建築署
Architectural Services Department

SUSTAINABLE INNOVATION

Sustainability Report 2017

To explore **promising** and **sustainable features** for our projects

Where **advanced technology** and **construction activities** are integrated

ArchSD Sustainability Report 2017 - Table of Contents

Message from the Director

Welcome to the latest annual Sustainability Report of the Architectural Services Department, “Sustainable Innovation”, which outlines our development and achievements in adoption of innovative sustainable design to the public facilities we constructed and maintained in the year 2016.

Throughout the years, we have spared extra effort to incorporate sustainable innovative design in our projects. The Yuen Chau Kok Complex in Shatin is an example where we have adopted integrated architectural and building services design to maximize the use of natural day light and ventilation with a view to reduce energy consumption. More information on the project as well as other recent projects is available in the "Sustainable Building Design" section of this report.

To promote and drive knowledge sharing amongst our colleagues and stakeholders, we continue to make full use of our Knowledge Management system for managing and sharing of our accumulated knowledge and experience. In 2016, we have embarked upon developing an electronic project record keeping system. This system facilitates retrieval of projects information for reference and sharing, and in the long term, would largely reduce paper consumption.

We are deeply honored to have received numerous project awards granted by both local and international organizations in the year 2016. The Renovation Works of the Court of Final Appeal, winner of the HKIA Medal of the Year of Hong Kong, is clear illustration of our commitment to continuous development in building sustainability.

Finally, I would like to take this opportunity to express my sincere thanks to all colleagues and stakeholders for their contribution and continuous support. The Department is looking forward to receiving your valuable feedback for continuous improvement.

LEUNG Koon-kee, JP
Director of Architectural Services

Reporting Objectives

Architectural Services Department (ArchSD) of the Government of the Hong Kong Special Administrative Region has produced 19 annual environmental and sustainability reports in total. The Sustainability Report 2017, Sustainable Innovation, is our 14th annual sustainability report, which presents our initiatives and performance on economic, environmental and social aspects in 2016.

This report provides an opportunity not only to demonstrate our achievement last year, 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 2017 ("the Report") highlights ArchSD's key sustainability initiatives and achievement from 1 January 2016 to 31 December 2016. The Report covers the sustainability performance and initiatives of our six functional branches and two Central Management Divisions. Data in the Report are presented as absolute figures as of 31 December 2016 (unless otherwise stated) to the best of our knowledge. Financial data are reported for the financial year ended 31 March 2017. All monetary values are in Hong Kong Dollars.

Reporting Principles

The Report has been prepared in accordance with the Core option of the Sustainability Reporting Standards, published by the Global Reporting Initiative (GRI), as well as the Environmental Protection Department's A Guide to Environmental Reporting for Controlling Officers and the Director of Information Services' memo dated 20 October 2016 – "Guidelines on preparation of annual departmental reports". 102-46

The GRI Content Index correlates GRI disclosures with associated sections in the Report. An independent third-party assurance was conducted to verify the materiality, credibility and reliability of the Report and ensure its attainments to the Core option of GRI Sustainability Reporting Standards. We also went through the GRI "Materiality Disclosures Service" to ensure General Disclosures 102-40 to 102-49 were correctly located and can be easily found by readers.

Note to Reader

The Report is published online in web-based interactive html version and PDF version. The Report is available in 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. Key features of the Report are highlighted as follows:

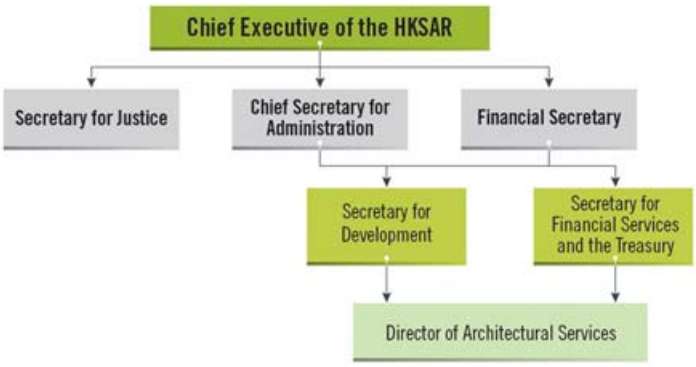
- On-screen font size setting provides more comfortable reading options for various users;
- Picture enlargement function presents larger and clear photo images, graphics and charts to readers;
- Search function facilitates readers to locate any specific interested sections or information efficiently;
- "My Report" function enables readers to temporarily store any selected section(s) for consolidation and printing;
- "Data Summary" section furnishes readers with a quick review of our performance on various key indicators; and
- "Glossary" section provides definitions of the technical terms using in or relevant to the Report.

Roles and Organisational Structure

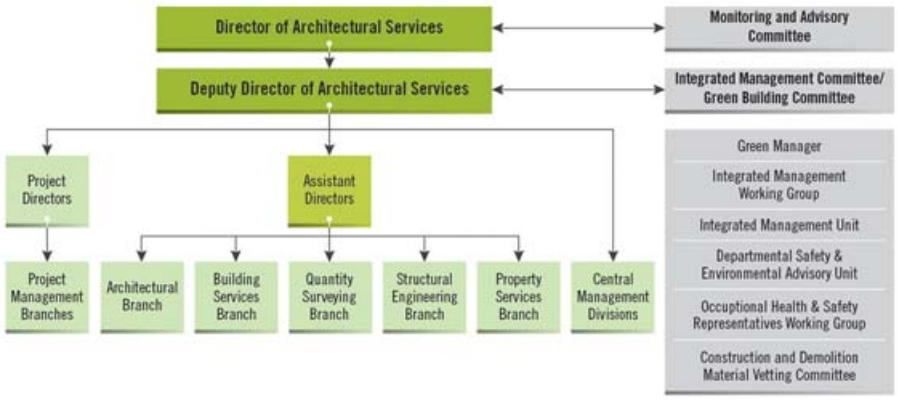
Architectural Services Department (ArchSD) performs three core functions in relation to Government-owned and Government-funded facilities in the following programme areas:

- **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.

ArchSD Role in the Government of HKSAR



Organisational Structure



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).

During 2016, we have created a total of 6,629 jobs by awarding works contracts and consultancies in relation to both new works contracts and minor works projects. We commenced 16 new works contracts and a substantial amount of minor works projects during the year.

