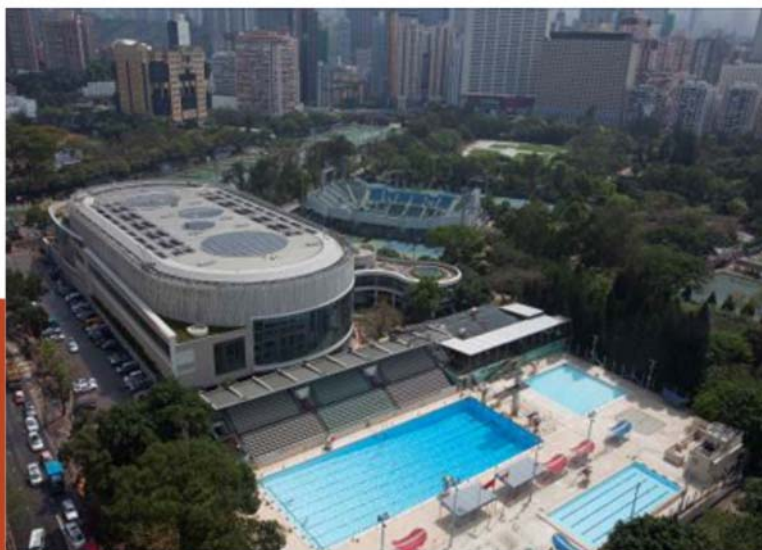
Recently, the HKAEE presented us with a special award to appreciate our efforts in attaining significant energy reduction under the Energywi\$e Label.



ArchSD Representative, Mr. S.K. Ho, JP, AD(BS) (far right) received the certificate of a special award in the Energywi\$e Label

Sectoral Awards

Our project "Redevelopment of Victoria Park Swimming Pool" won the Gold Award (*Construction Sector*) of the Sectoral Awards of 2012 HKAEE.



Redevelopment of Victoria Park Swimming Pool

Manpower Developer Award Scheme

The Manpower Developer Award Scheme is launched by the Employees Retraining Board to acknowledge organisations with outstanding accomplishments in local manpower development. The Scheme aims at enhancing the quality of human resources in Hong Kong through promoting a corporate culture focusing on manpower training and development and raising the general awareness of the importance of on-the-job training and continuous upgrading. During the year, we were awarded the Manpower Developer Logo to appraise our strong commitments to manpower development in our Department.



Manpower Developer Logo

The Caring Organisation Logo Award Scheme

Launched by the Hong Kong Council of Social Service, the Caring Organisation Logo Award Scheme aims to recognise organisations which demonstrate caring spirit to the society, employees and the environment. We were awarded the Caring Organisation Logo for the fourth consecutive year to recognise our effort serving as an exemplar on corporate citizenship in respective areas.



Caring Organisation Logo

Successful Design Awards - China

The 2013 Successful Design Awards - China is organised by Shanghai Industrial Design Association & Shanghai Creative Industry Center. It aims to honour the top international designers and enterprises for their outstanding designs in the Chinese market. We are pleased that our Sustainability Report 2012 won the "Successful Design Award" (*Visual Transmission Category*).



Successful Design Award



ArchSD received the "Successful Design Award" (*Visual Transmission Category*) for its Sustainability Report 2012 with the report production team



Strategy and Management

We execute the following three core functions in relation to Government-owned and Government-funded facilities:

- Facilities Development;
- Facilities Upkeep; and
- Monitoring and Advisory Services (also cover quasi-government organisations)

Under our core functions, we play a number of roles including the Government Advisor, Maintenance Agent, Works Agent, and Project Manager that allow us to promote and achieve sustainable development to our client and to the public.

In pursuit of performance excellence, we adopt and implement an Integrated Management System (IMS), in compliance with ISO 9001, ISO 14001 and OHSAS 18001 standards, to monitor and control service quality, environmental impacts as well as occupational, health and safety risks. Our IMS aligns our operations with the departmental Vision, Mission and Values and enables us to identify room for improvement in sustainability performance.

As one of the internal governance measures, we strictly adhere to the policies stipulated by the Civil Service Bureau. We also follow the guidelines given by the Development Bureau (DEVB), to allow sufficient safety-related provisions such as site safety training, Pay for Safety Scheme and Pay for Safety & Environment Scheme, safety promotion, etc. in our construction contracts. With regard to labour issue, we strictly adhere to the Employment Ordinance which protects the right and benefits of the employees and prohibits hiring any child labour or forced labour. For large-scaled construction projects, a Labour Relations Officer is appointed to resolve any dispute between contractors and workers throughout the contract period.

Our Senior Management commits to community involvements through joining various professional bodies and committees that provide statutory, professional and technical advice for the betterment of the industry and the drafting-up public policies on building design and architectural issues. For instance, our senior staff members are involved in:

- Council of the Lord Wilson Heritage Trust to administer the operation of the Trust;
- Committee on Planning & Land Development to consider and review policies on planning and land development issues;
- Property Strategy Group to consider and decide all matters related to the optimisation of site utilisation;
- Minor Building Works Committee to examine and approve minor building works applications; and
- Steering Committee on Greening, Landscape and Tree Management to set strategic direction on greening, landscape and tree management policies and oversee the implementation of the policies.

ArchSD Sustainability Report 2013 - Management Approach - Strategy and Management

Administrated by our Director, the Senior Staff Forum oversees the management and operation as well as the decision-making on economic, environmental and social impacts of ArchSD. A photo of the Senior Staff Forum, taken in May 2013, was presented below



Photo of the Senior Staff Forum, from left to right:
Miss Deborah AU, DS; Mrs. Sylvia LAM, PD/1; Mrs. Alice YU, PD/3;
Miss H.M. CHAN, PD/2; Mr. Stephen TANG, JP, DDArchS;
Mr. K.K. LEUNG, JP, DArchS; Ms. Sheron LI, AD(QS); Mr. S.W. FONG, AD(PS);
Mr. Benny CHAN, AD(A); Mr. K.T. LEUNG, AD(SE); Mr. S.K. HO, JP, AD(BS).

Vision, Mission and Values

The Senior Staff Forum has defined our Vision, Mission and Values to steer on the Department's operating strategies with the inclusion of our commitment to improve economic, environmental and social performance continually. The Forum is also responsible for the development, approval and updating of our sustainability strategies, policies and goals as well as review of our sustainability performance as part of IMS that would be conducted at least once a year.

Our Vision, Mission and Values and also our Quality, Environmental, Health and Safety Policy are summarised as follows:

Our Vision

Serve and care for our community by enriching the living environment through quality professional services

Our Mission

- Ensure the quality and sustainable development of community facilities
- Ensure the quality upkeep of community facilities
- Provide quality professional advisory services on community facilities and related matters
- Promote best practices in the building industry

ArchSD Sustainability Report 2013 - Management Approach - Strategy and Management

Our Values

- Professionalism
- Commitment
- Accountability
- Integrity
- Versatility
- Continuous Improvement
- Team Spirit
- Partnering Spirit
- Caring Attitude

Quality, Environmental, Health and Safety Policy

When offering our Clients a comprehensive range of multi-disciplinary services for public buildings and facilities, we commit to:

- Fulfill the agreed requirements of our Clients to the highest professional standards.
- Deliver our services in an environmentally responsible manner by implementing conservation of energy, preventing pollution and reducing the consumption of natural resources.
- Manage our health and safety risks to ensure a safe and healthy environment for our staff, our contractors and people who may be affected by our work.
- Comply with all relevant legislations and other requirements, and wherever practicable, to achieve standards beyond those that are legally required.
- Provide adequate resources and training to all staff and provide appropriate training to persons working for or on behalf of ArchSD, to continually improve our quality, environmental, health and safety performance and effectiveness.
- Promote ArchSD's principles of quality, environmental sustainability, health and safety to our partners in work, the construction industry and the general public.

Risk Management

We caution about the hazards associated with our daily operations. To this end, we conduct risk assessments at both department office and project sites and take all necessary steps to prevent, identify and manage the hazard as far as possible.

Through the "Plan-Do-Check-Act" cycle of our IMS, we identify, mitigate and manage potential risks related to our operation and service at Departmental level. The system enables our senior management to evaluate any potential risks on quality, environment, society and economy in relation to our services and operations, and to carry out the necessary preventive actions to minimise or eliminate the risks.

At project level, we follow guidelines issued by the DEVB Technical Circular (Works) No. 22/1993 on "Estimating Using Risk Analysis" and No. 6/2005 on "Implementation of Systematic Risk Management in Public Works Projects" to identify, manage and control the potential risks from the project inception phase to the construction phase. In addition, our project teams will conduct integrated management workshops with various stakeholders throughout construction to facilitate the identification and analysis of potential risks at different project stages and devise effective measures to avoid or lessen the associated impacts.

Integrity

As a civil servant, all our staff members are required to strictly observe and follow the Prevention of Bribery Ordinance to maintain high ethical standards and staff integrity in all operations. Any identified potential bribery and corruption cases will be reported to the Senior Staff Forum and the Independent Commission Against Corruption (ICAC) for investigation. During the reporting year, there was no bribery or corruption case occurred.





Departmental Business Plan

To cater for new challenges and pave way for future development, we established the Business Plan Core Group (BPCG) in August 2009 to steer the development of our 5-year Departmental Business Plan (DBP) for the financial years 2010/11 to 2014/15. The DBP provides a framework and direction to govern our future development. It has been developed through analysing our external operating environment from the political, economic, social, technological, legal and green perspectives, as well as conducting a detailed review of our internal operating environment to identify our transformation priorities. We have also devised new operating strategies that will leverage on our strengths and address key improvement areas.

The 5-year DBP includes the following five major operating strategies that we aim to achieve by the end of 2014/15:

- Develop services on government-wide total asset management;
- Deliver value-added advisory services;
- Promote best practices in construction, sustainable development and heritage conservation;
- Enhance partnership and collaboration with our major stakeholders; and
- Improve service capability and organisational effectiveness through organisation restructuring, enhanced human resource management, and better utilisation of information communication technology and knowledge management technology.

ArchSD Sustainability Report 2013 - Management Approach - Departmental Business Plan

The DBP has already been implemented systematically through respective Annual Plans to meet our shared objectives and targets progressively. The progress status for some of our action items in 2012/13 Annual Plan is summarised below:

- Subvented Projects Division and the Education Bureau jointly conducted a briefing on the arrangement of major repairs to Direct Subsidy Scheme Schools on 9 May 2012.
- An electronic complaint and enquiry and handling system was developed and fully launched in June 2012 to improve handling, monitoring and knowledge sharing on handling of complaints and enquiries.
- Communication meetings were held at the end of March 2012 to update staff on the progress of DBP and Annual Plan.
- The committee structure, the terms of reference and membership of committees are under continual review.
- Phase 1 Staff Resources Planning System's enhancement works for better resources planning and allocation was completed in October 2012.
- The mentorship scheme for newly recruited professional, technical and site supervisory grade staff is continuing. Two sessions on coaching and counseling for all mentors were conducted on 24 January 2013 and 5 February 2013. Four theme-based experience and knowledge sharing sessions were conducted from July 2012 to February 2013.
- Review and monitor the issue of succession planning are continuing.
- Inputs from branches for full implementation of Knowledge Management (KM) were consolidated to help promote KM Practice in the Department. Harvested knowledge was shared through Knowledge Bank, Knowledge Hubs and Knowledge Communities of the KM Portal.

ArchSD Academy

To gear up and retain knowledge and valuable experience among our staff, we launched the ArchSD Academy in April 2013. The ArchSD Academy is set up with the following objectives:

- Active transfer of valuable knowledge and experience in a systematic manner;
- Continuous development for professional, technical and site supervisory grade staff;
- Work synergy of project management and functional streams;
- Instilling a learning and sharing culture in the Department; and
- Gradual transformation of the Department to become a learning organisation.

The first training session of the ArchSD Academy was targeted to be kicked off in the first half of 2013, with project management and project design sessions offered on a regular basis. All the training sessions would be taped and uploaded online together with the presentation materials for easy access by all colleagues through the ArchSD Academy Learning Portal and the Knowledge Management portal.

Knowledge Management

A department-wide knowledge management (KM) Portal was launched on 21 May 2012. This initiative aims to enhance our core competency by managing explicit knowledge; to encourage the formation of community of practice for on-going generation of ArchSD proprietary knowledge; and to promote tacit knowledge harvesting. It involves managing the knowledge life cycle from generation, harvesting, formation of practice wisdom and sharing to publishing, monitoring and renewal. The KM Portal is an integrated system for cross-branches knowledge sharing among colleagues, and is divided into three levels, i.e. knowledge community workspace, functional / branch knowledge hubs and ArchSD knowledge bank.

During 2012/13, we completed the following actions to promote and strengthen KM practices in the Department:

- Held an Open Day cum Kick-off Ceremony of KM on 21 May 2012;
- Set up a total of 10 numbers of Knowledge Communities to collaborate and generate new knowledge;
- Carried out 5 numbers of personal interviews to codify the tacit knowledge of 7 retired colleagues;
- Conducted 10 numbers of After Action Review Workshops to harvest knowledge gained from specific projects and tasks;
- Carried out 2 Staff Motivation Schemes namely "My Favorite Knowledge Hub" and "My Favorite Knowledge Paper" in April 2012 and January 2013 respectively to promote KM culture;
- Organised 8 sessions of KM Awareness Training, Microsoft Sharepoint Training for users and Hub Administrators and KM Facilitation Workshop to build up staff's capability in discharging various KM duties; and
- Devised a new eProfile to gauge staff's skill, expertise and interests at the end 2012.

Extranet

To promote partnership and collaboration with key stakeholders, ArchSD is developing an ArchSD Extranet to enhance communication and information exchange with external users such as consultants and contractors. The Extranet will also assist contract management in the works projects undertaken by the Department. In addition to assisting users in navigating and accessing different application modules, a web-based Project Document Management System (PDMS) will be developed to facilitate communication among project teams, contractors, sub-contractors and designers, etc.



Main Focus Areas

It is important to provide information to our stakeholders that they really concern. To this end, we have maintained a number of mechanisms to engage different stakeholders to understand their interests and expectations on our operations. Details of our stakeholder engagement processes can be found in the Engagement Approach section in this Report.

We have defined the report content through a series of interviews with various stakeholders to identify Aspects and their Boundaries in relation to our operations. The selected stakeholders include representatives from our professional and technical staff, contractors, clients, facility users and professional bodies. With due consideration of our activities, impacts and the substantive expectations and interests of our stakeholders, we have prioritised our focus areas to determine the material Aspects that would be covered in the Report.

ArchSD Sustainability Report 2013 - Management Approach - Main Focus Areas

The table below presents the material Aspects and their Boundaries covered in this Report in which details of our commitments and achievements are provided.

Categories	Material Aspects	Aspect Boundaries	
		Within ArchSD	Relevant to ArchSD's contractors
Environmental	■ Energy	✓	
	■ Emissions	✓	
	■ Effluents and Waste	✓	✓
	■ Compliance	✓	✓
	■ Supplier Environmental Assessment	✓	
Social Labour Practices and Decent Work	■ Employment	✓	
	■ Occupational Health and Safety	✓	✓
	■ Training and Education	✓	
Human Rights	■ Non-discrimination	✓	
Society	■ Anti-corruption	✓	
	■ Grievance Mechanisms for Impacts on Society	✓	
Product Responsibility	■ Product and Service Labelling	✓	
Economic	■ Procurement Practices	✓	



Engagement Approach

It is important for us to hear views and comments from stakeholders in order to maintain a balance of various sustainability aspects in our operation. We have identified relevant groups of stakeholder who have direct and/or indirect interests on ArchSD developments through our daily operations and communication processes. Our major stakeholder groups include staff, clients, contractors/consultants, users, professional bodies and general public. We acknowledge their contributions and engagement by different means, e.g. from website, reports, surveys, public events to face-to-face meetings. Their valuable comments on our sustainability performance assist us in identifying room for improvement and formulating direction for future development.



Mr. LEUNG Koon-kee, JP, Director of Architectural Services Department

We engaged our clients through the Client Satisfaction Surveys, Post Occupancy Evaluations, public functions and meetings to gauge our operation and understand their expectations on our sustainability performance. We strive to provide quality services to our clients by means of developing a steady and sustainable supply chain. We also deliver presentations at public seminars and trade events to provide the latest information on our procurement activities and requirements to existing and potential suppliers.

For our professional partners, such as consultants and contractors, we appreciate their contributions and collect their feedbacks through activities such as the Green Contractor Award, the Considerate Contractor Awards, site visits and functions organised by professional bodies.

ArchSD Sustainability Report 2013 - Management Approach - Engagement Approach

To communicate with legislators and local district councillors, we organise various focused meetings for public works sub-committees and district councils to share green practices and/or achievement with participants. Research-oriented conferences, training and overseas study missions are also provided to academia groups.

Internally, we have maintained various staff engagement channels such as the Departmental Consultative Committee, Joint Staff Consultation Group, Staff Motivation Scheme, Web Forum, Staff Relation Units and other staff associations. Our colleagues are encouraged to exchange their insights and offer suggestions to ArchSD's sustainable development through these channels.

In addition, local and overseas parties may communicate with us directly through our department website to enquire about additional information or to comment on our performance. We also welcome enquiries from media and NGOs.

Stakeholder Interview

We treasure comments, views and suggestions from our stakeholders to continuously improve our performance. We therefore conducted six interviews with individuals representing the five major stakeholder groups of staff, contractors, clients, users and professional organisations in order to understand their concerns and obtain feedback.



Mr. Choi Chung Yung
Senior Architect of ArchSD

Comment from Staff:

ArchSD is committed to sustainability by setting various environmental targets for building design such as energy conservation, water saving and greening. In recent years, ArchSD has taken a further step to strengthen its collaboration with other government departments such as Planning Department and Environmental Protection Department to leverage different expertise to develop long-term sustainable planning for some mega projects such as Kai Tak Development. ArchSD also actively shares its professional knowledge about building design with the community including schools and the general public to raise awareness on sustainability.

Internally, I am very satisfied with the management and staff relationship within the Department as we have close and effective communication channels in place to minimise conflicts and enhance mutual understanding. In addition, the Department has arranged a wide range of staff recreational activities and the Staff Motivation Scheme to reinforce staff morale and sense of belonging. In the near future, I would like to see if the winning ideas of the Staff Motivation Scheme could be quickly adopted so that we could benefit from the collaborative wisdoms from all ArchSD staff.

Our Response:

We believe maintaining a strong line of communication can enhance staff morale and operational efficiency of the Department. We treasure the views, suggestions and valuable experience from our staff. We will continue to leverage the collaborative wisdoms from our staff and external parties to contribute to the society at large.



Mr. Leung Chi-wing
Chief Technical Officer (Architectural)

Comment from Staff:

ArchSD has made every effort to improve its environmental, social and economic performance in order to strengthen its role as a corporate advisor to the Government in property planning and development. The Department has taken an active role to create a healthy, safe and sustainable environment for the community, to enhance its works in research and development; and to promote operation excellence and best practice in the construction industry. In terms of team building and capability enhancement of staff, the Department has launched a number of initiatives in recent years. For instance, the Department has organised various award schemes such as the ArchSD Annual Award to recognise staff with remarkable accomplishments and contributions to the Department. To

instill a culture of sharing among staff, a knowledge management portal was established to retain valuable experiences and knowledge from senior staff, particularly from those about to retire. As a supporting staff, I would like to see the Department to continue providing further training opportunities on the latest IT knowledge or other relevant training for our staff.

Our Response:

Retaining a pool of talents with high team spirit is crucial to our success in providing quality and sustainable services to our clients and the society. We will look into every possible opportunity to enhance staff morale and capability to continue improving our performance.



Mr. H. K. Kong
Site Agent (Kowloon Bay Fire Station Project) of Paul Y. Construction & Engineering Co. Limited

Comment from Contractor:

ArchSD has offered us unfailing support to fulfill the sustainability requirements for the construction of the Kowloon Bay Fire Station. From the beginning of the design stage through construction and daily operation, ArchSD has worked closely with our staff to ensure the Project is in full compliance with the contract provisions with regard to the aspects of environmental protection, safety and workers' practices. This is exemplified by our successful implementation of the Environmental Management Plan and other sustainability best practices for the Project. With our concerted efforts and the professional advice provided by ArchSD, we attained the Green Contractor Award which

motivated us to keep striving for sustainability excellence. We will continue to collaborate with ArchSD in our sustainability journey for project execution. In the future, we would like to see more innovative sustainability initiatives to be introduced by ArchSD, which can help us strengthen the professional training and provide career development opportunities for the younger generations in the construction industry.

Our Response:

Contractors are our important partners to achieve sustainability. We will continue to provide full support to our contractors to strive for sustainability excellence and assist in nurturing the younger generations in the construction industry.



Ms Ho Wing-yin, Winnie

Deputy Head of Energizing Kowloon East Office

Comment from Client:

ArchSD was involved in different stages during the establishment of the Energizing Kowloon East Office (EKEO), from selecting the location, developing design concepts, monitoring the construction on site to assisting in the building handover and maintenance. It is an innovative idea to set up the EKEO temporary office underneath the Kwun Tong Bypass. We highly appreciate the design creativity, professional advice and technical information provided proactively by ArchSD to cater for our specific needs and expectations to build this first-of-its-kind office in Hong Kong. The selected location not only optimises the potential of land use under the bypass, but also allows us to build up a very close relationship with the Kowloon East communities. We are delighted that our

office has become an iconic building in the area and also Hong Kong's first low carbon temporary office which has adopted a number of integrated green building technologies and features, lean construction methods and low embodied energy materials. We look forward to seeing that ArchSD continues to lead its clients to build a sustainable living environment in Hong Kong.

Our Response:

It is always our mission to maximise the sustainability benefits in our building projects. The EKEO temporary office sets a good example in terms of temporary green building structure and optimising the land use in Hong Kong. We will continue to assist our clients in achieving various sustainability objectives, as far as practicable, in the future.



Mr. Chow Long-kau, Max

Manager (Siu Sai Wan Complex) of Leisure and Cultural Services Department

Comment from User:

The newly-built Siu Sai Wan Complex features a sun-shading and rain-screening entrance canopy, a roof skylight as well as vivid colours. I enjoy the comfortable working environment in the Complex. With due consideration of the functionality and practicability, ArchSD also incorporated various green and user-friendly elements into the Complex. For instance, the atrium is designed as a "Vertical Street" to provide a large open area for social interaction of the local community. It serves as a gathering place to meet with friends and a clubhouse for the enjoyment of the public. With the extensive use of natural lighting and open-plan architectural design, the overall energy consumption of the Complex is greatly reduced as compared with ordinary indoor sports centres and

swimming pools. The Complex goes beyond a traditional recreational facility, acting as an exemplar to educate citizens about green building and the art of green living.

Our Response:

We are pleased to hear the positive feedback from the user on our green building design. We will maintain our momentum to strive for the balance between different sustainability aspects to cater for the needs of our clients, the users and the public at large.



Mr. Dominic K.K. Lam

Immediate Past President of The Hong Kong Institute of Architects

Comment from Association:

Over the years, The Hong Kong Institute of Architects (HKIA) has worked closely with ArchSD to promote sustainable building design in Hong Kong. ArchSD staff, some of whom are our members, have been actively providing support and participating in our activities to share their professional knowledge and practical experience in sustainable building design. ArchSD plays an important role in the design, development and management of public development projects. The Department always introduces new initiatives, where applicable, to enhance the sustainability performance of the projects. For instance, ArchSD will look for possible opportunities to adopt barrier-free and sustainable features during the preliminary building design stage. I would say ArchSD is one of the

pioneers to pursue sustainable design in building development projects in Hong Kong.

In addition to practicing sustainable building design in projects, ArchSD is committed to promoting architectural excellence to the industry and providing a pleasant environment to the public. ArchSD's efforts have been highly recognised and it won 4 awards in HKIA Annual Awards 2012, including the "Medal of the Year of Hong Kong", which is the highest honour of the Annual Awards.

To further enhance awareness and understanding on sustainable building design, it is recommended that ArchSD should continue to promote the concepts and benefits of various sustainable features in building development projects to the general public.

Our Response:

We devote ourselves to enhance building sustainability in Hong Kong. We will continue to practice sustainable building design in our projects and to work with various professional bodies to raise public awareness and understanding.



Resources Utilization and Conservation



Low Carbon Building Design

As the majority of the total Greenhouse Gas (GHG) emissions are related to buildings, the term "energy efficiency" in buildings has been regarded as an enormous opportunity for cost reduction and reducing greenhouse gas emissions within our community. Over the years, we put substantial efforts to look into opportunities for carbon reduction in our development projects as we believe that low carbon building design will help us build a sustainable future.

To echo the Building Energy Efficiency Ordinance which has been come into effective since September 2012, we, as the technical adviser of the Government, support the initiatives by taking the lead to implement energy efficiency measures in our buildings.

Case Study

Energizing Kowloon East Office

The Energizing Kowloon East Office (EKEO) has been established with an aim to steer, supervise, oversee and monitor the development of Kowloon East, with a view to facilitate its transformation into another premier Central Business District of Hong Kong.

The construction of EKEO building has been completed in just six months, taking three months of our concerted effort in design and another three months for construction. The self-contained and cost-effective EKEO building not only provides an efficient workspace for the EKEO team, but it also showcases a new sustainable design concept with low carbon footprint.



Entrance of the Energizing Kowloon East Office

Having attained the highest provisional BEAM Plus Platinum rating, the EKEO building achieves the following environmental benefits:

Energy Saving

- About 33% or 48,500 kWh per year reduction of annual energy consumption;
- About 37% reduction in peak electricity demand;

Water Conservation

- About 58% or 805,000 L per year reduction in fresh water consumption by harvesting rainwater for irrigation;
- About 22% or 51,600 L per year reduction in flushing water demand by using low flow urinal and dual flush toilets;

Waste Reduction

- About 69% or 10,500 kg of construction waste recycled or reused; and
- About 50% of building materials are prefabricated.

Modular construction approach is adopted for building the office, using recycled freight containers and other steel structures which enable greater flexibility in layout changes. These materials can be easily dismantled and reused elsewhere at the end of the building's life. Compared with other freight containers that have been used as temporary offices, the design of EKEO has achieved a much higher architectural standard, offering an attractive and sustainable piece of architecture with comfortable working environment.



Building structure hidden under the Kwun Tong Bypass to avoid heat gain

The EKEO has adopted passive designs to significantly reduce energy consumption for ventilation and air conditioning. Most of the building was smartly constructed under the Kwun Tong Bypass to minimise heat gain from the sun thus keep the building cool. The adoption of perforated walls on the southeast side with corresponding windows can encourage natural ventilation and cooling breezes into the offices.



Unique designs to encourage natural ventilation and reduce energy consumption

To further enhance carbon reduction, the EKEO building adopts dual flush toilets and low-flow taps and installs traditional wisdom of harvesting rainwater for irrigation to ensure only what is needed is used. In addition, paving blocks used within the site are made from recycled aggregate, glass and fly ash from power plants.

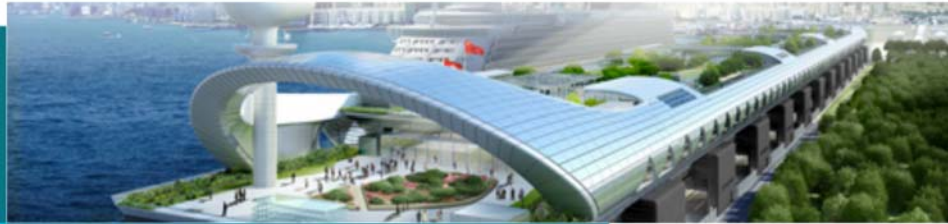


Paving blocks made from recycled materials

Case Study

Cruise Terminal Building and Ancillary Facilities for the Kai Tak Cruise Terminal Development

The project comprises the development of new cruise terminal facilities on a site of 7.6 hectares at the southern end of the former runway at the Kai Tak Airport. The scope of works includes constructing the cruise terminal building and the associated apron facilities.



Artist's impression of Cruise Terminal Building

The new cruise terminal building will provide a great variety of facilities in supporting the operation of the cruise terminal such as Customs, Immigration, Quarantine and Police (CIQP) services, security screening, baggage handling, ticketing, check-in, passenger waiting or queuing, concourses, etc. Apron facilities cover building services of passenger gangways, electricity supply systems, on-shore water supply and sewage reception facilities, external lighting, navigation lighting, fire fighting provisions, etc.



Artist's impression of the landscaped deck



Inside views of Cruise Terminal Building (artistic impression)

Various forms of energy efficient features have been adopted. These include:

- automatic demand control of chilled water circulation system, air supply and control for ventilation fans in car park;
- demand control of fresh air supply with carbon dioxide sensors;

- heat wheels for heat energy reclaim of exhaust air;
- connection to District Cooling System for air-conditioning;
- T5 energy efficient fluorescent tubes with electronic ballast and lighting control by occupancy sensors and daylight sensors;
- services-on-demand control for escalators and passenger conveyors (on/off control);
- heat pumps for hot water/space heating;
- building energy management system for large installations; and
- photovoltaic system and solar hot water system.

In addition to facilities for cruise passengers, the terminal building features a landscaped deck of about 23,000 m², which will be one of the largest public roof gardens in Hong Kong, as well as an ancillary commercial area of 5,600 m². The landscaped deck will serve as a good spot for cruise passengers and local residents to meet and enjoy the spectacular panoramic view of the Victoria Harbour.

The terminal building has received the first cruise liner in June 2013 and it will be in fully operation at a later stage.



Greening and Landscaping

As an on-going initiative, ArchSD will continue to enhance greening and landscaping through maximisation of greenery coverage, including roof greening and vertical greening. As the government's technical adviser, we strive to promote best practices of roof greening and vertical greening to various government departments and quasi-government organisations on subvented projects.

In 2012, we completed 13 projects with green roofs on new buildings and 12 projects with retrofitted green roofs on existing buildings for different government bureaux/departments and related organisations, including:

- Education Bureau;
- Civil Aviation Department;
- Customs and Excise Department;
- Fire Services Department;
- Food and Environmental Hygiene Department;
- Home Affairs Department;
- Hong Kong Police Force;
- Immigration Department;
- Leisure and Cultural Services Department; and
- Hospital Authority, etc.

The types of buildings/facilities included are columbarium, crematorium, fire station, food inspection facility, government office, government quarter, hospital, joint-user complex, police station, school, sports centre, community hall and swimming pool complex.

Case Study

Provision of Columbarium and Garden of Remembrance at Kiu Tau Road, Wo Hop Shek

The development of the new extension of Wo Hop Shek Columbarium and its Garden of Remembrance (GoR) offers the deceased a final resting place surrounded by greenery.

The project involves the construction of 35,310 indoor niches, 8,400 outdoor niches, centralised joss paper burners, administrative facilities, Customer e-Information Centre for web-worshipping and searching of the tombs or niches of ancestors, and GoR for scattering of cremated ashes.