Departmental Expenditure

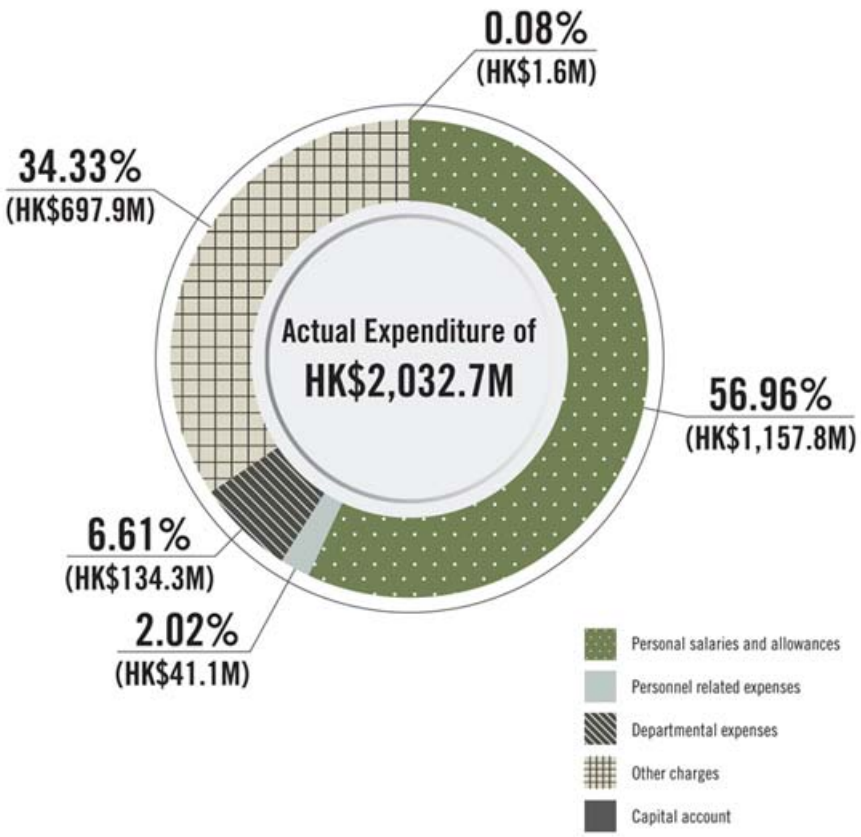
102-45

In the financial year 2016-17, we recorded an overall increase of around 4.4%[1] as comparing with the previous financial year in 2015-16. Expenditure breakdown of our department and by different programme areas[2] for the financial year 2016-17 are provided below. Details of our financial information and key performance of 2017-18 can be found in the ArchSD Controlling Officer's Report of the 2017-18 Estimates of the Government of the HKSAR, which is available online at www.budget.gov.hk.

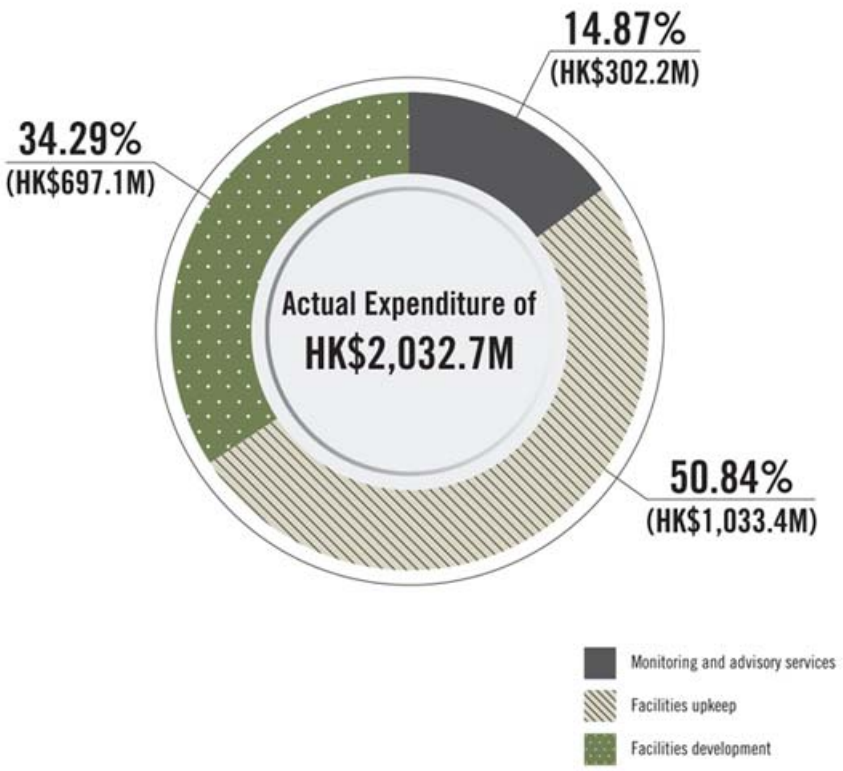
[1] The Departmental Expenditure 2016-17 was HK$2,032.7million, there was around 4.4% increase as comparing with the Departmental Expenditure 2015-16 of HK$1,947.8 million.

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

Departmental Expenditure Breakdown by Subhead



Departmental Expenditure Breakdown by Programmes



Key Facts

Founded on: 11 April 1986

Staff Establishment: 1,810

Headquarters: Queensway Government Offices, 66 Queensway, Hong Kong

Other Offices:

- APB Centre, Hunghom, Kowloon
- Murray Road Multi-Storey Carpark Building, 2 Murray Road, Central, Hong Kong

Total Office Area: 25,194.1 m^2
(The Murray Road Office was moved to Citiplaza early 2017)

Scale of Services (2016 Calendar Year):

- Number of Subvented / Entrusted Projects Reviewed: 743
- Number of Facilities Development Projects Completed: 31
- Building Floor Area of Properties Maintained: 31,585,100 m^2
- Government Spending on Building Projects: HK$ 9,284.5 million
- Value of New Works under Development: HK$ 152 billion

ArchSD strives for excellence in delivering our architectural services. We always encourage our staff to keep abreast of the latest requirements and trends related to the development and upkeep of buildings and facilities. We are glad that our efforts have been recognised by various professional bodies, institutions and award organisers during the year.

Hong Kong Institute of Architects (HKIA) Annual Awards

The HKIA Annual Awards recognise outstanding architectures designed by local architects. During the year, we are pleased to receive a number of honours from the Awards including:

- **"The Renovation Works of the Court of Final Appeal"**
  HKIA Medal of the Year of Hong Kong
  Special Architectural Award – Heritage and Adaptive Reuse
- **"Po Leung Kuk Stanley Ho Sau Nan Primary School"**
  HKIA Merit Award of Hong Kong – Community Building
- **"Hong Kong East Community Green Station"**
  President's Prize
  Special Architectural Award – Urban Design
- **"Green Site Office"**
  Finalist
- **"Kwun Tong Promenade (Stage 2)"**
  Finalist

Renovation Works of the Court of Final Appeal

Po Leung Kuk Stanley Ho Sau Nan Primary School

Hong Kong East Community Green Station

Structural Excellence Award

The Structural Excellence Award is organised by the Hong Kong Institution of Engineers (Joint Structural Division) to promote excellence in structural engineering demonstrated through the design and construction of buildings and structures. During the year, our projects received two recognition from the Award.