The project site is located at rural area which covers with lots of greeneries. By making use of the inherent natural beauty, the project is designed as a place with park-line environment.



Overview of Wo Hop Shek Columbarium and its GoR



Timber screen shielding of the niches

The GoR features a variety of flowers and plants in a scenic and tranquil environment, with memorial walls for mounting plaques in memory of the deceased. Two GoRs with different designs are situated at the West Wing and East Wing in the Columbarium. The West Wing involves a Western-style design concept and is decorated with stone animal sculptures and thematic plaque walls in order to create an artistic atmosphere. The East Wing involves a Chinese-style design concept, with three different themes of Chinese plantings (bamboo, plum and willow) for each of the three tiers.



The GoR in the West Wing decorated with stone animal sculptures and thematic plaque walls



The GoR in the East Wing featured with three different themes of Chinese plantings

A symbolic landscaping concept is applied where a square-shaped lawn and a reflecting pool locate outside the Customer e-Information Center next to the centralised joss paper burners. The lawn is constructed in a form of spiral path which symbolises the re-birth of human life. Inspired by a religious poem, the reflecting pool is a square-shaped raised water surface, over which there is a stepping path leading to nowhere in the middle. Such features provide a place for meditation and signify the revisiting of human life after death.



1. A square-shaped lawn
2. A reflecting pool

Case Study

Re-provisioning of Wo Hop Shek Crematorium

The Project involves the re-provision of coffin cremators and existing skeletal cremator in-situ and to provide four additional coffin/dual-purpose cremators by three phases at the same site. Other main construction works include building service halls with ancillary facilities, a pulverising room, a bone storage room, a mortuary, ancillary service rooms and offices.



The entrance of Wo Hop Shek Crematorium

In recent years, the priority on design of crematoriums has been shifted from focusing on functional efficiency to taking care of the feelings of grieved families. As such, a number of architectural elements had been introduced to echo different stages of the funeral process.

The design of the new crematorium brings the nature into the interior of the halls by replacing the backdrop with a narrow courtyard planted with natural bamboos. The design arrangement gives the halls a light glimpse of Chinese symbolism of evergreen, uprighteousness, delicacy and fineness.



A narrow courtyard planted with natural bamboos inside the hall

Making use the roof of the cremation plant room, a large tilted lawn area is provided as a place for meditation before the sad grieving families leave the premises. This landscape area is designed with openness to nature, where sounds of falling water and distant mountain views can help to reduce the sadness of the grieving families, leading them back to the real world.



A large tilted lawn area



The landscape area with openness to nature

Case Study

Sai Kung Tseung Kwan O Government Complex

The aim of the project is to provide a sports centre, a community hall and office accommodation for government departments in Tseung Kwan O to meet the demand of the community.

The sports centre comprises a multi-purpose main arena with a seating capacity of about 1,200 spectators, a multi-purpose activity room, a table-tennis room, a fitness room, a children play room, a reading corner, an indoor running track, and ancillary facilities.

The community hall involves a multi-purpose hall with a seating capacity of 450, a stage and its ancillary store, a stage meeting room, dressing rooms, a conference room, a management office, an office store, and other ancillary facilities.

Office accommodation provides facilities to district offices of various government departments including Leisure and Cultural Services Department, Home Affairs Department and Food and Environmental Hygiene Department.

With environmentally friendly design, the complex is designed with a green rooftop. Vertical greening is also adopted at the external walls of the building which compliments with the adjacent Pui Shing Garden.



Overview of Sai Kung Tseung Kwan O Government Complex



1. Vertical greening and shading screen on the west side of the Complex
2. Green roof above Hang Hau Sports Centre



Reflecting pool and the outdoor setting connecting the Complex with the existing Pui Shing Garden



Skylight introducing natural light into the Atrium and the Roof Garden

Case Study

New Civil Aviation Department Headquarters

The new Civil Aviation Department (CAD) Headquarters aims to accommodate the new Air Traffic Control Centre (ATCC) and all CAD functional divisions under one roof to optimise resource utilisation and enhance efficiency.

The new CAD Headquarters provide a gross floor area of 41,000m², comprising the Regulatory and Training Building, an Air Traffic Control Centre and an Accident Investigation and Facilities Building. In addition, the new Headquarters provides an Aviation Education Path which includes three exhibition galleries to introduce Hong Kong's aviation history, air traffic control operations, aviation security, flight safety and aircraft accident investigation.

Landscape design of the project maximises the creation of greenery, aiming to blend in the surrounding environment harmoniously. Within the premises, over 30 per cent of the area and the roof of the Headquarters are garden-landscaped. Roof gardens, open decks, and outdoor terraces are adopted in the design and layout of the buildings.



Overview of New Civil Aviation Department Headquarters on Airport Island



Resources Utilization and Conservation



Heritage Conservation

Heritage conservation encompasses the identification, protection and promotion of materials which are important to our culture and history. We therefore pay special attention to the preservation of archaeological and built heritage in Hong Kong.

For the past years, we have been working closely with the Antiquities and Monument Office (AMO) to undertake heritage and conservation projects. We aim to protect, conserve and revitalise appropriate historical and heritage sites and buildings through sustainable approaches for the benefit and enjoyment of present and future generations.

Case Study

Transformation of the Former Police Married Quarters Site on Hollywood Road into a Creative Industries Landmark

The project aims to revitalise the former Police Married Quarters on Hollywood Road for heritage conservation and to support the operation of Hong Kong's creative industries (the "PMQ" project). The conservation and revitalisation works commenced in 2011 and the facilities will be commissioned in 2014. It is one of the eight projects under the "Conserving Central" initiative announced in the Chief Executive's 2009-10 Policy Address.



Artist's impression from aerial



Artist's impression from Hollywood Road

The "PMQ" project mainly involves the conversion of two quarter blocks to meet new functional requirements of creative industries with studios, lodges, offices, a creative resource centre, shops and restaurants or cafés. The revitalisation works also include conversion works of building structures to accommodate spaces for organising events for the promotion of creative industries or other activities.

Preservation works of the project include retaining the rubble retaining walls, quoins, granite shafts/plinths/gate posts/steps of the former Central School and preserving the stone wall trees around the site. In addition, the project also involves reprovisioning of three original openings of the former Central School and construction of a new pedestrian opening at Staunton Street near its junction with Shing Wong Street to enhance accessibility and connectivity of the site.

The project has adopted various forms of energy efficient design features that including:

- heat recovery fresh air pre-conditioners in the air-conditioned spaces for heat energy reclaim of exhaust air;
- variable-refrigerant-volume (VRV) air-conditioning system;
- T5 energy efficient fluorescent tubes with electronic ballast and lighting control by occupancy sensors and daylight sensors;
- compact fluorescent lamps with electronic ballast and lighting control by daylight sensor;
- LED type feature lights;
- automatic on/off switching of lighting and ventilation fan inside the lift;
- photovoltaic LED external lighting; and
- green roof at the building block.



Artist's impression on corridor of Block A and B



1. Artist's impression on I-Cube from semi-covered event space
2. Artist's impression on covered event space

Case Study

Relocation of the Court of Final Appeal to No. 8 Jackson Road

The project is a live case of adaptive re-use of Hong Kong's treasured heritage. The works involve the conversion and refurbishment of the building on No. 8 Jackson Road, which was formerly the Supreme Court of Hong Kong until 1978 and was converted into the use of the Legislative Council Building in 1985, for the relocation of the Court of Final Appeal (CFA).



Existing Former Legislative Council Building (Old Supreme Court Building) at No. 8 Jackson Road

Since the exterior of No. 8 Jackson Road is a declared monument and the building is accorded with Grade 1 historic building status, steps are taken in order to minimise the impact on or alteration to the original building.



Repair and restoration Works to the exterior of the building will be carried out

The following building features with heritage value will be conserved:

- the entire building façade;
- the original decorative mouldings at ceiling;
- the original timber teakwood flooring that is in good condition;
- the former double height Ante-Chamber of the Legislative Council and its features including the supporting brackets, mouldings and metal railings;
- the verandah on 1/F;
- the features at the basement including the granite arches, skylights and vent openings;
- the features with heritage value in the former Chamber of the Legislative Council including the granite columns, ceiling mouldings and timber wall panels; and
- the remains of the "Bridge of Sighs", which was the former passage from the defendant's area to the Courtrooms of the former Supreme Court.



1. Features in The former Ante-Chamber of the Legislative Council To be conserved
2. The existing verandah on 1/F To be conserved

Various forms of energy efficient design and features will be adopted in the building. These include direct sea-water cooling air-conditioning system with high efficiency water-cooled chiller; automatic demand control of chilled water circulation system; demand control of fresh air supply with carbon dioxide sensors; and fan coil units with brushless direct current motors.

The future CFA building will provide a total net operational floor area of about 3,070 m². The premises will mainly use for accommodating facilities such as courtrooms, chambers for Judges, facilities for lawyers, offices for the Development Division of the Judiciary Administration, a custody area for defendants, a library for Judges and judiciary staff of the CFA , etc.

The future CFA building is a building of great historical value and interest, which was part of the community. As such, it is planned to open as much as possible the building to the public, provided that the functioning of the Court is not affected. Two galleries will also be set up upon completion of the project, of which one will be used for exhibits relevant to the Judiciary and the other will be in connection with the history of architectural development of the building.



In-house Green Management

While we continue striving for excellence in building design, our team has always come up with a lot of smart initiatives to fine tune-internal operations in order to improve our environmental performance.

During the year, we leveraged the strengths of members from various units and participated in a considerable number of environmental programmes and initiatives. Such efforts brought us to enjoy the great success of cutting down energy consumption as well as reduction of our carbon footprint.

Managing Our Carbon Footprint

Since 2010, we have been conducting carbon audits for our offices in the Queensway Government Offices (QGO) and APB Centre to measure our environmental performance. More importantly, the carbon audit results enable us to identify areas for improvement.

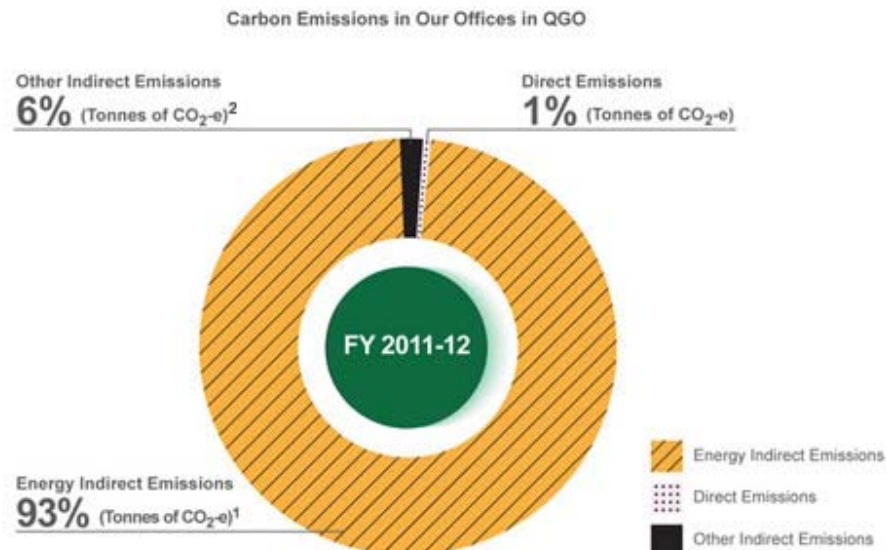
Our carbon footprints of QGO and APB Centre over the past three years are shown in the table below:

Carbon Emissions in Our Offices in QGO

	FY 2009-10	FY 2009-10	FY 2010-11
Direct Emissions (Tonnes of CO ₂ -e)	31.05	32.38	28.66
Energy Indirect Emissions (Tonnes of CO ₂ -e) [1]	2,482.01	2,417.88	2,372.86
Other Indirect Emissions (Tonnes of CO ₂ -e) [2]	169.66	156.86	142.94
Total (Tonnes of CO ₂ -e) [2]	2682.72	2607.12	2544.46

[1] Territory-wide default emission factor was used for the calculation of emissions.

[2] The figures in FY 2009-10 ,FY 2010-11 and FY 2011-12 are calculated by using the actual paper consumption and waste paper collected for recycling.

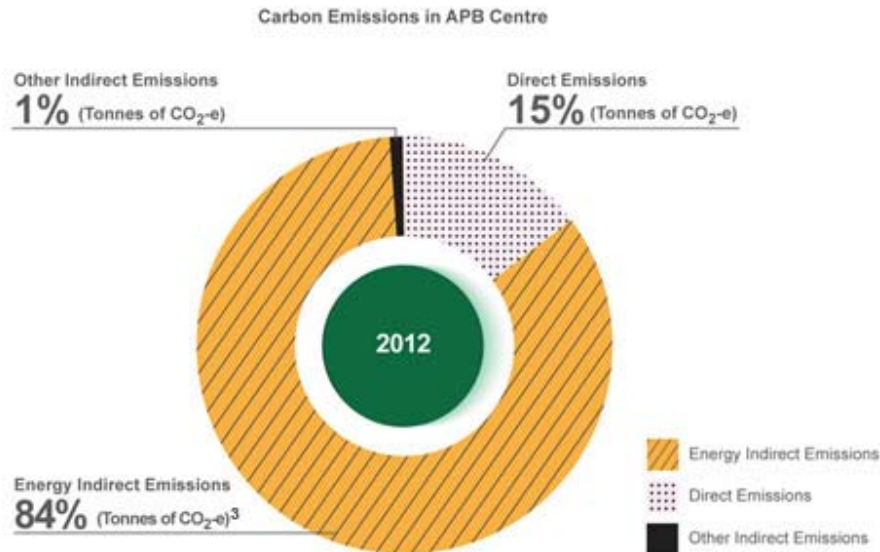


Compared to the carbon auditing result for FY 2010-11, this year we achieved a 2.4% of carbon reduction in the QGO. The reduction in carbon emissions were mainly due to the decrease in electricity consumption, fugitive emissions and paper consumption as well as the increase in the amount of paper recycling.

Carbon Emissions in APB Centre

	2010	2011	2012
Direct Emissions (Tonnes of CO ₂ -e)	28.51	611.79	325.14
Energy Indirect Emissions (Tonnes of CO ₂ -e) [3]	1,844.70	1,825.39	1,833.11
Other Indirect Emissions (Tonnes of CO ₂ -e)	26.17	20.38	13.93
Total (Tonnes of CO ₂ -e)	1,899.38	2,457.56	2,172.17

[3] Territory-wide default emission factor was used for the calculation of emissions.



ArchSD Sustainability Report 2013 - Resources Utilization and Conservation - In-house Green Management

Compared to the carbon auditing results for 2011, this year we achieved an 11.6% of carbon reduction in the APB Centre. The drop of carbon emissions was mainly due to the reduction of fugitive emissions and paper consumption. In 2012, fugitive emissions decreased by 70.5% which accounted for the overall decrease of 46.9% in direct carbon emissions, while about 33.5% drop in in other indirect carbon emissions was reported because of the reduction of paper consumption.

Application of Green ICT for Enhancing Energy Efficiency

There has been an increasing trend of using better green Information and Communications Technology (ICT) solutions for improving organisational environmental performance. As such, our team has implemented a number of green ICT initiatives to improve our work flow so as to enhance our energy efficiency.

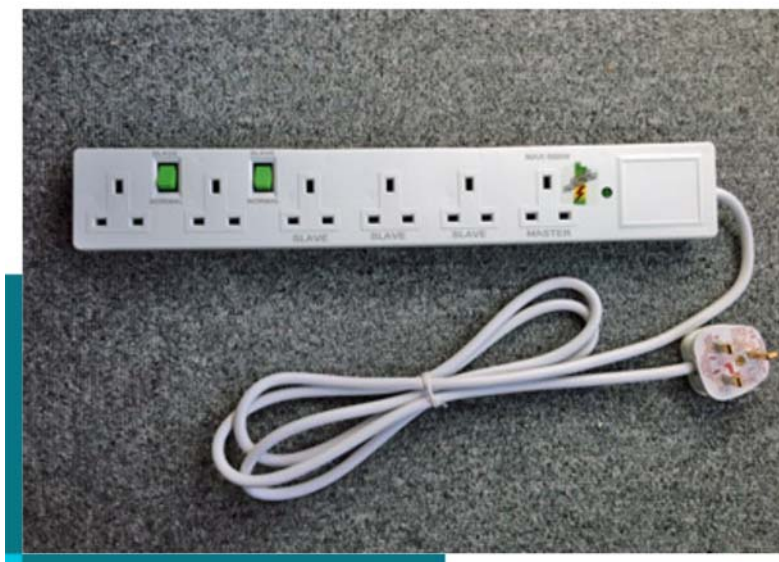
To facilitate our communication with consultants, contractors and various stakeholders, we have been operating a private secured web portal (Extranet) with restricted access for better information sharing. In addition, our website has been updated regularly for better communication with the public. Recently, we have developed smart phone apps for our website in order to facilitate the browsing of our latest works.

For the betterment of the construction industry, the HKSAR Government encourages the adaptation of the Building Information Modeling (BIM), which can reduce cost, increase productivity, reduce errors and improve the quality of work products and improve the built environment. BIM is growing to be one of the essential tools and platforms to facilitate successful collaboration and coordination during the lifetime of a building, i.e. pre-design, design, construction, operation and maintenance. To support the adoption of BIM in our Department, we have already converted a meeting room to BIM Development Unit in March 2013 with equipment installed for BIM production, cross branch discussion and training. As at June 2013, we have provided relevant training courses or briefing sessions to 485 staff to prepare for the implementation of BIM in our projects. We have embarked two pilot projects including RTHK Studios and Yau Ma Tei Theatre Centre Phase 2 to harness BIM to augment the sustainable project delivery and facilities upkeep to promote and to share the experience with our staff and our stakeholders. We are planning to select three more projects for the trial run and to conduct more hands-on training for BIM pilot project team members and other staff by the end of 2013.

Energy Conservation

During the year, we completed a number of initiatives which targeted for energy conservation and operations improvement. For instance, we finished retrofitting the lighting system and reduced the number of lamps used at various office areas within the QGO Office. In addition, we installed occupancy sensors to control the operations of 900 lamps in some open plan offices. Such arrangement could achieve a saving of 32,760 kWh per year.

To further enhance our energy management practices in the QGO Office, we targeted to reduce the standby power usage by switching off some office equipment such as photocopiers, fax machines and desktop computers during the idling period by installing intelligent power bars. It was anticipated that the energy saving would be around 1.12% of the total consumption of the whole premises.



Intelligent power bar to save standby power

ArchSD Sustainability Report 2013 - Resources Utilization and Conservation - In-house Green Management

In APB Centre, we have conducted energy audit over the past few years to acquire information on how building energy is utilised as well as to identify potential opportunities to improve the energy performance. The annual electricity consumption decreases by 4.4% in the second year (from Dec 2010 to Nov 2011) and 3.8% in the third year (from Dec 2011 to Nov 2012) against the base year (from Dec 2009 to Nov 2010). We installed 108 solar panels on the roof-top for generating the electricity power. Two green roofs were also installed to reduce heat absorbed into the building so the cooling load can be greatly reduced. Furthermore, the LED recessed light fittings were also installed in different functional areas such as corridors to further reduce the energy consumption for lighting.



Photovoltaic panels installed on the roof top



Photovoltaic power production monitoring panel



Green roof installed to reduce heat absorbed into the building



LED lamp with motion sensor installed

ArchSD Sustainability Report 2013 - Resources Utilization and Conservation - In-house Green Management

In 2012, our Department was awarded "Class of Good" Energywise Label of Hong Kong Awards for Environmental Excellence (HKAEE) to appreciate our effort in energy saving. In addition, the HKAEE presented us with a special award to recognise our achievements in attaining significant energy reduction under the Energywise Label. In 2013, we further obtained the "Class of Excellence" Energywise Label.



Certificate of Energywise Label (left) and a special award in the Energywise Label of HKAEE (right)

We have appointed Green Wardens in each division or section to raise the environmental awareness amongst staff and to identify opportunities for continual improvement in our offices. The Green Wardens are responsible for regularly inspecting office areas to check the effectiveness of energy saving measures and to check that all lighting, air-conditioning system and office equipment are switched off before leaving the premises after office hours. To recognise their contribution in environmental protection, a letter of appreciation was presented to the nominated Green Wardens.



Nominated Green Wardens received a letter of appreciation

Waste Management

To improve our waste management practices, we had established goals for improving our resource usage and reducing waste disposal. During the year, we achieved our goal of reducing 1% of A4 papers consumption. For both APB Centre and QGO Office, we also achieved our target of collecting 3% of used A3 and A4 papers for recycling. In addition, we achieved our target of reducing 2% envelope usage and received the "Class of Good" Wastewi\$e Label of HKAEE to appraise our efforts in waste management during the year.

To reduce waste disposal of office or electronic equipment, we worked proactively with our IT equipment suppliers to facilitate the reuse and recycling of computers in our offices.



Certificate of Wastewi\$e Label of HKAEE



Several bags of used paper were collected for recycling

Performing Good Indoor Air Quality

We understand that it is very important to maintain a good indoor air quality (IAQ) within our workplace. To achieve good IAQ in our offices, we put substantial efforts in maintaining our facilities and the results were highly recognised. In 2012, we were awarded "Class of Good" IAQwi\$e Label of HKAEE to recognise our effort in improving IAQ for our offices in QGO and APB Centre.



Certificates of IAQwi\$e for APB Centre (left) and Queensway Government Offices (right)

Green Procurement

Green procurement means purchasing products and services that cause minimal adverse environmental impacts. The HKSAR Government has required all bureaux and departments to take into account environmental considerations when procuring goods and services since 2000.

To align with the Government's commitment to promote green procurement, we execute the green procurement policy when purchasing products with green specifications in the Government procurement list. So far, there are over a hundred types of green products on the list, including office consumables, computer equipment and electrical appliances.

We would consider the following criteria during procurement:

- Minimal use of virgin material in the product;
- Replacement of disposables with reusables or recyclables;
- Minimal environmental impact from the entire product or service life cycle;
- Minimal packaging or elimination of packaging;
- Reduced energy / water consumption;
- Toxicity reduction or elimination;
- Durability and maintenance requirements; and
- Waste disposal requirements.

Sustainable Features in Site Offices

We have introduced a number of green initiatives at site offices to achieve sustainable operations. Highlights of our initiatives are:

- Adoption of passive design where they were located abutting external windows for natural light and ventilation;
- Provision of roof insulation through ventilated layer or green roof at the site offices;
- Application of light-coloured external finishes for reducing energy consumption;
- Usage of High Efficient T-5 lamps and LED lights and provision of "zoning" for light switches;
- Installation of timer switches for controlling the power supply of some non-essential power sockets;
- Adoption of bolt-and-nut connection to facilitate future dismantling and the reuse of building components;
- Modular dimensions for internal layouts to facilitate the reuse of partitions, furniture and equipments; and
- Usage of rainwater recycling for toilet flushing; plant watering and other site uses.



Provision of green roof at the site office



Use of highly energy efficient T-5 lamps and LED lights and provision of "Zoning" for light switches



Installation of timer switch for controlling the power supply of non-essential power sockets



Adoption of bolt-and-nut connection at the site office to facilitate the reuse of building components



Usage of rainwater recycling for toilet flushing; plant watering and other uses



Clients and Business Partners



Project Quality Management

We are committed to provide quality services to our clients on the buildings and the associated services for public facilities that are either funded or owned by the Hong Kong SAR Government. Working together with our supply chain partners, we endeavor to develop and uphold buildings with the latest technology and a high level of performance for the benefit of the general public, the prosperity of the city, as well as the protection of the environment.

Building Environmental Assessment Method (BEAM) Certification

Certifications based on BEAM or BEAM Plus assessment provide local recognition to buildings that use lesser energy, water and materials as well as lower carbon footprint than traditional structures. We have participated in the BEAM assessment since 1996. Up to the end of 2012, ArchSD has obtained certifications in 30 government buildings.

In 2012, ArchSD has 15 projects submitted for BEAM or BEAM Plus Assessment (5 projects awarded highest rating).

Buildings Achieved BEAM Certifications

HK-BEAM Version	Rating	No. of Building / Project
Version 1/96R & 2/96	Excellent	11
	Very Good	2
Version 4/04	Platinum	10
	Gold	7
Total		30

Green Contractor Award

Managing many local construction projects, we attempt excellence in quality building and environmental performance in our construction sites. We also encourage contractors to think and work "green" when carrying out daily operations. In order to recognise contractors which have demonstrated excellent and continual improvement in their environmental performance, we have established the annual "Green Contractor Award Scheme" and Year 2012 marked the twelfth year of the Scheme.

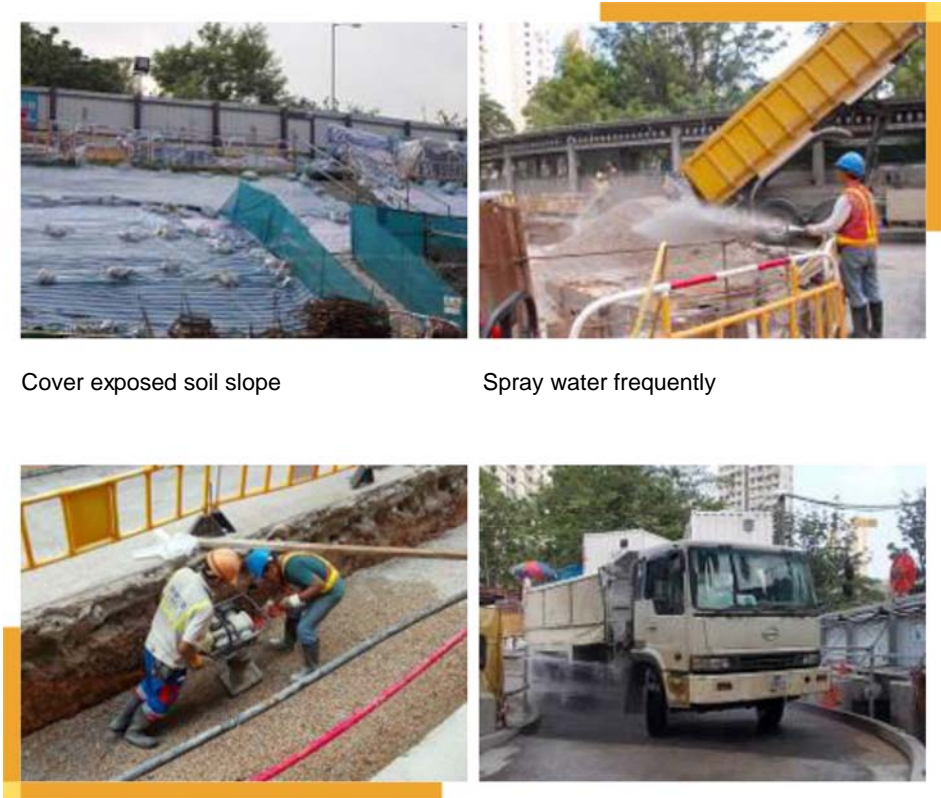
All our projects under construction during the year, including maintenance projects with contract sums exceeding HK\$30 millions, are eligible to participating in the Scheme. Contractors of those projects that have achieved top scores for their environmental performance will be granted the Green Contractor Award.



The Ceremony of Green Contractor Award 2012

The following sections highlight the sustainable measures implemented by the recipients of the Green Contractor Award 2012.

Air Quality Control



Cover exposed soil slope

Spray water frequently

Expose earth treated by surface compaction

Wash Wheels at site exit



Cover over grouting station and stockpile of cement



Vacuum cleaner for daily cleaning



Use Ultra Low Sulphur Diesel (ULSD) with regular testing for fuel on site to reduce air pollution



Adopt spray sprinkler system at site entrance



Seal off air duct system to prevent dust and pollutants accumulation



Install air blowers to improve ventilation in basement



Rinse vehicle wheels before leaving the site



Cover dump trucks with mechanical shields

Noise Abatement



Regular noise measurement



Colour code system and label to remind workers of restricted hours



Combination of drilling machine and breakers



Use chemical expansion agent to break rocks



Noise barrier / shield



Acoustic mat to lower noise impact



Acoustic jacket wrapped around hydraulic breaker



Use quality powered mechanical equipment

Waste Reduction and Management

Solid wastes are reused or recycled on site whenever feasible. For example:



1. Waste separation to assist recycling or reuse;
2. Plastic waste collected on-site and pelletized into reusable raw material through "Plastic Resources Acquisition Partnership Scheme";
3. Use floor decking made of recycled plastic materials;
4. Timber reuse for other construction sites;
5. Broken traffic cone reuse as umbrella stand;



6. Metal fence reuse from previous projects;
7. Used fence sent to different sites for reuse;
8. Banner reuse for beautification of site office;
9. Reuse excavated materials for backfilling;
10. Steel bars are to be recycled;
11. Wooden pallets are to be reused as far as possible;



12. Use Forest Steward Council (FSC) certified timber;
13. The used FSC certified timber materials were to be reused on site; and
14. Use FSC certified paper.

Reduce paper usage with:

1. Paperless meeting;
2. Recycling of red packets;
3. Waste paper and cartridges recycled;
4. Electronic site inspection; and
5. Electronic tool management system.





Wastewater Treatment



Wastewater treatment tank



Treated waste water for washing vehicles



Sewage treatment system



Monitoring effluent quality



Rainwater collected for watering plant and flushing toilet





Recycling water for pool and filtration plant system test

Energy Management



Building-integrated Photovoltaic (BIPV) Panel



Solar panel



Transparent sunroof



Metal roof and air gap to improve office ventilation



Using T10 LED light tubes



Motion sensor to switch off lighting in meeting room



Water heating with solar energy



Solar mosquito killing device



Energy saving reminder



Purchasing Class 1 Energy Label appliance

In-house Environmental Programmes

In-house Environmental Programmes were established to promote environmental awareness such as:

- Green and Caring Site Commitment and Award Scheme;
- Induction Trainings and Toolbox Talks;
- Chemical Spill Training and Drill;
- Play videos about environmental protection at rest area in site;
- Publish newsletters to residents outlining construction activities and pollution abatement measures;
- Provision of recognition to best performers on environmental performance; and
- Encourage staff involvement in community services on environmental protection issues.

Client Satisfaction Survey

In order to collect clients' feedback on our deliverables, ArchSD carries out Client Satisfaction Survey periodically. By setting clear targets and analysing actual results, we can benchmark our performance to assist the Department in improving service quality continuously.

The targets and actual achievement regarding Client Satisfaction Survey in 2012 are as follows:

Targets	Actual Achievement
100% of the completed projects to achieve Satisfied Level or above on the overall performance	Fully achieved (100%)
100% compliance with the target to enhance the communication with client by: a) replying within 2 months after the survey to follow up with the observations raised during the survey; b) informing client within 1 month after the final completion of all follow-up actions	Fully achieved (100%)
98% of works audited to achieve Satisfied Level or above on the overall performance	Fully achieved (99.6%)

For any comments or suggestions received through the Client Satisfaction Survey and other channels, we will keep proper records and follow up after internal review.