- **"Tiu Keng Leng Sports Centre, Tiu Keng Leng Public Library"**
  Commendation Merit Award
- **"Community Green Station at Shatin"**
  Commendation Merit Award

Community Green Station at Shatin

Green Building Award 2016

Jointly organised by the Hong Kong Green Building Council and the Professional Green Building Council, the Green Building Award 2016 aims to provide recognition for building-related projects with outstanding performance and contribution to sustainability and the built environment. Our achievements for this year were as follows.

New Buildings Category (Buildings under Construction)

- **"HK Children's Hospital"**
  Merit Award
- **"A 30-classroom Secondary School at Site 1A-2, Kai Tak"**
  Merit Award
- **"Redevelopment of Kwun Tong staff quarters at Tseung Kwan O Road"**
  Merit Award
- **"Green Site Office"**
  Finalist - Special Citation (in Eco-Service Infrastructure Network)

New Buildings Category (Completed Buildings)

- **"Ko Shan Theatre New Wing"**
  Grand Award
- **"Hong Kong East Community Green Station"**
  Merit Award - Special Citation (in Eco-Service Infrastructure Network)
- **"Kwun Tong Swimming Pool and Recreation Ground"**
  Finalist
- **"Kwun Tong Promenade"**
  Finalist

Ko Shan Theatre New Wing

Existing Buildings Category (Interiors)

- **"Renovation of APB Centre 1/F"**
  Grand Award
- **"Relocation of the Printing Workshop for Government Logistics Department"**
  Finalist

Renovation of APB Centre 1/F

The Hong Kong Institute of Landscape Architects (HKILA) Design Awards 2016

The awards are held bi-annually with an aim 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 2016, we were honoured to have **"Columbarium & Garden of Remembrance at Kiu Tau Road, Wo Hop Shek"** bestowed the *Silver Award* and **"Kwun Tong Promenade"** granted the *Merit Award*.

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

The International Architecture Awards

Organised by the Chicago Museum of Architecture and Design, the International Architecture Awards bring important commercial, corporate, institutional, and residential work to the attention of the global community. This year's awards honored built and unbuilt projects created in 2013-2017. We were honoured to receive the *International Architecture Awards* 2016 for the following projects:

- **"Columbarium & Garden of Remembrance at Kiu Tau Road, Wo Hop Shek"**
- **"Ko Shan Theatre New Wing"**

Urban Land Institute (ULI) Global Awards for Excellence 2016

ULI has launched the awards programme since 1979 with an objective of recognising not only excellence in a project's architecture and design, but also factors that go beyond good design, including leadership, contribution to the community, innovations, public/private partnership, environmental protection and enhancement etc. Our **"Hong Kong East Community Green Station"** was conferred the Global Award in 2016.

2016 Cityscape Awards for Emerging Markets

The Cityscape Awards for Emerging Markets aims to recognise excellent projects in real estate development and architecture. Our **"Tiu Keng Leng Sports Centre, Tiu Keng Leng Public Library"** was the "Winner" of *Sustainability Project Award* and "Highly Commended" for *Community, Culture & Tourism Project Award*.

Hong Kong BIM Awards 2016

Hong Kong BIM Awards 2016 recognises outstanding project teams that deployed Building Information Modelling (BIM) in building projects. We have won three awards for the use of BIM in our building projects.

- **"Eastern District Cultural Square"**
  Winner of Hong Kong BIM Awards 2016
- **"West Kowloon Government Offices"**
  Winner of Hong Kong BIM Awards 2016
- **"Fishermen Cultural Centre (Design Stage)"**
  Honorable Mention of Hong Kong BIM Awards 2016

Hong Kong Flower Show 2016

Organised by the Leisure and Cultural Services Department, the Hong Kong Flower Show 2016 was held in March at Victoria Park. This year the theme flower was "Antirrhinum majus" and the theme was "Blossoms in Vivid Art 2016". Our landscape design won the Gold Award for Design Excellence for its flower display.

ArchSD flower display in the Hong Kong Flower Show

MIPIM Asia Awards 2016

The MIPIM Asia Awards aim to recognise the property industry's best innovation and achievement. During the year, our **"Court of Final Appeal"** received the Gold award (Best Refurbished Building) and Special Jury Award.

Architizer A+ Awards

Organised by Architizer.com, the largest online community of architects, the Architizer A+Awards aim to nurture the appreciation of meaningful architecture in the world and champion its potential for a positive impact on everyday life. Our **"Wo Hop Shek Crematorium"** is voted as the *"Popular Choice Winner"* in the category *"Government & Municipal Buildings"*.

Wo Hop Shek Crematorium

The Royal Institution of Chartered Surveyors (RICS) Awards, Hong Kong 2016

The RICS Awards, Hong Kong is an annual award designed to recognise the highest levels of professionalism in the industry. It showcases outstanding achievements and development in Hong Kong's land, property and construction industries and across the built environment. We are honoured to be conferred the following awards:

- *Winner of Construction Project Team of the Year*
- *Winner of Refurbishment / Restoration Team of the Year*
- *Certificate of Excellence - Sustainability Achievement of the Year*

Hong Kong Institute of Urban Design (HKIUD) Urban Design Awards 2016

The HKIUD Urban Design Awards aim at recognising urban design related projects with outstanding performance and contribution to promoting excellence in Urban Design. This year, we were bestowed the following recognition:

- **"Tamar Development Project and the New Central Harbourfront"**
  Grand Award
- **"HKE Community Green Station"**
  Merit Award
- **Kai Tak Station Square**
  Merit Award

Quality Building Award (QBA) 2016

QBA is a biennial award jointly organised by nine local professional organisations in Hong Kong. It gives public recognition to buildings of outstanding quality that have demonstrated excellent teamwork. Its mission is to promote a collective commitment by the building industry to maintain the highest standards of professionalism and competiveness. We are honoured to receive a number of recognition for the following architectural projects:

- **"PMQ"**
  Quality Excellence Award and Grand Award Winner
- **"Court of Final Appeal"**
  Merit Winner
- **"Ko Shan Theatre New Wing"**
  Merit Award
- **"HK Velodrome"**
  Merit Award
- **"Trade and Industry Tower"**
  Certificate of Finalist
- **"Cruise Terminal Building"**
  Certificate of Finalist

PMQ

ARCASIA Awards for Architecture (AAA) 2016

AAA aims at acknowledging exemplary architectural work in Asia, which encourages the sustenance of the Asia spirit, the development and improvement of the Asian built environment and enhancement of the awareness of the role of architects in the socio-economic and cultural life of Asian countries. During the year, our **"Wo Hop Shek Crematorium"** was granted the *"Facebook My Top Favourite Project"* and **"PMQ"** was conferred *"Mentioned (Conservation Projects)"*.