Clients and Business Partners



Social Participation

To facilitate communication with external stakeholders and experience sharing with industry peers and government representatives, ArchSD has organised and participated in a wide range of social activities. In 2012, the Department took part in a total of over 90 events, including exhibitions, group visits, conferences and seminars, talks and briefings, media interviews, etc.

Flower Show

Themed with "Flora Delights", Hong Kong Flower Show 2012 was organised by the Leisure and Cultural Services Department from 16 to 25 March at Victoria Park to showcase beautiful flowers, as well as landscape and floral designs. The Flower Show 2012 has attracted around 560,000 visitors in total.



ArchSD's Flower Display was well-received by the Public at Hong Kong Flower Show 2012

ArchSD Sustainability Report 2013 - Clients and Business Partners - Social Participation

The China Design Exhibition

The China Design Exhibition 2012 themed "Times•Creation" was held at Guan Shan Yue Art Museum in Shenzhen from 7 December 2012 to 26 February 2013.

More than 130 projects from four design disciplines (i.e. graphic design, product design, space design and crossover design) were being selected for the exhibition. ArchSD's Diamond Hill Crematorium Project was honoured to be invited for this public demonstration.



Miniature of ArchSD's Diamond Hill Crematorium Project Pavilion was displayed at the China Design Exhibition 2012

Experience Sharing Events

InnoCarnival 2012

As a part of our social responsibility, we have been actively sharing these experiences in construction design and building with the industries and the general public. Our department set up a booth to showcase our projects and services to the general public in the InnoCarnival 2012. The event was organised by the Innovation and Technology Commission (ITC) at the Hong Kong Science and Technology Parks in November 2012.



Exhibition panels displayed in the InnoCarnival 2012

Environmental Conference 2012

Our Assistant Director (Building Services), Mr. S. K. Ho, JP was invited as one of the guests to share the Hong Kong's sustainability challenges and opportunities in an environmental conference in November 2012. He mentioned that ArchSD will continue to support Government to take the lead to implement energy efficiency in its buildings after the launch of Building Energy Efficiency Ordinance.



Our Assistant Director (Building Services), Mr. S. K. Ho, JP (centre) participated in an environmental conference

Science Talk in SIPS 2012

Our Senior Project Manager, Mr. Laurence Kwan Wai Ming also delivered a talk with a topic "Indoor Air Quality" at Science Museum in December 2012.



Our Senior Project Manager, Mr. Laurence Kwan Wai Ming (right) was presented with a souvenir in a public science talk



Clients and Business Partners



Community Support and Engagement

Through our diversified building design, construction and maintenance projects, the Department is committed to delivering a high level of quality services for the benefits of the community. Prominent projects carried out in 2012 are presented below.

North Lantau Hospital

To support the strategic development of North Lantau Island and to meet the demand of growing population in the nearby community, the Government has decided to establish a new hospital in Tung Chung, located in the northern part of the Lantau Island. ArchSD was commissioned to carry out the development of the hospital from 2010 to 2012. The eight-storey hospital block will be able to offer a total capacity of 160-beds, with surrounding external greenery area and walkway to link up the adjacent On Tung Street and Chui Kwan Drive. The construction floor area was about 43,000m².



Bird View of North Lantau Hospital (Artist's Impression)

Special School in Tuen Mun

ArchSD was engaged in developing a new school premises for the Hong Kong Christian Service Pui Oi School in Tuen Mun to assist the implementation of the New Senior Secondary (NSS) academic structure for special schools. The project was completed in 2012, with a total construction floor area of 12,350m². The school will provide additional classrooms, boarding places and ancillary facilities to meet the requirements of the NSS academic structure to students with physical disability. Establishing a designated "Green Corner" to cultivate students' interests in horticulture and natural environment, the school is featured with over 4,300 m² of landscaping area. The beautiful greenery consists of ground floor greening, green roof, and vertical greening with weeping shrubs on planters next to the building wall and bridge.



View of the Classroom Block (Artist's Impression)



View of the Boarding Block and Assembly Hall Block (Artist's Impression)

Sport Centre and Community Hall in Tin Shui Wai

With over 13,000m² of gross floor area and close to 780m² of landscaping, roof top and vertical greening area, the Sport Centre and Community Hall is located in Area 101, Tin Shui Wai. As a modern recreational complex for the community, the building offers a range of facilities for public usage. Besides the main arena, the building also presents the multi-purpose activity room, table tennis room, dance room, children's play room, conference room, cycle parking spaces and ancillary facilities.



Impressive Outlook of Sport Centre and Community Hall in Tin Shui Wai

Redevelopment of Victoria Park Swimming Pool

Situated at the North-east corner of the Victoria Park, the Victoria Park Swimming Pool Complex was first opened in 1957, and is one of the most popular swimming pool complexes in the city. To upgrade the facilities, enhance the hygiene level, and provide a standard indoor heated pool that meets the latest international standards, the Redevelopment of Victoria Park Swimming Pool was commenced in late 2009 and scheduled for completion by 2015. The new Swimming Pool Complex covers a 50x25-metre indoor heated main pool, a 33x25-metre indoor heated multi-purpose pool, 2,500-seat spectator stands, as well as ancillary facilities. The project adopted a number of innovative and effective noise controls and environmental measures during the construction stage, and was awarded the Gold Award (Construction Sector) of the Sectoral Awards of 2012 Hong Kong Awards for Environmental Excellence.



Outside and Inside View of the New Victoria Park Swimming Pool Complex

Architectural Design Competition for Cycle Track

As part of the public cycle track network in New Territories implemented by Civil Engineering and Development Department (CEDD), the proposed cycle track between Serenade Cove and Ting Kau will feature a 10 km bridge construction and a unique waterfront environment. The cycle track will provide public facilities such as the Resting Stations and Entry/Exit Hub near Serenade Cove. In August 2012, an architectural design competition with regard to the cycle track was organised by CEDD in collaboration with ArchSD and other Government Departments. The competition invited Senior and Professional Architects / Landscape Architects to contribute their innovative ideas to develop the cycle track into a unique, vibrant and people-oriented setting in harmony with the nature. The competition was also transformed into one of our internal staff motivation schemes to encourage participation.



Architectural Design Competition for the Cycle Track between Serenade Cove and Ting Kau



Clients and Business Partners



Servicing the Community

The Department encourages staff's involvement in volunteer services for the community through different activities. Our Volunteer Service Team has served 1,927 hours in 2012 for supporting 47 events.

Staff Volunteer Service

	2012	2011	2010	2009	2008
Total number of hours of staff volunteer service	1,927	1,666	1,557	2,065	2,129
Number of active Voluntary Service Team members ^{Note 1}	27	24	21	25	26
Number of staff received commendation for voluntary service ^{Note 2}	19	18	18	21	13
Number of Volunteers	54	53	48	71	48
Number of Voluntary Projects Completed	47	52	67	44	53

Note 1 - Active Volunteer Service Team member is defined as team member contributes more than 20 hours on volunteer service.

Note 2 - Staff who receives commendation for volunteer service is defined as team member contributes more than 30 hours on volunteer service.



Our Volunteer Service Team



Visit a special school and decorate the wall



Participate in the Community Chest Green Day



Knitted keychain as Souvenirs for the elderly

Engagement with Youth

As part of the Hong Kong Institute of Architects (HKIA)'s Architecture Week 2012 activities, ArchSD hosted a student group visit on 12 October 2012. The participating students came from Pok Oi Hospital 80th Anniversary Tang Ying Hei College, Wah Yan College, Hong Kong, and School of Architecture, The University of Hong Kong. Besides providing a site tour for the students, our architect delivered a speech to help students acknowledge the nature of ArchSD and its working projects, in the way to encourage and inspire their future career development in related industries.



Staff provided briefing for students during their visit to ArchSD



Staff Development

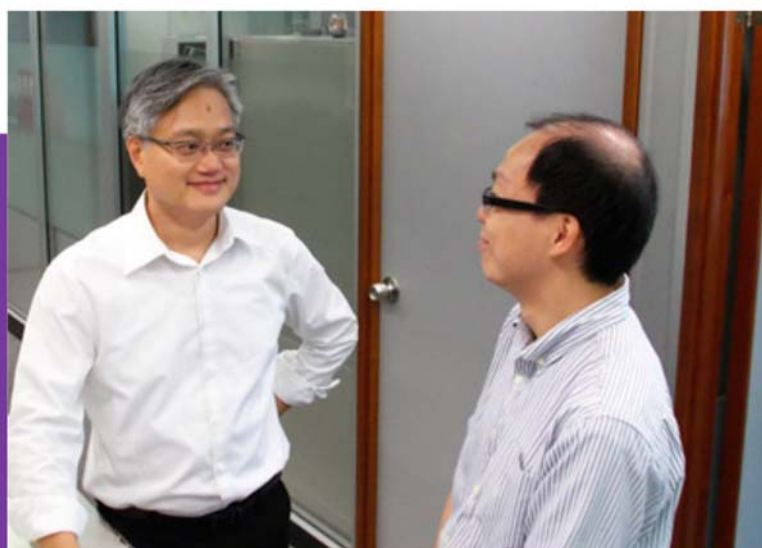
Staff is our most valuable assets. We strive to provide a dynamic workplace, with the best career development opportunities for each staff, in order to equip them with the necessary capability to achieve the strategic goals and shared objectives of the Department.

We have invested a considerable amount of resources in organising a varied range of staff development programmes tailored for their training needs. During the year, we organised a total of 240 training courses, covering topics related to Leadership & Management Skills, Professional & Vocational Training and Career Development. These training courses accounted for a total of 31,700 training hours and on average each staff has received about 18 hours of training.

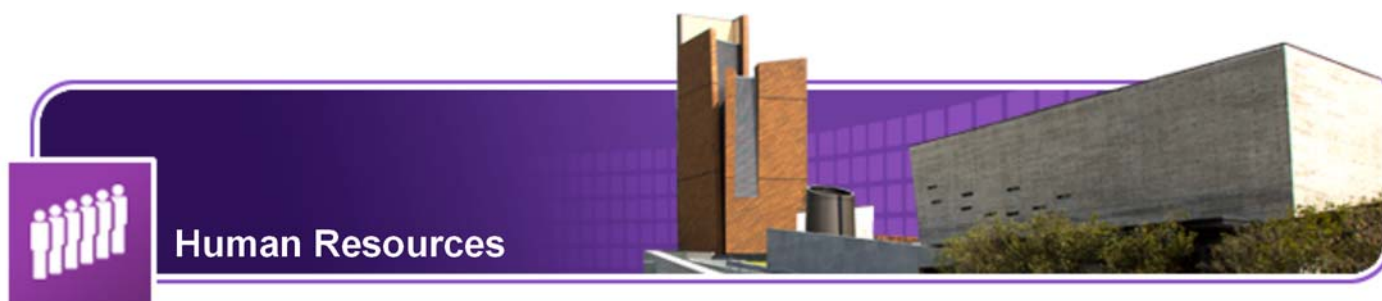
Training Type	No. of Trainees	No. of Training Hours
Leadership & Management Skills	27	1,813
Professional & Vocational Training	3,851	24,024
Career Development	1,024	5,863
Total	4,902	31,700

Mentorship Schemes for New Recruits

The Mentorship Scheme aims to provide newly-recruited officers with psychological support and personal care from more senior members of the Department to help them integrate smoothly into the team. The mentoring relationship normally lasts for 6 months. The Scheme was piloted at the professional grades in 2010, and has extended to cover site supervisory and technical grades since 2011. Up to now, more than 120 new recruits have been benefitted from the Scheme.



Mentorship Scheme's duet: mentor Mr. Benedict YOUNG (left) and mentee Mr. Terence CHAN (right)



Staff Engagement

Staff with commitment is essential to maintain our professional excellence and work productivity. We can never deliver quality services to the society without talents who are enthusiastic and dedicated in their works. Therefore, we strive to create the most inclusive, open and participatory working environment for our staff to realise and maximise their potential. We also proactively engage our staff to understand their views and concerns to cater for their needs.

Staff Motivation Scheme

The Scheme aspires to enhance our productivity and to improve the service quality and performance of our staff. Since 1993, we have organised a wide variety of initiatives to reinforce staff's awareness on our departmental performance pledges, meanwhile, to facilitate the team building among staff members.

During the year, we organised the following activities under the Staff Motivation Scheme:

- Schematic Architectural Design Idea Competition for the Proposed Cycle Track between Serenada Cove and Ting Kau

Our in-house architects have participated in the competition to produce architectural and landscape designs for a cycle track. The ideas generated will facilitate Civil Engineering and Development Department in developing a final design that is distinguished recreational facility that is well-blended with the environment in the vicinity.

- My Favourite Knowledge Hub

As a staff award scheme, "My Favourite Knowledge Hub" has been organised for the Knowledge Management Managers to present their individual knowledge hub to encourage experience sharing between different projects. Our colleagues have also actively participated in the online voting to select their most favourite hubs, which competes in the criteria of "Aesthetic", "Innovative", "Richness", "User-friendliness" and "Presentation".



On-line voting page with presentation videos for viewing

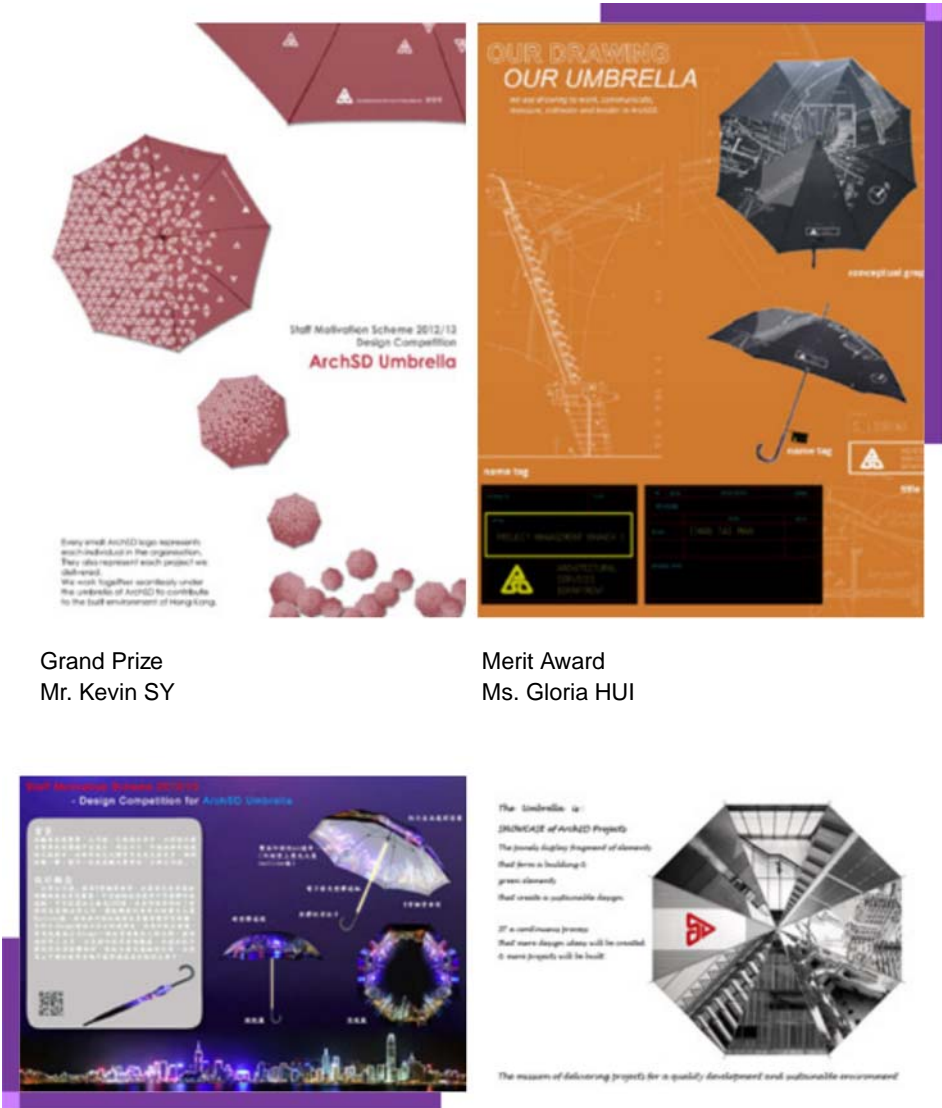


Presentation of Knowledge Hub to the adjudication panel

ArchSD Sustainability Report 2013 - Human Resources - Staff Engagement

■ Design Competition on "ArchSD Umbrella"

The competition aims to enhance staff morale and sense of belonging to the Department. We have received a number of applications from our colleagues. The designs of the winners are as follows:



Grand Prize
Mr. Kevin SY

Merit Award
Ms. Gloria HUI

Merit Award
Mr. Billy CHOW

Merit Award
Ms. Athena FUNG

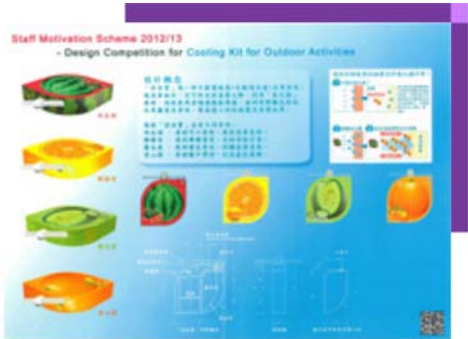
ArchSD Sustainability Report 2013 - Human Resources - Staff Engagement

Cooling Kit for Outdoor Activities

This design competition aims to arouse staff's awareness about the occupational safety when working in the hot weather. We have received many innovative concepts on the kit design that can effectively reduce the thermal impact, while help the staff looks "cool".