Hong Kong Public Space Awards 2016

The biannual Hong Kong Public Space Awards aim to engage the general public in assessing the quality of public spaces. Outstanding public spaces are recognised through public nominations, public voting and professional evaluation. We are honoured to have our projects **"Conversion of the former royal HK yacht club premises to a community and public art centre (油街「實現」)"** recognised as *The Best Public Space – "1st"* and **"Kwun Tong Promenade"** granted *The Best Public Space – "2nd"*.

Kwun Tong Promenade

Hong Kong Green Awards (HKGA) 2016

HKGA was first formulated and staged by the Green Council in 2010 with its direct focus to seek out, identify and recognise selected participating companies that have pursued and achieved outstanding performance and result in the areas of green purchasing, green management and green governance. During the year, we are conferred the following awards:

- **"Design and Construction of New Territories West Regional Office and Water Resources Education Centre of Water Supplies Department"**
  Silver Award (Green Management Awards – Project Management - Large Corporation)
- **"Construction of Piling and Preparatory Works For the East Kowloon Cultural Centre"**
  Bronze Award (Green Management Awards - Project Management - Large Corporation)

Tung Wah Group of Hospitals (TWGHs) Corporate Partnership Recognition Ceremony 2016

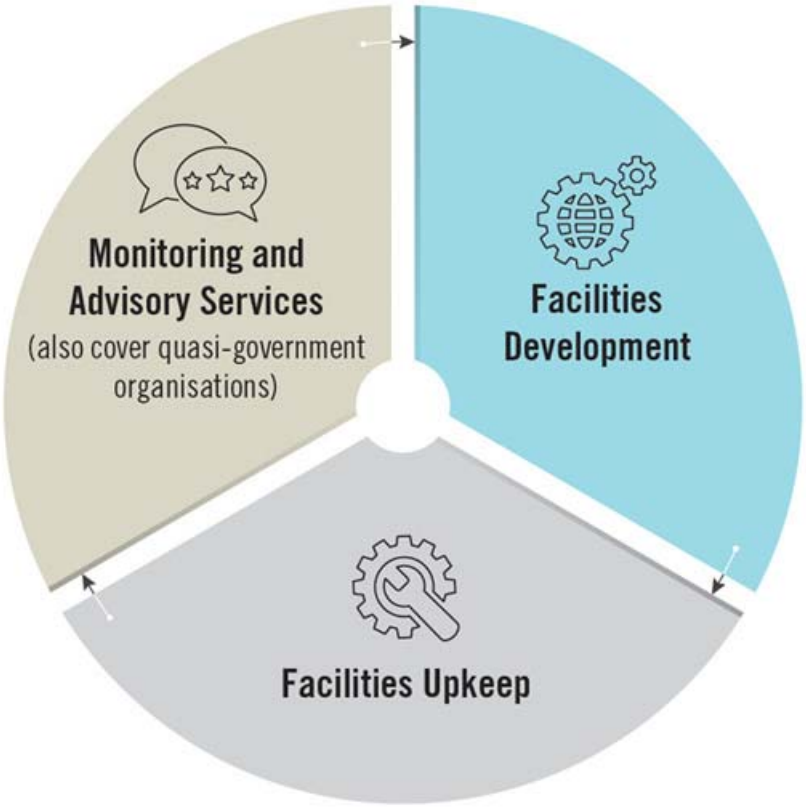
TWGHs has been working with business partners to promote a number of social services programmes since 2000 to enhance co-operation between the Government, businesses and community for providing more comprehensive and quality services for the disadvantaged community. We are honoured to be conferred the *"Outstanding Civil Service Volunteer Team" Award* during the year.

Civil Service Outstanding Service Award Scheme - Partnership Award

The Civil Service Bureau has been organising the Civil Service Outstanding Service Award Scheme on a biennial basis. The objectives of the Scheme are to recognise the efforts of departments and teams which provide excellent service, to promote a customer-focused culture in the civil service, and to inspire departments and teams for continuous improvement in the delivery of public services. During the year, the **"Fire and Ambulance Services Academy"** received the Silver Award.

Strategy and Management

ArchSD provides support to Government-owned and Government-funded facilities with core function in the following programme areas:



Our Vision, Mission and Values

Quality, Environmental, Health and Safety Policy

Our Quality, Environmental, Health and Safety Policy stipulates our commitment to driving the sustainable development of Hong Kong through our operations. In our comprehensive range of multi-disciplinary services for public buildings and facilities, we are committed to:

- Fulfil 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 to protect the environment;
- Manage our health and safety risks to ensure a safe and healthy environment for our staff, our contractors and other people who may be affected by our work;
- Fulfil all compliance obligations including applicable 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 management system to enhance performance and effectiveness; and
- Promote ArchSD's principles of quality, environmental sustainability, health and safety to our partners in work, the construction industry and the general public.

Governance

Being a government agency under the Hong Kong SAR Government, we strictly follow the highest practices and policies set out by the Civil Service Bureau to enforce our internal governance.

In the endeavour to achieve service excellence and continuous improvement in operational efficiency, we have incorporated international standards and industry best practices where applicable. Our Integrated Management System (IMS) is certified to ISO 9001 Quality Management System, ISO 14001 Environmental Management System and OHSAS 18001 Occupational Health and Safety Management System. Since 2014, our IMS at APB Centre is also certified to ISO 50001 Energy Management System. With our Vision, Mission and Core Values, and Quality, Environmental, Health and Safety Policy as the backbone, the IMS enables us to achieve operation and service excellence and continuous improvement.

We adhere to the safety-associated guidelines of the Development Bureau (DEVB) on top of our IMS to ensure that provisions such as site safety training, pay for safety, and safety model workers award scheme, are properly addressed in our works contracts. To protect the rights of employment and development, we fully comply with the Employment Ordinance, and offer our employees a range of benefits and training opportunities. Labour Relations Officers would be appointed for large-scale construction projects to help solve the disputes between contractors and workers in early stage.

Chaired by the Director, the Senior Staff Forum oversees the management of ArchSD. The Forum formulates departmental policies, strategies and goals as well as monitors and reviews the performance of our IMS at least once a year.

Members of the Senior Staff Forum:

1. Mr. K.K. LEUNG, Justice of the Peace, Director of Architectural Services
2. Mrs. Sylvia LAM, Justice of the Peace, Deputy Director of Architectural Services
3. Mr. Benny CHAN, Assistant Director (Architectural)
4. Mr. K.C. MAK, Justice of the Peace, Assistant Director (Building Services)
5. Mr. C.K. HUI, Assistant Director (Property Services)
6. Ms. Sheron LI, Justice of the Peace, Assistant Director (Quantity Surveying)
7. Mr. K.T. LEUNG, Justice of the Peace, Assistant Director (Structural Engineering)
8. Ms Winnie HO, Justice of the Peace, Project Director/1
9. Mr. David CHAK, Project Director/2
10. Mr. Edward TSE, Project Director/3
11. Ms. Doreen KWAN, Departmental Secretary

We have also established a number of steering committees to monitor different areas of operation of ArchSD.