Design Entry 1



Design Entry 2

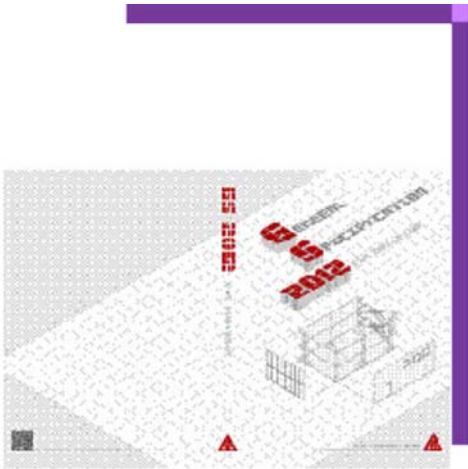
Competition of Cover Design for General Specification 2012

General Specification is a key controlling document detailing the standard technical requirements of quality and workmanship for the major trades of works for ArchSD construction contracts. The document sets the standard for best practices and has been widely adopted by the construction industry as reference and benchmark.

To echo the formal launch of the General Specification 2012, a creativity competition has been held to solicit innovative ideas from all ArchSD staff for the cover design.



Promotional poster of the competition

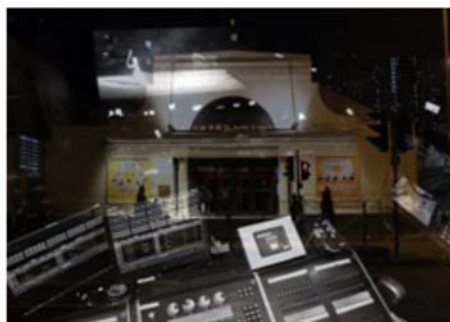


Cover design of the winner

ArchSD Sustainability Report 2013 - Human Resources - Staff Engagement

- Photographic Competition - Serve and Care for Our Community by Enriching the Living Environment through Quality Professional Services

To enhance staff communication and team spirit, we organised a photographic competition with the theme "Serve and Care for Our Community by Enriching the Living Environment through Quality Professional Services". We have received a number of high quality entries from colleagues.



Champion
油麻地戲院 - 粵劇舞台



First runner up
Freshen up the Environment for the Public



Second runner up
生活建築・建築生活



Third runner up
從BS看世界

ArchSD Sustainability Report 2013 - Human Resources - Staff Engagement

■ Design Competition on 'Site Safety Measures'

In order to foster continual site safety improvement at our construction sites, a competition has been held for all site supervisory staff to submit entries related to either "Unsafe Condition on site" or "Unsafe Act on Site". Recommended improvement measures specific to the unsafe condition/act illustrated are also provided so as to broaden the safety knowledge and awareness of site staff.

■ Technical Presentations

As in the previous years, this activity has been organised to provide a platform for our young graduate engineers to deliver technical presentations. The audience comprises colleagues from the Structural Engineering Branch. This activity fosters internal sharing of professional knowledge and experiences.



Guest of Honour--Ir Prof PANG Tat-choi, Paul, Assistant Director of Buildings Department and Chairman of The Institution of Structural Engineers (HK Division)



Guest of Honour--Ir Prof CHAN Siu-lai, Department of Civil and Structural Engineering of the HK Polytechnic University and Deputy Chairman of Joint Structural Division of The Hong Kong Institution of Engineers



The activity drew to a successful end

ArchSD Sustainability Report 2013 - Human Resources - Staff Engagement

■ Teamwork in Action - Photo-taking/Video-taking Group Competition

The competition aims at building up the sense of belongings within the Quantity Surveying Branch. Groups from the branch were invited to submit photos or video to introduce their members and their work to other staff.



Gold Award – Group 1



Gold Award – Group SPM331



Silver Award – Group 2

ArchSD Sustainability Report 2013 - Human Resources - Staff Engagement

Competition on the Best Reply to Complaint

A competition has been organised for the Senior Maintenance Surveyor and Maintenance Surveyor grade colleagues to prepare formal replies to complaints. As part of Chinese course work, the competition helps our colleagues to practice writing skills in a practical setting. An Adjudication Panel chaired by our Assistant Director (Property Services) with advice from the course trainers has been established to assess the entries.



Competition promotion



Winner of the competition: Mr. Kenneth YUN

My Favourite Knowledge Paper

This award scheme focuses on recognising staff's devoted efforts to knowledge harvest and promoting the sharing of valuable knowledge papers among colleagues. The enrollment received was overwhelming — all nine Knowledge Hubs have their papers submitted, totaling 16 entries to compete for the Awards. About 400 colleagues have also casted their support to the scheme by voting their favourite papers online.



The competition came to a successful end following the prizes presented to the winners by Deputy Director of Architectural Services during the ArchSD Annual Dinner 2013

ArchSD Sustainability Report 2013 - Human Resources - Staff Engagement



Promotional poster of "My Favourite Knowledge Paper"



The online voting webpage

Staff Recreational Activities

Our dragon boat racing teams continue to splash their way across the water in the Dragon Boat Racing Competitions held in Chai Wan, Shatin, Tai O and Sai Kung. This festive event has become an important occasion for our staff to showcase their team spirit and sportsmanship.



Our dragon boat racing teams splashing their way

Our energetic team members from different units have joined forces to participate in various competitions as well as charity events to show our support for their causes. These include the Hong Kong Institute of Architects (HKIA) Sport Day and Oxfam Trailwalker.



HKIA Sport Day



Our Trailwalker Team

Other staff recreational activities have also been organised throughout the year.



Inter-branch Badminton Competition



A grand day out on bikes at Kam Tin



Hiking and BBQ at Tai Tong



Health and Safety

We place utmost emphasis on the well-being of our staff and strive to provide a safe and healthy workplace for them. We also work closely with our staff, partners and contractors to promote and maintain the best standards and practices on health and safety issues.

Monitoring and Supervision of Health and Safety

During the year, we continue to adopt the 3-level site safety and environmental supervisory system for outsourced projects, and a 2-level system for in-house projects to gauge our performance.

To facilitate compliance with health and safety standards, we have established a collection of guidance notes, lessons learnt, briefing notes, safety audit reports, etc. on a number of key topics on site safety and environmental management. Our staff members, partners and contractors can make reference to these materials in order to meet the associated health and safety requirements of each project they are working on.

In addition, our Department Safety & Environmental Advisory Unit (DSEAU) have carried out regular safety and environmental inspections, independent site assessments on mosquito control/site cleanliness and tidiness, and have conducted 3 full-scale independent in-house audits on the contractors' performance respectively on the aspects of (i) working in hot weather; (ii) working at height; and (iii) electrical safety.

Promotion of Health and Safety

Workers' health and safety is the cornerstone of our daily operation. In the past year, we have organised a wide array of health, safety and environmental promotion activities including:

Considerate Contractors Site Award Scheme

- a. 19 contracts have participated in Considerate Contractors Site Award Scheme 2012 jointly organised by the Development Bureau and the Hong Hong Construction Industry Council. Among these 19 contracts, 4 contracts have received the following awards:
- b.

Contract no.	Considerate Contractors Site Awards	Outstanding Environmental Management & Performance Awards
SS X301	Merit	Merit
SS Y304	Merit	--
TC W012	Merit	Merit
SS T329	Merit	Bronze

Site Safety Model Worker Award Scheme

- c. 37 contracts have participated in ArchSD's Site Safety Model Worker Award Scheme

ArchSD Sustainability Report 2013 - Human Resources - Health and Safety

Construction Design & Management

- d. 25 projects have been implementing Construction Design & Management.

Training

- e. 578 staff in total have taken or renewed their Green Card (Mandatory Basic Safety Training Course) via completing Construction Industry Council Training Academy's multi-media self-learning package.
- f. 21 external training courses have been conducted for a total of 494 professional/technical/site staff.
- g. 5 in-house seminars comprising topics on electrical safety, ladder safety, metal scaffolding safety, general safety on maintenance works, have been conducted for a total of 360 attendees of in-house staff, contractors and consultants.

Other Initiatives Relating to Site Safety

A number of initiatives have been implemented during the year to further enhance the health and safety performance in our projects. These initiatives include:

- a. Implementation of a permit-to-move and operate system in new contracts to enhance mobile crane safety in construction site.
- b. Promulgation of guidance notes and lesson learnt including:
 - i. Guidance Notes on Bamboo Scaffolding Safety;
 - ii. Guidance Notes on Falsework Safety;
 - iii. Lesson Learnt on Collapse of Bamboo Scaffold; and
 - iv. Lesson Learnt on Collapse of Falsework during Concreting.
- c. Promulgation of new or revised site safety checklists including:
 - i. Electrical safety;
 - ii. Works at height;
 - iii. Working in hot weather; and
 - iv. Fire safety.
- d. Promulgation of new or revised materials related to site safety and environmental protection including:
 - i. PowerPoint on Electrical Safety
 - ii. Sample Tool-box Talk on Mosquito Control on Construction Sites (Version 2012); and
 - iii. Training Kit for Site Safety and Environmental Supervision.



Objectives and Targets



To continually improve our sustainability performances, we have established different objectives and targets to ensure we are on the right track. In 2012, we achieved most of our environmental, project quality and social targets. Details of our achievements in 2012 and the targets for 2013 are tabulated below.

On Environmental Issues

Long Term Objectives	Targets for 2012	Achievements	Target Compliances	Targets for 2013
Reduce water consumption	All water taps in new projects shall be Grade 2 or above under the Voluntary Water Efficiency Labelling Scheme (WELS) of WSD unless there are genuine operational or technical needs for not doing so (such as water taps for cleansing clinical and laboratory use)	All water taps in the 11 new projects are Grade 2 or above under WELS of WSD except due to genuine operational or technical needs	Complied	2012 targets to be maintained in 2013
	In not less than 80% of new projects, either rainwater/ condensate water/ grey water recycling system should be installed	92.9% (13 out of 14) of projects complied with the target	Complied	2012 targets to be maintained in 2013
Reduce water consumption	To achieve OTTV standard of less than 23 W/m ² for 100% of all new projects with air conditioning installations, and 70% of these projects to achieve an even lower OTTV of not more than 18 W/m ²	100% (5 out of 5 projects) of all new projects with air conditioning achieved with OTTV less than 23 W/m ² , and 80% (4 out of 5 projects) of projects achieved OTTV less than 18 W/m ²	Complied	2012 targets to be maintained in 2013

ArchSD Sustainability Report 2013 - Objectives and Targets

Improve visual and air quality of our city	<p>All new projects shall provide the percentage of site coverage of greenery as specified below unless there are genuine operational or technical needs for not doing so:</p> <p>a) For project with site area $\geq 1,000\text{m}^2$ but less than $20,000\text{m}^2$ - minimum 20% site coverage of greenery (with minimum 10% coverage at pedestrian zone);</p> <p>b) For project with site area $\geq 20,000\text{m}^2$ - minimum 30% site coverage of greenery (with minimum 15% coverage at pedestrian zone);</p> <p>c) Features that may improve the micro-climate such as water features, grass paver, vertical greening and landscape-treated slopes/ retaining structures are also accepted for computing not more than 30% of the total required greenery areas</p>	<p>100% (6 out of 6 projects) of new projects where site area is $\geq 1,000\text{m}^2$ but less than $20,000\text{m}^2$ have achieved over 20% site coverage of greenery. Apart from the above, one project (18NB - Re-construction of Coffin Burial Ground at Wo Hop Shek Cemetery) has been exempted from providing the minimum percentage of greenery coverage</p>	Complied	<p>All new projects with Technical Feasibility Statement (TFS) approved before 18/6/2012 shall provide minimum percentage of site coverage of greenery according to the site area unless there are genuine operational or technical needs for not doing so.</p>
Promote a healthy and sustainable development	<p>55% of the new in-house and outsourced projects with Capital Project Estimate (CPE)/ Approved Project Estimate (APE) greater than \$30 millions shall use pulverised-fly ash (PFA) concrete</p>	<p>71.4% (5 out of 7) of the new projects have used PFA concrete</p>	Complied	<p>60% of the new in-house and outsourced projects with CPE/ APE greater than \$30 millions shall use PFA concrete</p>

ArchSD Sustainability Report 2013 - Objectives and Targets

Improve Green Housekeeping Management	To reduce A4 paper consumption by 7.5% as compared with the base year 2005	Actual consumption of A4 paper in 2012 was 18,330 reams. With data normalised, there were 36.4% and 11.1% saving when compared with 2005 and 2011 respectively	Complied	2012 targets to be maintained in 2013
	To reduce electricity consumption (kWh/m ²) (exclude A/C system) by 4% at QGO as compared with the base year 2007	Actual electricity consumption in 2012 was 1,104,181 kWh. With data normalised [1], the consumption was 1,044,206 kWh. There was 16.8% and 2.3% saving when compared with 2007 and 2011 respectively	Complied	To reduce electricity consumption (exclude A/C system) by 5% at QGO as compared with the base year 2007
	To reduce electricity consumption (kWh/m ²) by 4% at APB Centre as compared with the base year 2007	Actual electricity consumption in 2012 was 2,618,723 kWh. With data normalised [1], the consumption was 1,881,352 kWh. There were 17.2% and 8.6% saving when compared with 2007 and 2011 respectively	Complied	To reduce electricity consumption by 5% at APB Centre as compared with the base year 2007

[1] The electricity consumption was normalised with the consideration of number of server rooms and number of staff.

On Project Quality Issues

Long Term Objectives	Targets for 2012	Achievements	Target Compliances	Targets for 2013
Improve the quality of our services and project delivery	To monitor the expenditure on Capital Works Programme (CWP) projects within ArchSD's purview against the original estimates, ensuring that the under-spending does not exceed 5% of the corresponding provisions in the Printed Estimates	Original Estimate was \$12,174.5 millions. As at 31/12/2012, the outturn forecast is \$11,879.8 millions, which represents an under-spending of \$294.7 millions (2.4%) when compared to the Original Estimate	Complied	2012 targets to be maintained in 2013
	100% of the surveyed projects to achieve Satisfied Level or above on the overall performance in Client Satisfaction Survey	100% (27 out of 27 projects) of the surveyed projects have achieved Satisfied Level or above on the overall performance	Complied	2012 targets to be maintained in 2013
	To prepare not less than 2 nos. of Equipment Schedule / Proforma Specification for building services installations	"Proforma Particular Specification for Plumbing and Drainage Installation" and "Revision of Proforma Particular Specification for Rainwater Recycling Installation" were prepared accordingly	Complied	To update and review not less than 2 nos. of Equipment Schedule / Proforma Specification for building service installations.
	To commence not less than 90% of new Public Works Programme (PWP) projects scheduled in 2012 in accordance with the commencement dates committed in the 2011 Resource Allocation Exercise (RAE)	78.6% (11 out of 14) of new projects commenced works in 2012	Not complied	2012 targets to be maintained in 2013

On Social Issues

Long Term Objectives	Targets for 2012	Achievements	Target Compliances	Targets for 2013
Minimising accident rate for ArchSD staff	Accident rate for ArchSD staff should be not more than 2 occupational injuries per 1,000 staff per year	There were 4 reportable accidents of ArchSD staff in 2012, equivalent to an accident rate of 2.23 reportable accidents per 1,000 staff per year. As 2 of the 4 reportable accidents of ArchSD staff relate to manual lifting, the following actions have been taken: - An e-mail on "OHS information Manual Handling Operation" was issued to all colleagues to promote the good practices on manual handling - 40 colleagues have attended training on manual handling	Not complied	2012 targets to be maintained in 2013
Minimising the accident rate in ArchSD contracts	Accident rate in ArchSD contracts should be less than 0.6 reportable accident per 100,000 man-hours worked	0.32 reportable accidents per 100,000 man-hours worked	Complied	2012 targets to be maintained in 2013
Maintaining safety and health awareness of professional, technical and site supervisory staff, consultants and contractors with in-house briefing	At least 4 in-house workshops on safety and health should be organised	5 in-house workshops / seminars were organised	Complied	2012 targets to be maintained in 2013
Promoting the awareness on safety and health amongst construction workers	At least 40% of ArchSD contracts would participate in the ArchSD Site Safety Model Worker Award Scheme	65% (41 out of 63) of ArchSD contracts participated in Safety Model Worker Award Scheme	Complied	2012 targets to be maintained in 2013
Promoting the awareness on safety and health amongst contractors	At least 45% of ArchSD eligible new works contracts and 35% of eligible maintenance term contracts would participate in Development Bureau Considerate Contractors Site Award Scheme (CCSAS)	86% (12 out of 14 contracts) of eligible ArchSD new works contracts and 47% (7 out of 15 contracts) of eligible maintenance term contracts participated in CCSAS 2012	Complied	2012 targets to be maintained in 2013

ArchSD Sustainability Report 2013 - Objectives and Targets

Strengthening health and safety knowledge for project staff with external training	At least 12 external safety training courses on latest safety technology, current safety legislation, accident investigation, etc. should be arranged for project and office staff per year	21 external training courses were arranged with 494 attendants from professionals, technical staff and site staff	Complied	2012 targets to be maintained in 2013
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Data Summary

Performance Data

Environmental Performance

Resources Usage - Energy

	Units	2012	2011	2010	2009	2008
Electricity consumed (QGO and APB Centre) [1]	kWh/m ²	234	234	236	238	244
CO ₂ emission equivalent to electricity consumption (QGO and APB Centre) [2]	Tonnes CO ₂ e	3,967	3,967	4,001	4,027	4,071
Energy saved due to energy efficient installations [3]	GWh	9.58 [4]	17.26 [4]	16.66 [4]	1.35	1.7
Equivalent monetary savings	HK\$ million	9.58	17.26	16.66	1.35	1.7
Avoided CO ₂ emissions [3]	in ,000 Tonnes CO ₂ e	6.71 [5]	12.08	11.66	0.95	1.19

[1] Offices in QGO and APB Centre represent a majority of total ArchSD office space.

[2] Territory wide default GHG emission factors (0.7) were used based on the Guidelines to Account for and Report on Greenhouse Gas Emissions and Removals for buildings (Commercial, Residential or Institutional Purpose) in Hong Kong issued by the Environmental Protection Department, HKSAR in February 2010.

[3] The data obtained from 2007 onwards take Building Energy Code (BEC) 2007 as the baseline, energy efficient features refer to air-conditioning installations, lighting installations, hot water installations, lift & escalator installations, building energy management system and renewable energy technologies.

[4] In 2010, 2 large-scale completed projects including a Government Departmental Headquarters and a Hospital Extension Block contributed to the major increase. In 2011, the Tamer Development Project was completed and contributed to most of the energy saving. In 2012, the New CAD Headquarters and North Lantau Hospital Phase 1 contributed to most of the energy saving.

[5] The conversion of the carbon emissions avoided to the number of tree planted is calculated by the Greenhouse Gas Equivalencies Calculator developed by the U.S. Environmental Protection Agency.

Resource Usage - Fuel

	Units	2012	2011	2010	2009	2008
Fuel consumption by ArchSD's pool cars	Litre	13,998	13,263	17,723	17,236.2	14,697.4
GHG emission equivalent to fuel consumption by ArchSD pool cars [6]	Tonnes CO ₂ e	37.9	35.9	48.0	46.7	39.8

[6] GHG emission factors for mobile combustion are based on the Guidelines to Account for and Report on Greenhouse Gas Emissions and Removals for buildings (Commercial, Residential or Institutional Purpose) in Hong Kong issued by the Environmental Protection Department, HKSAR in February 2010.

Resource Usage - Office Materials

	Units	2012	2011	2010	2009	2008
A4 paper consumption	Reams	18,325	19,240	20,021	20,536	19,653
A3 paper consumption	Reams	934	953	1,068	1,203	1,054
Envelop consumption	Number	53,318	54,541	58,470	56,538	59,478

ArchSD Sustainability Report 2013 - Data Summary

Waste Management

	Units	2012	2011	2010	2009	2008
Construction & demolition materials						
C&D waste disposed of to landfills	Tonnes	46,261	66,541	69,716	56,529	26,833
C&D materials disposed of to public fill areas	Tonnes	556,560	681,987	894,710	930,831	839,097
Recyclable waste collected at APB Centre						
Waste paper	kg	19,375	23,450	26,630 [7]	18,164 [8]	2,331
Aluminium cans	No.	8,407	11,000	13,440 [7]	4,354 [8]	277
Plastic bottles	No.	3,690	4,748	6,805 [7]	1,467 [8]	286

[7] APB Centre was committed to the EPD's Source Separation Programme of Commercial and Industrial Waste for classifying daily recyclable wastes including waste paper, aluminum cans & plastic bottles. Our staff are well aware on this housekeeping arrangement.

[8] APB Centre joined the Source Separation Programme of Commercial and Industrial Waste in March 2009. The cleaners are requested to report the volume of the collected recycled items to our General Registry. The significant increase in the figure was that we enhanced our control to record the recycled items from monthly basis to a weekly basis and the figure would be reported to EPD.

Environmental Convictions Of Contractors

	Units	2012	2011	2010	2009	2008
Convictions per 100,000 man-hours	ArchSD sites (HK sites)	0.336 (0.606)	0.159 (0.499)	0.164 (0.437)	0.138 (0.909)	0.501 (1.397)
Monetary value of significant fines	HK\$	61,000	51,000	39,000	35,500	35,500

Environmental Expenditure

	Units	2012	2011	2010	2009	2008
Resources devoted to environmental works	HK\$ million	1,101.09	1,117.78	951.76	864.7	789.3
Percentage of annual expenditure	%	11.7%	9.1%	7.9%	10.0%	10.3%

Social Performance

Staff

	Units	2012	2011	2010	2009	2008
Staff establishment (As at March 31 each year)	No.	1,792	1,781	1,780	1,776	1,766
Training						
No. of training courses (including internal and external seminars/ workshops/ training courses/ visits)	No.	240	205	160	148	152
Numbers of trainees	No.	4,902	4,784	3,836	4,460	3,492
Injury						
Staff injury cases [9]	No.	4	7	4	5	0
Staff sick leave granted for staff injury cases	Days	119.5 [10]	109	78	85	0

[9] The definition of staff injury cases is the reported cases of occupational injuries, under Employee's Compensation Ordinance, resulting in death or incapacity for work over 3 days.

[10] There are 2 cases not yet included as the number of sick leave concerned is under dispute.

Staff Establishment Breakdown

By Post		
Directorate	%	2
Professional	%	23
General Staff	%	21
Site Staff	%	32
Technical	%	22
By Employment Type		
Full-time	%	100
By Employment Contract		
Permanent (male)	%	68%
Permanent (female)	%	27%
Contract (male)	%	3%
Contract (female)	%	2%
By Age		
Age under 30	%	3.9%
Age 30-49	%	48.8%
Age 50 or above	%	47.3%
By Ethnicity		
Local	%	100%
Non-local	%	0%
By Gender		
Male	%	71%
Female	%	29%

Training Hours Breakdown [11]

Type of Staff	Total Training Hours Received (hours)	Training Hours Per Staff (hours)
Directorate Staff	1,320	34
Professional Grade Staff	16,566	40
Technical, Site Supervisory and General Grade Staff	13,815	10

[11] As there is no distinct requirement regarding receiving training in terms of gender, therefore we do not report the data broken down by gender.

Anti-corruption Training

Type of Staff	Number of Staff Participated Anti-corruption Training	Percentage of Staff Participated Anti-corruption Training
Directorate Staff	0	0%
Professional Grade Staff	19	5%
Technical, Site Supervisory and General Grade Staff	46	3%

ArchSD Sustainability Report 2013 - Data Summary

Staff Turnover

	Male	Female
Age under 30	0.2%(3)	0.1%(2)
Age 30-50	2.2%(38)	0.4%(7)
Age 51-55	0.7%(12)	0.1%(1)
Age 56-60	1.9%(33)	0.5%(9)

New Employee Hires

	Male	Female
Age under 30	0.2%(3)	0.1%(1)
Age 30-50	1.9%(32)	0.4%(7)
Age 51-55	0.1%(1)	0%(0)
Age 56-60	0%(0)	0%(0)

Contractor's Accident Rate

	Units	2012	2011	2010	2009	2008
No. of fatalities	ArchSD	(Male: 4, Female: 0)	2 (Male: 2 , Female: 0)	0	2	1
Fatal accident rate per 100,000 man-hours [12]	ArchSD (HK Construction Industry)	0.013 (0.009)	0.0052 (0.010)	0 (0.005)	0.0072 (0.011)	0.0053 (0.011)
No. of non-fatal accidents	ArchSD	114	191	117	100	91
Non-fatal accident rate per 100,000 man-hours [12]	ArchSD (HK Construction Industry)	0.36 (1.23)	0.50 (1.38)	0.33 (1.45)	0.36 (1.52)	0.48 (1.71)

[12] The accident rate of the HK Construction Industry is based on the published statistics of the Labour Department and using a conversion of 1.67 accidents per 100,000 man-hours equivalent to 60 accidents per 1,000 workers per year.

Report Verification

Scope and Objective

Hong Kong Quality Assurance Agency ('HKQAA') was commissioned by the Architectural Services Department (ArchSD) of the Government of the Hong Kong Special Administrative Region to provide independent assurance of the ArchSD Sustainability Report 2013 ('the Report') which was prepared in accordance with the Core option of the G4 Sustainability Reporting Guidelines issued by the Global Reporting Initiative (GRI). The Report states ArchSD's major activities and achievements on sustainable development from 1 January to 31 December 2012. Besides, the financial data are reported for the financial year ended 31 March 2013.

Assurance Methodology

The assurance process was undertaken with reference to the AA1000 Assurance Standard ('AA1000AS') aiming to assessing the Report's adherence to the principles of Inclusivity, Materiality, and Responsiveness. In addition, reliability of the selected sustainability information and data was verified against the International Standard on Assurance Engagement 3000 ('ISAE 3000') – "Assurance Engagement Other Than Audits or Reviews of Historical Financial Information" for a reasonable level of assurance.

The assurance process consisted of:

- Identification and classification of statements, figures, charts and data sets to be verified.
- Verification of the selected representative sample of data and information consolidated in the Report, reviewing relevant documentation, interviewing responsible personnel with accountability for preparing the Report and crosschecking the raw data and evidence of the selected samples that support the reporting contents in order to reduce the risk of error or omission to an acceptably low level.
- Provision of recommendations to ArchSD for improvement of future reporting.

Independence

HKQAA was not involved in collecting and calculating the reporting data, or in the development of the Report. HKQAA's activities are independent from ArchSD.

Conclusion

The information presented in the Report provided a material and complete representation of the performance of ArchSD in the context of sustainable development. The verification team confirmed that the Report was prepared based on factual statements and that the data contained within the Report are accurate. It is a fair and honest representation of initiatives, targets, progress and performance on ArchSD's sustainable development achievements.

Overall speaking, the Report provides an adequate and fair account of ArchSD's sustainability performance on material aspects and demonstrates satisfactory disclosure of the Core options of the GRI's G4 Sustainability Reporting Guidelines.

Signed on behalf of HKQAA

A handwritten signature in cursive script, appearing to read 'Connie Sham'.

Connie Sham
Verification Team Leader
9 September 2013

GRI Content Index

This report was prepared in accordance with the Core requirements of Global Reporting Initiative (GRI) G4 Guidelines. The General Standard Disclosures and material Specific Standard Disclosures are presented below with either linkage to the reported section(s) or direct answer.