Governance Structure

Risk Management

We identify and monitor the key risks associated with our operations through risk assessments and reporting at both the Departmental and project levels. Mitigation plans are formulated and implemented to control risks and minimise potential impacts as far as practicable.

At Departmental level, we identify and manage potential risks on quality, environment, health and safety in relation to our services and operations under our IMS.

In all our projects, we strictly follow the risk management guidelines of the DEVB, including Technical Circular (Works) No. 6/2005 on "Implementation of Systematic Risk Management in Public Works Projects". We take a lifecycle approach in managing potential risks in projects, from the project inception to the completion of construction. In addition, during the course of project delivery, project teams would conduct integrated management workshops with project stakeholders to assess risks and formulating effective controls well in advance.

To ensure workplace integrity, all staff are required to uphold high level of ethical standards and professional integrity. They are obliged to follow the principles stated in the Prevention of Bribery Ordinance. Potential or suspected bribery or corruption cases shall be reported to the Senior Staff Forum and the Independent Commission Against Corruption for further investigation. During the reporting period, there was no such case reported.

Involvement in External Associations and Committees

Apart from their official duties, our senior staff members actively participated in a variety of professional bodies and external committees. They offer statutory, professional and technical advice to support local initiatives in relation to developing and executing public policies on building design and architectural issues. For instance, our senior staff members are involved in various committees related to sustainability and these include:

- 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;
- Accommodation Strategy Group to examine and approve minor building works applications;
- 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; and
- Green Labelling Committee, the Industry Standards Committee and the Policy and Research Committee under the Hong Kong Green Building Council Limited to drive green building development.
- Advisory Committee on Built Heritage Conservation to advise on matters related to built heritage conservation;
- Steering Committee on the Promotion of Green Building to formulate strategies to further promote green buildings and make recommendations on relevant measures;
- Public Fill Committee to formulate and implement strategies for the management of public fill and recycled materials;
- Steering Committee on Restored Landfill Revitalization Funding Scheme to advise on the operational arrangements and other related matters of the Scheme.

Departmental Annual Plan (DAP)

With a view to keep track of the departmental advancement, we prepared an Annual Plan to establish objectives and targets annually. Progress meetings would be conducted regularly to communicate the objectives and achievements among different functional units.

Our DAP in 2016/17 was established to focus on building cost control and enhancing knowledge management. These focus areas together with the major achievements during the reporting year are listed as follows.

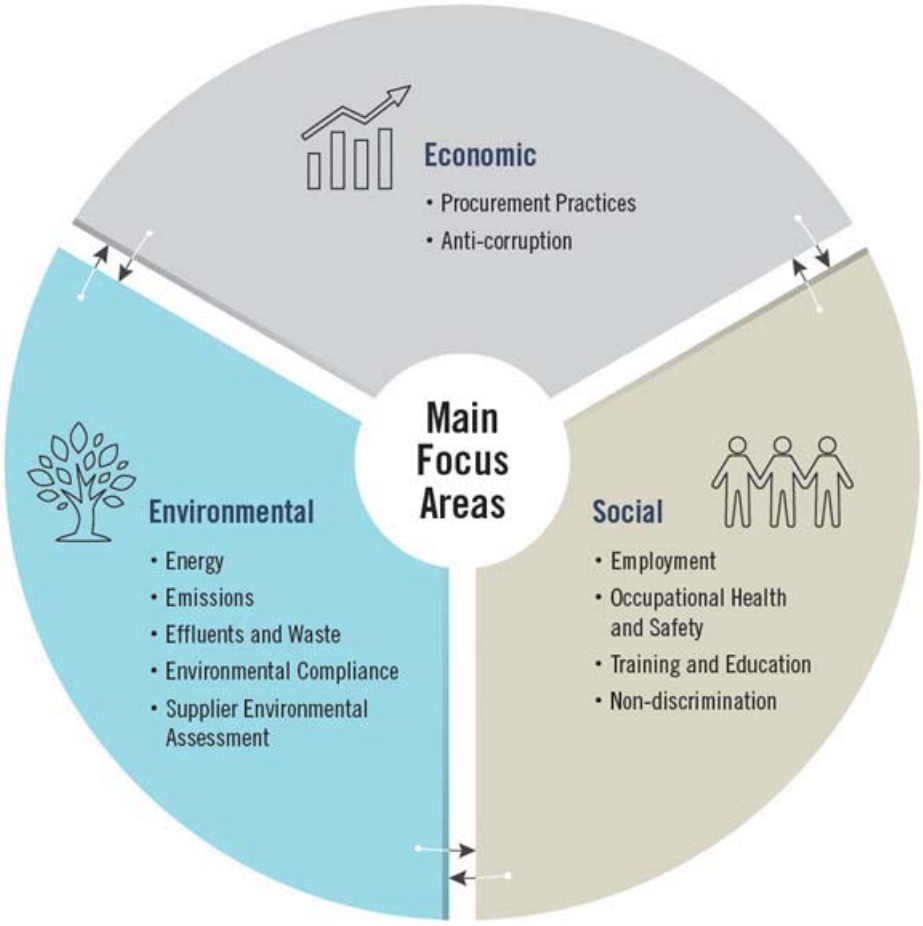
Focus Area in Annual Plan 2016/17	Achievement Highlights
1. Enhancing buildability and strengthen cost control	■ Adopted "No Frills" principle and "3S" (Standardisation, Simplification and Single Integrated Element) in design and contractual requirements to optimise building design and reduce building costs
2. Enhancing knowledge management (KM) development	■ Conducted a survey on KM development for staff and implemented several follow up actions such as layout revamp and search engine enhancement ■ Implemented "A Month A Jam" interactive platform to proactively harvest knowledge in a wider spectrum ■ Launched the Project Record Keeping System to share the information of completed projects to all professionals and relevant staffs for reference ■ Promoted the wider use and sharing of the simplified "Lessons Learnt" pro forma ■ Conducted 72 training sessions for ArchSD Academy with about 4,100 participants, in which 34 training sessions involved external stakeholders as speakers or audience

Main Focus Areas

We are proud to have our stakeholders in different sectors joining us in our journey towards sustainability. We have identified key stakeholder groups that would have direct and/or indirect repercussions on ArchSD's operation and sustainable development. 102-42

On top of our daily engagement channels for our stakeholders, such as Client Satisfaction Survey, we have an independent engagement exercise for our annual sustainability reporting process. It is specifically designed to understand our key stakeholders' views and concerns. We have interviewed representatives from professional and technical staff, contractor, client, facility user and allied professional body. By listening to their particular interests and concerns about our sustainability initiatives and performance, the exercise helps us define the content and shape the boundaries of this Report. 102-46 102-40