General Standard Disclosures		
General Standard Disclosures	Cross-reference/Comments	External Assurance
Strategy and Analysis		
G4-1 Statement from the most senior decision-maker of the organisation	Message from the Director	✓
Organisational Profile		
G4-3 Name of the organisation	About Us	✓
G4-4 Primary brands, products and services	About Us	✓
G4-5 Location of organisation's headquarters	About Us	✓
G4-6 Number of countries where the organisation operates	Hong Kong only	✓
G4-7 Nature of ownership and legal form	Part of the Hong Kong SAR Government	✓
G4-8 Markets served	Strategy and Management	✓
G4-9 Scale of the organisation	About Us Data Summary	✓
G4-10 Number of Employees	Data Summary	✓
G4-11 Percentage of employees covered by collective bargaining agreements	None. There is no collective bargaining legislation exists in Hong Kong but we have maintained various staff engagement channels such as the Departmental Consultative Committee, Joint Staff Consultation Group, Staff Motivation Scheme, Web Forum, Staff Relation Units and other staff associations.	✓
G4-12 Organisation's supply chain	Project Quality Management	✓
G4-13 Significant changes during the reporting period regarding size, structure, ownership or organisation's supply chain	About This Report	✓
G4-14 Explanation of whether and how the precautionary approach or principle is addressed by the organisation	Strategy and Management	✓
G4-15 Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organisation subscribes or endorses	About This Report Strategy and Management	✓
G4-16 Memberships in associations and/or national/international advocacy organisations	Strategy and Management	✓

ArchSD Sustainability Report 2013 - GRI Content Index

Identified Material Aspects and Boundary		
G4-17 Entities included in the organisation's consolidated financial statements or equivalent documents	About Us	✓
G4-18 Process for defining report content and the aspect boundaries	About This Report Main Focus Areas	✓
G4-19 Material aspects identified in the process for defining report content	Main Focus Areas	✓
G4-20 Aspect boundary within the organisation for each material aspect	Main Focus Areas	✓
G4-21 Aspect boundary outside the organisation for each material aspect	Main Focus Areas	✓
G4-22 Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement	Data Summary	✓
G4-23 Significant changes from previous reporting periods in the scope and boundary	About This Report	✓
Stakeholder Engagement		
G4-24 List of stakeholder groups engaged by the organisation	Engagement Approach	✓
G4-25 Basis for identification and selection of stakeholders with whom to engage	Engagement Approach	✓
G4-26 Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group	Strategy and Management Departmental Business Plan Engagement Approach Project Quality Management Social Participation Community Support and Engagement Servicing the Community Staff Development Staff Engagement We have regular engagement with members of each group: (i) annual appraisals for staff; (ii) quarterly performance reports for consultants and contractors; and (iii) Client Satisfaction Survey for clients.	✓
G4-27 Key topics and concerns that have been raised through stakeholder engagement, and how the organisation has responded to those key topics and concerns, including through its reporting	Engagement Approach	✓
Report Profile		
G4-28 Reporting period	About This Report	✓
G4-29 Date of most recent previous report	About This Report	✓
G4-30 Reporting cycle	About This Report	✓
G4-31 Contact point for questions regarding the report or its contents	Feedback	✓
G4-32 GRI Content Index, the 'in accordance' option the organisation has chosen and the reference to the External Assurance Report if any	GRI Content Index	✓

ArchSD Sustainability Report 2013 - GRI Content Index

G4-33 Policy and current practice with regard to seeking external assurance for the report	About This Report Report Verification	✓
Governance		
G4-34 Governance structure of the organisation	About Us Strategy and Management	✓
Ethics and Integrity		
G4-56 Organisation's values, principles, standards and norms of behaviour	Strategy and Management	✓

Specific Standard Disclosures			
Material Aspects	DMA and Indicators	Cross-reference/Comments	External Assurance
Procurement Practices	DMA	In-house Green Management Project Quality Management	✓
Procurement Practices	G4 EC9 Proportion of spending on local suppliers at significant locations of operation	In 2012, all our purchases were from local suppliers (defined as companies registered in Hong Kong).	✓
Energy	DMA	Low Carbon Building Design Objectives and Targets	✓
Energy	G4-EN3 Energy consumption within the organisation	Data Summary	✓
Energy	G4-EN6 Reduction of energy consumption	Data Summary	✓
Emissions	DMA	Low Carbon Building Design In-house Green Management Objectives and Targets	✓
Emissions	G4-EN15 Direct greenhouse gas (GHG) emission (Scope 1)	In-house Green Management	✓
Emissions	G4-EN16 Energy indirect GHG emissions (Scope 2)	In-house Green Management	✓
Emissions	G4-EN17 Other indirect GHG emissions (Scope 3)	In-house Green Management	✓
Emissions	G4-EN19 Reduction of GHG emissions	Data Summary	✓
Effluents and Waste	DMA	Low Carbon Building Design In-house Green Management Objectives and Targets	✓
Effluents and Waste	G4-EN23 Total weight of waste by type and disposal method	Data Summary	✓
Compliance	DMA	Strategy and Management	✓
Compliance	G4-EN29 Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	Data Summary	✓

ArchSD Sustainability Report 2013 - GRI Content Index

Supplier Environmental Assessment	DMA	Project Quality Management	✓
Supplier Environmental Assessment	G4-EN32 Percentage of new suppliers that were screened using environmental criteria	ArchSD only appoints contractors and suppliers from lists of relevant categories, which are maintained by the Government of HKSAR. The listed contractors and suppliers have to fulfill certain requirements, which are mainly related to the establishment of their companies, set out by the administrators of these lists. Contractors and suppliers are also required to achieve ISO 9001:2008, ISO 14001:2004 and OHSAS 18001:2007 certifications in order to be included in these lists.	✓
Employment	DMA	Staff Development Staff Engagement	✓
Employment	G4-LA1 Total number and rates of new employee hires and employee turnover by age group, gender and region	Data Summary	✓
Occupational Health and Safety	DMA	Health and Safety Objectives and Targets	✓
Occupational Health and Safety	G4-LA6 Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and by gender	Data Summary	✓
Training and Education	DMA	Staff Development	✓
Training and Education	G4-LA9 Average hours of training per year per employee by gender, and by employee category	Data Summary	✓
Training and Education	G4-LA11 Percentage of employees receiving regular performance and career development reviews, by gender and by employee category	All staff receive regular performance appraisal.	✓
Non-discrimination	DMA	Strategy and Management	✓
Non-discrimination	G4-HR3 Total number of incidents of discrimination and corrective actions taken	No incident of discrimination was reported in 2012.	✓
Anti-corruption	DMA	Strategy and Management	✓
Anti-corruption	G4-SO4 Communication and training on anti-corruption policies and procedures	Data Summary	✓

ArchSD Sustainability Report 2013 - GRI Content Index

Anti-corruption	G4-SO5 Confirmed incidents of corruption and actions taken	<u>Strategy and Management</u>	✓
Grievance Mechanisms of Impacts on Society	DMA	<u>Project Quality Management</u>	✓
Grievance Mechanisms of Impacts on Society	G4-SO11 Number of grievance about impacts on society filed, addressed, and resolved through formal grievance mechanisms	The number of public and media complaints filed, addressed, and resolved in 2012 was 355.	✓
Product and Service Labelling	DMA	<u>Low Carbon Building Design</u> ArchSD's capital projects are subjected to assessment with Building Environmental Assessment Method (BEAM Plus).	✓
Product and Service Labelling	G4-PR5 Results of surveys measuring customer satisfaction	<u>Project Quality Management Objectives and Targets</u>	✓

Glossary

Building Energy Codes (BEC)	Building Energy Codes is a suite of guidance that covers five aspects of installation practices, including lighting, air conditioning, electrical and lift & escalator installations. It stipulates the minimum energy performance standards (MEPS) of these installations practices.
Building Environmental Assessment Method (BEAM)	Quote from BEAM Society, "A means by which to benchmark and improve performance in the planning, design, construction, commissioning, operation and management of buildings." BEAM Plus is a comprehensive environmental assessment scheme recognised by the Hong Kong Green Building Council (HKGBC). Issued in 2012, BEAM Plus Version 1.2 for New Buildings and Existing Buildings is an enhanced from the earlier version in providing Passive Design as an alternative method for assessment."
Carbon Audit	A systematic and scientific approach to account for the greenhouse gas emissions arising from the operations of the buildings.
Carbon Footprint	The carbon footprint is the measurement of all greenhouse gases an individual produces in daily lives through burning fossil fuels for electricity, heating, transportation, etc, usually in the unit of tonnes (or kg) of carbon dioxide equivalent.
Considerate Contractors Site Award	It is an award to promote a considerate attitude and good site safety, health and environmental practices for both Public Works and non-Public Works sites.
Designated Projects	Designated projects are projects or proposals that may have an adverse impact on the environment. They are covered by the Environmental Impact Assessment Ordinance in which they are categorised into two schedules: Schedule 2 and 3. (Details please refer to A Guide to the Environmental Impact Assessment Ordinance .)
Environmental Impact Assessment (EIA)	A process to assess the potential environmental impacts and environmental benefits (in quantitative and qualitative terms) of a project in the early planning stages as well as identify any alternatives or mitigation measures.
Environmental Impact Assessment Ordinance (EIAO)	An Ordinance to assess the impact on the environment of certain projects and proposals, for protecting the environment and for incidental matters through the application of the EIA process and the environmental permit system.
Extranet	The ArchSD Extranet is a private secured web portal with restricted access to enhance communication and information exchange with external users such as consultants and contractors, and to streamline contract management of works projects undertaken by the Department.
Global Reporting Initiative (GRI)	A multi-stakeholder-governed institution which provides a framework for sustainability reporting, which is commonly used all over the world. This framework sets out the principles and indicators that entities can use to measure and report their economic, social and environmental performance. More than 5,000 organisations, including the owners of many of the world's leading brands, have declared their adoption of the Guidelines which have been prepared in accordance with the GRI. GRI launched its fourth generation of Sustainability Reporting Guidelines (G4) in May 2013. G4 emphasises on report materiality that encourages reporting organisations to provide only information that is critical to their business and stakeholders.

Green Building Awards (GBA)	Jointly organised by the Hong Kong Green Building Council and the Professional Green Building Council, GBA is a biennial industry award which aims to provide recognition to building-related projects with excellent performance and contributions in sustainability and the built environment. It also encourages the industry to transform the mainstream market towards wider adoption of sustainable planning, design, construction, management, operation, maintenance, renovation and decommissioning of buildings.
Green Contractor Award	Green Contractor Award is organised by ArchSD every year to appraise contractors that have excellent performance in construction sites through demonstrating their environmental and social conscious commitments with the implementation of effective green measures.
Greenhouse Gases	Greenhouse gases refer to those which are able to absorb and hold heat in the atmosphere, either occurring naturally (e.g. carbon dioxide, methane, ozone and water vapour) or exclusively resulting from human activities (e.g. hydrofluorocarbons).
Grey Water	Grey water is the wastewater generated from domestic activities such as hand washing and cloth laundering. It is suitable for reuse as landscape irrigation or even toilet flushing.
Hong Kong Energy Efficiency Registration Scheme for Buildings	This scheme was launched by the Electrical & Mechanical Services Department for promoting the application of Building Energy Codes since October 1998. It provides an official platform for interested parties to register their buildings which comply with BECs.
Important Tree	Important Trees are trees in the Register of Old and Valuable Trees, or any other trees that meet one or more of the following criteria: trees of 100 years old or above; trees of cultural, historical or memorable significance e.g. Fung Shui tree, tree as landmark of monastery or heritage monument, and trees in memory of an important person or event; trees of precious or rare species; trees of outstanding form (taking account of overall tree sizes, shape and any special features) e.g. trees with curtain like aerial roots, trees growing in unusual habitat; or trees with trunk diameter equal or exceeding 1.0 m (measured at 1.3 m above ground level), or with height / canopy spread equal or exceeding 25 m.
Knowledge Management (KM) Portal	KM portal is to manage the knowledge life cycle from generation, harvesting, formation of practice wisdom and sharing to publishing, monitoring and renewal. The whole process is manifested in the operational regime under a 3-tier system, i.e. the ArchSD Knowledge Bank (K-Bank), branches/divisions KM hubs and knowledge community workspace.
Leadership in Energy and Environmental Design (LEED)	The Leadership in Energy and Environmental Design (LEED) Green Building Rating System, developed by the U.S. Green Building Council (USGBC), provides a suite of standards for environmentally sustainable construction.
Microclimate Study	Microclimate study acts as an environmental performance factor of the site providing environmental characteristic of the site for the purpose of creating a sustainable environment which provides the greater comfort for the development.
Overall Thermal Transfer Value (OTTV)	A measure of the energy transferred through the envelope of a building and has a direct correlation with energy consumption.
Preliminary Environmental Review (PER)	<p>It is a study that determines the current environmental conditions of the project site through inspecting the potential environmental impacts associated with the project and recommending corresponding mitigation measures.</p> <p>All Government Projects are required to carry out PER at the early stage of the projects (Feasibility Study Stage).</p>

Practice Note for Authorized Persons and Registered Structural Engineers (PNAP)	<u>Practice Note for Authorized Persons and Registered Structural Engineers (PNAP)</u> have been issued since 1974. The Building Authority issues practice notes to authorised persons, registered structural engineers and registered geotechnical engineers from time to time to promulgate how the Authority applies and enforces the provisions of the Buildings Ordinance (BO) and its subsidiary regulations as well as other administrative and advisory matters in the administration of the BO.
Post Occupancy Evaluation (POE)	Post Occupancy Evaluation is a management tool tailor-made to evaluate the performance, assess the effectiveness of sophisticated building services systems after client occupancy, and to address clients' concerns on the functional requirements and energy consumption of their recently completed building projects.
Quality Building Awards (QBA)	QBA is jointly launched by nine professional organisations in Hong Kong at biennial intervals to present public recognition to buildings of outstanding quality that have demonstrated excellent teamwork. The Award aims to promote a collective commitment by the building industry to maintain the highest standards of professionalism and competitiveness.
Register of Old and Valuable Trees	The Leisure and Cultural Services Department, Agriculture, Fisheries and Conservation Department and Housing Department have identified some 500 Old and Valuable Trees on unleased Government land within built-up areas or tourist attractive spots in village areas to provide priority protection.
Stakeholder	It refers to individuals, groups or organisations which experience directly or indirectly the actions and policies implemented by an organisation.
Sustainable Development	Sustainable development is the development approach which meets the desires of the present and preserves the environment and natural resource for the future generations.
Testing and Commissioning (T&C)	Testing and Commissioning (T&C) is generally regarded as testing of equipment and systems separately, in order to ensure that they are safe and meet the design requirements.
Resource Allocation Exercise (RAE)	It is a practice to schedule activities and assign available resources in an economic way, so that predetermined constraints of resource availability and/or project time are not exceeded. Each HKSAR Government Department has to earmark an amount of Recurrent/Capital spending in October that to be included in the budget of the following year.
Universal Accessibility	The concept of Universal Design forms the backbone of Universal Accessibility. It is a design approach to a universally accessible standard in which all products, environments and communications will allow for the widest spectrum of our community regardless of diversity, age and ability.
U-value	The rate of heat flow through a material. It is measured as the amount of heat flow through 1m ² of the material for every degree difference in temperature each second.
Valuable Tree	Refers to the "valuable trees" in the Register of Old and Valuable Trees which are distinguished in the following categories: Trees of large size; Trees of precious or rare species; Trees of particularly old age (e.g. aged 100 or above); Trees of cultural, historical or memorable significance; and Trees of outstanding form.
Vertical Greening	Vertical greening is the application of a vegetative cover to a wall / vertical structure. It serves as the thermal insulation to building to moderate temperature and relative humidity to the site. It also helps in filtrating dust pollution, reducing noise pollution and enhancing the biological diversity of the building and its surroundings.

Feedback

Sustainability Report 2013

Thank you for reading our report. Your comments and suggestions for our continuous improvement are invaluable. Please take a few minutes to complete this form and send it back to us.

1. How strongly do you agree with the following statements about the report?

Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Additional comments
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Most relevant issues are covered.

Content is balanced and reliable.

Content is clear and easy to understand.

Structure and layout are rational and easy to use.

2. How would you rate the overall report?

Excellent	Good	Adequate	Marginal	Poor	Additional comments
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3. In accordance with the report, how would you rate our sustainability performance?

Excellent	Good	Adequate	Marginal	Poor	Additional comments
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4. What information would you like to see in future reports?

ArchSD Sustainability Report 2013 - Feedback

5. Other comments:

6. Which of the following best describes you?

Client of ArchSD

Government Department

Consultant / Contractor / Supplier / Construction Industry

Architect / Engineer / Landscape Architect / Surveyor

NGO

Academic / Education Sector

Staff of ArchSD

General Public

Other

If you would like to receive future reports / information from us, please provide your contacts:

Your Name:

Your Organisation:

Your Telephone:

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Thank you and we appreciate your feedback.

You may also print this page and fax to: +852 2596 0361 or contact our Integrated Management Unit by email to imu@archsd.gov.hk.

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