With due consideration of stakeholders' views, and ArchSD's major activities and impacts, the following areas were identified as the Material Topics, forming the main focus of the Report. 102-47


Economic
• Procurement Practices
• Anti-corruption
Main Focus Areas
Environmental
• Energy
• Emissions
• Effluents and Waste
• Environmental Compliance
• Supplier Environmental Assessment
Social
• Employment
• Occupational Health and Safety
• Training and Education
• Non-discrimination

Engagement Approach

We value every opportunity in listening to our stakeholders. Their feedback is essential to the continuous improvement in our operational approaches and achievement of sustainability. We sought their ideas, views and comments through various channels. Some examples include questionnaire surveys, face-to-face meetings, public events, electronic platforms, etc. Our key stakeholder groups and our corresponding engagement approaches are summarised below. 102-40 102-43

Stakeholder Interview

We conducted five independent interviews with representatives of our key stakeholder groups – staff, contractor, client/ user and professional body – to better understand their concerns and obtain feedback for the continuous improvement of the department's sustainability initiatives and performance. 102-44

Comment from Staff

Mr. AU Kwok Chiu
Chief Technical Officer

As a department responsible for the development and upkeep of government buildings and facilities, ArchSD has observed and followed most current building industry trends and standards whenever applicable. In pursuit of service excellence, it is important to enhance staff competence in relevant aspects. ArchSD has arranged different in-house training courses to raise staff's general awareness and technical knowhow including fire safety, Building Information Modelling (BIM) and so on. The department also encourages knowledge sharing by establishing the Knowledge Management (KM) Portal to centralise all useful information, which enables staff to make reference to relevant materials and learn from previous projects.

ArchSD has spared no effort to enhance our sustainability performance in particular reducing carbon footprint. Internally, we have adopted various energy saving measures in our offices, such as using motion sensors in lighting systems and escalators. We also installed solar photovoltaic systems to harness natural energy and reduce electricity demand. Externally, we have implemented suitable and cost-effective sustainability initiatives in new capital and minor works projects. We also set up electricity and water meters to keep track of resource consumption in government buildings so as to identify opportunities for cutting down the carbon footprint.

With more than 1,800 staff spread over 6 branches, ArchSD should continue to maintain closer communication between different branches to foster more cross-branch collaboration and enable individual staff to develop diversified skill sets. It will also be beneficial to further enhance the organisation and control of existing and newly added information in the KM Portal to facilitate users in data retrieval and picking out useful information.

Our Response

We put high priority in continuous staff development and knowledge sharing within the department to nurture a sustainable and professional work force. We will continue to strengthen cross-branch communication at all levels and enhance the functionality of the KM Portal for the sake of our staff.

Comment from Staff

Mr. LAM Kwok Kit
Chief Clerk of Works

As the Chief Clerk of Works, my major duties are to supervise, arrange and manage site staff as well as oversee staff training and recruitment issues. ArchSD is dedicated to supporting staff development through provision of a wide range of in-house training covering soft skills like safety, environmental management and occupational safety and health, and technical knowhow. This can assure our staff to fully comply with new industry standards and to be thoroughly aware of the latest regulations and specifications such as new testing methods criteria as set in the Construction Standard (CS2). Staff are also able to gain hands-on experience through working under supervision on various site projects. Such arrangement is crucial to uphold their relevant knowledge and quality of work.

To achieve better sustainability, ArchSD should continue to focus on standardising and simplifying site practices and building designs wherever applicable to facilitate better deployment of skilled labour and resources as well as increase maintainability of buildings. In addition, to address the upcoming high staff turnover due to retirement, ArchSD should create more platforms to facilitate knowledge management and to enable transfer of knowledge and experience from senior professionals to junior executives.

Our Response

Staff is one of our key stakeholders. We value their comments and opinion to enhance our sustainability performance. We will continue to improve our site practices and designs of our new development to optimise resources deployment and enhance work efficiency. As part of our knowledge management initiatives, we have set up channels such as mentoring programme, codification interview, community of practices and ArchSD Academy to enable young officers to acquire necessary skill and knowledge from experienced colleagues. We will continue to make use of different platforms to facilitate successive knowledge transfer through generations of staff to the new hires to ensure our business sustainability.

Comment from Contractor

Mr. YU Cheuk Hang
Site Agent of Able Engineering Company Limited

We have worked for ArchSD on the design and construction of the Redevelopment of Tai Lam Centre for Women. ArchSD has treated us as a working partner and provided us with professional guidance throughout the project. Prior to project commencement, ArchSD invited us to attend an integrated workshop together with other project stakeholders to encourage and foster communication between different parties. Regular meetings have also been conducted to reinforce and ensure our understanding of all project-related environmental and safety requirements. ArchSD has also taken the lead to introduce a number of environmental and energy efficient features in this redevelopment project to maximise resources utilisation.

Apart from making sure our compliance, ArchSD has put great efforts to encourage contractors to improve their site performance. These include various incentive schemes, such as "Pay for Safety and Environment Scheme" and "Green Contractor Award" to motivate contractors to adopt different environmental measures. These award schemes not only induce us to apply more green measures on site, but also provide a platform to facilitate information exchange and share best environmental practices among the construction industry. Inspired by ArchSD, we have also put into practice a lot of suitable environmental initiatives to mitigate air and noise pollution, manage waste issues and conserve energy in our construction site. We are honor to receive the Bronze Award in the "Green Contractor Award" this year.

ArchSD has long been playing a key role in promoting the adoption of sustainable building designs and green features in Hong Kong. We would like to see their continuous effort to share the latest and innovative technologies with the industry in the future.

Our Response

We treasure the working relationship with our contractors as our new development and maintenance works highly dependent on them. They are one of our important business partners to help us achieve sustainability along our supply chain. We will continue to join hands with them to pursue environmental excellence and attain higher safety standards during construction of our projects. We will render our full support and introduce innovative yet practical measures to improve site sustainability.

Comment from Professional Institution

Mr. Stanley Chow
Chair of The Chartered Institution of Building Services Engineers - Hong Kong Branch

The Chartered Institution of Building Services Engineers - Hong Kong Branch (CIBSE-HKB) is committed to promoting good industry practices in building services engineering in Hong Kong with the aim of promoting sustainability in built environment as well as improving building performance. In recent years, we actively promote the use of Building Information Modelling (BIM) technology which is an innovative process of generating digital visual representation of building services engineering data, including system design, installation, operation and maintenance aspects, to enhance communication between different parties involved in various stages of a building lifecycle. The application of BIM technology and its data packed models can enable building services engineers to make more informed decisions to carry out innovative and sustainable designs as well as quality operation and maintenance services to building services engineering facilities.

It is commended that ArchSD has put great effort to promote sustainability in built environment, wider use of BIM technology and support the exchange of relevant knowledge in the construction industry. Over the past few years, both CIBSE-HKB and ArchSD have worked hard to raise awareness and train up competent BIM personnel in the industry. We look forward to future collaboration with ArchSD on promoting the adoption of the BIM technology to the industry at large.

Our Response

We are pleased to know that our efforts to promote the use of BIM technology for building services engineering is appreciated by CIBSE-HKB. We will continue to support a wider adoption of the BIM technology in different projects with our accumulated BIM-related technical knowledge. We will also explore opportunities to work closely with other professional associations such as CIBSE-HKB to promote the effective use of BIM technology in the industry.

Comment from Client and User

Waste Management Policy Division,
Environmental Protection Department
(EPD)

We have been working closely with ArchSD since August 2012 in taking forward the Community Green Station (CGS) project. It is a pioneer project announced in the 2014 Policy Address through which EPD aims to promote a green culture of “Use Less, Waste Less” with continued environmental education on waste reduction and recycling and enhanced logistics service for recyclable collection at the community level. With the dedicated support and commitment of ArchSD, we are going to develop a CGS in each district progressively and since May 2015. So far, four CGSs have been up and running in Sha Tin, Eastern, Kwun Tong and Yuen Long districts. The fifth one in Sham Shui Po is expected to be launched in the last quarter of 2017. Since its inception, the CGSs have been well received by the public and contributing to a marked increase in recyclables collected in the districts served by the CGSs.

Throughout the design and construction process, we witnessed ArchSD making careful planning and professional decision in adopting sustainability concepts in the design and construction of the CGS. For example, the project has reused modular containers as the basis of the buildings while modified them to suit the need of different functions of the CGS in a cost-effective manner. Through the use of green wall, bamboo trellis and courtyard garden, ArchSD seeks to embody a sense of community and a touch of oasis within the city for the CGSs. The design also surprises many people who used to have the impression that a recycling operation must be dirty and messy. The CGSs have become green landmarks of the respective districts, visited by more than 320,000 people so far drawing attention of people from across Hong Kong and even places outside Hong Kong. Indeed, the architectural design of the CGSs has been highly acclaimed, with individual projects winning local and international architectural and green building awards.

We have no doubt that the CGSs have become good model and example for other recycling and green facilities to follow and this could not have been achieved without the exemplary contribution and dedication of ArchSD's team. We look forward to the continued collaboration with ArchSD to instill more sustainable elements into the existing and future CGSs projects. We also look upon ArchSD to come up with more and more pristine, sustainable and yet innovative designs that are long-lasting and benefit our future generations.

Our Response

We are delighted to learn that our efforts are commended by the Environmental Protection Department. We always put strong emphasis on the needs of our clients and users. We will continue to communicate with stakeholders in all new development and facilities upkeep projects throughout the project life cycle to best suit their needs and promote sustainable built environment in Hong Kong.

Sustainable Building Design

Buildings in Hong Kong account for a large proportion of total electricity consumption and total carbon emissions of the city. Over the years, we are committed to promoting sustainable building design and introducing smart features in our development projects to enhance energy efficiency and conserve resources.

In 2014, we published The Sustainable Building Design Considerations Guidelines to provide a comprehensive guide for our designers to practise green and sustainable building design to improve our built environment. The Guidelines outline most of the important design considerations of passive design in architecture and active design.It provides useful references on sustainable construction materials and methods. A standard Particular Specification (PS) has also been developed for the design of our temporary site office to further promote the use of green materials.

Features of Sustainable Building Design

Passive Design in Architecture

Passive design in architecture is an approach to building design that uses the building architecture to minimise energy consumption and improve thermal comfort. At the early stages of the development projects, we consider and adopt suitable measures in planning, disposition, orientation, building form and material selection to optimise interaction with the local microclimate. Our passive design in architecture strategies include:

- Mitigating heat island effect or elevated temperature
- Air ventilation around buildings
- Daylighting
- Natural ventilation
- Passive cooling
- Reducing heat gain through building envelope

Active Design

Active design is an approach using the electrical and mechanical systems, such as heating, ventilation and air conditioning (HVAC) systems and lighting systems, to create and maintain comfortable conditions. These installations will influence the energy use, greenhouse gases emissions, water use, thermal comfort and other sustainability outcomes of buildings. Active design is adopted to improve the following aspects in buildings:

- Energy efficiency
- Energy conservation
- Water conservation
- Indoor environmental quality

Construction and Materials

Apart from passive and active design, the use of sustainable construction methods and materials also plays an important role in sustainable buildings. Common sustainable construction methods include prefabrication, pollution control during construction and adoption of 3R principles (i.e. Reduce, Reuse and Recycle). In addition, we use sustainable materials such as recycled materials and timber from well-managed sources.

Social Considerations

In recent year, public expectation puts more emphasis on the quality of public spaces. As such, many of our buildings have incorporated social considerations to enable group activities and communication of community members to foster a harmonious atmosphere. Here is a short video illustrating our aspiration in action:

Read a text transcript of this video

Case Study

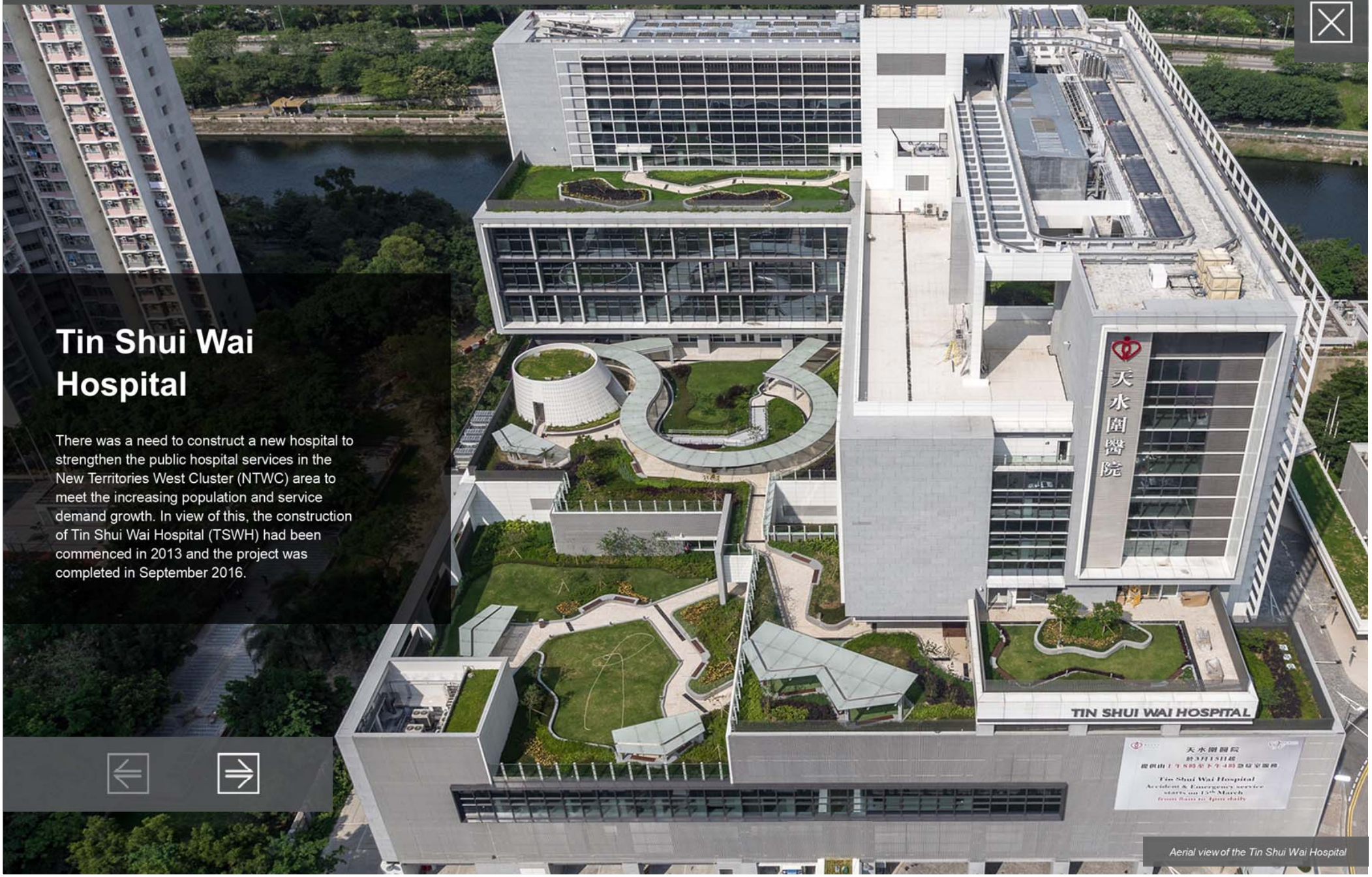
Tin Shui Wai Hospital

- low window to wall ratio for air conditioned areas;
- high efficiency air-cooled chillers with variable speed drive;
- heat pump, air cooled heat recovery and air cooled reversed cycle heat pump chiller to supply hot water for space heating and pre-heat for hot water supply;
- adoption of photo sensor and motion sensor for lighting control service-on-demand control for escalator;
- use of renewable energy by adopting solar hot water system and light pipes;
- rainwater harvesting for landscape irrigation;
- food waste decomposing system; and
- electric charging facilities for car parking spaces at basement

More Details

Tin Shui Wai Hospital

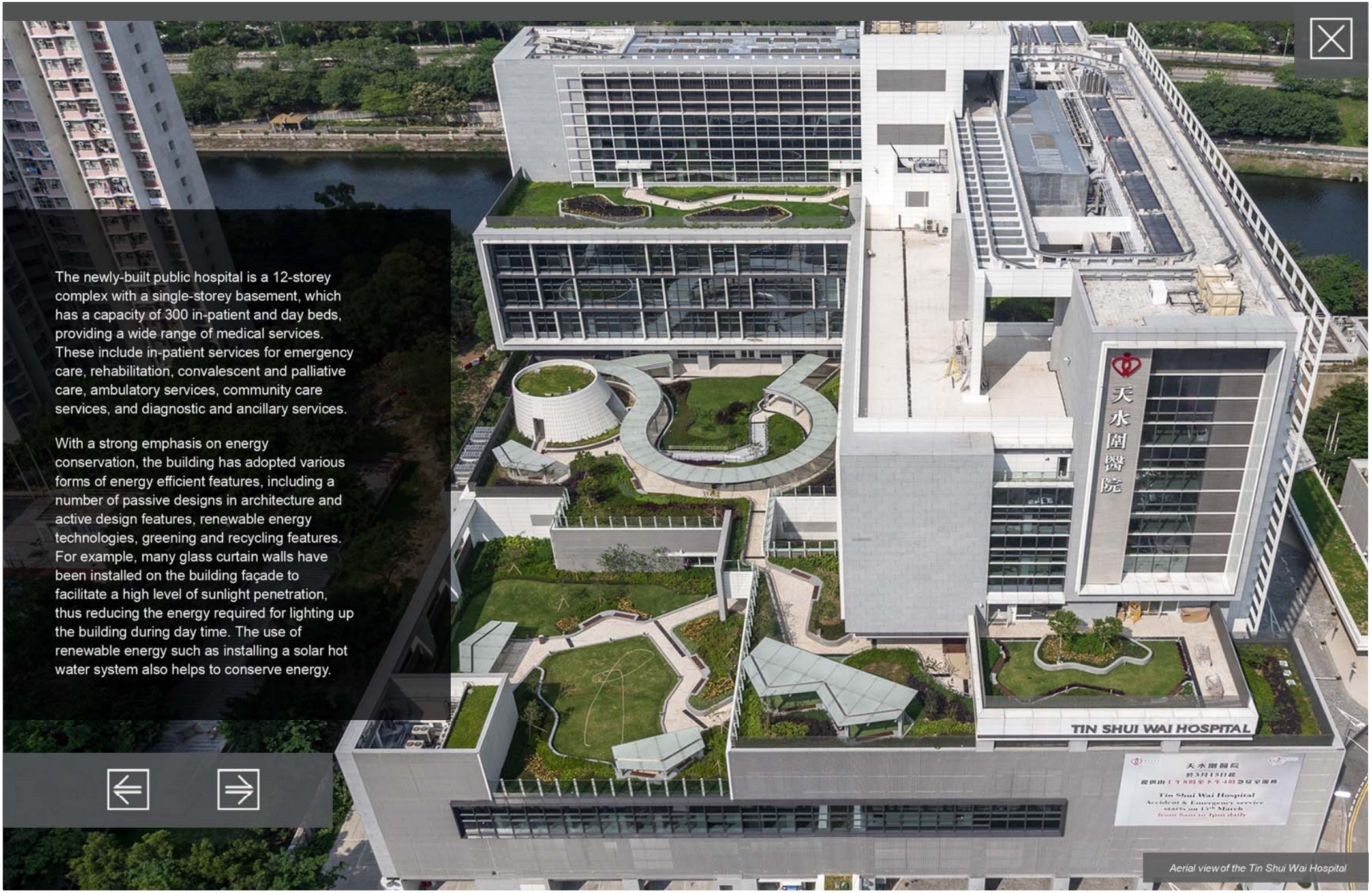
There was a need to construct a new hospital to strengthen the public hospital services in the New Territories West Cluster (NTWC) area to meet the increasing population and service demand growth. In view of this, the construction of Tin Shui Wai Hospital (TSWH) had been commenced in 2013 and the project was completed in September 2016.



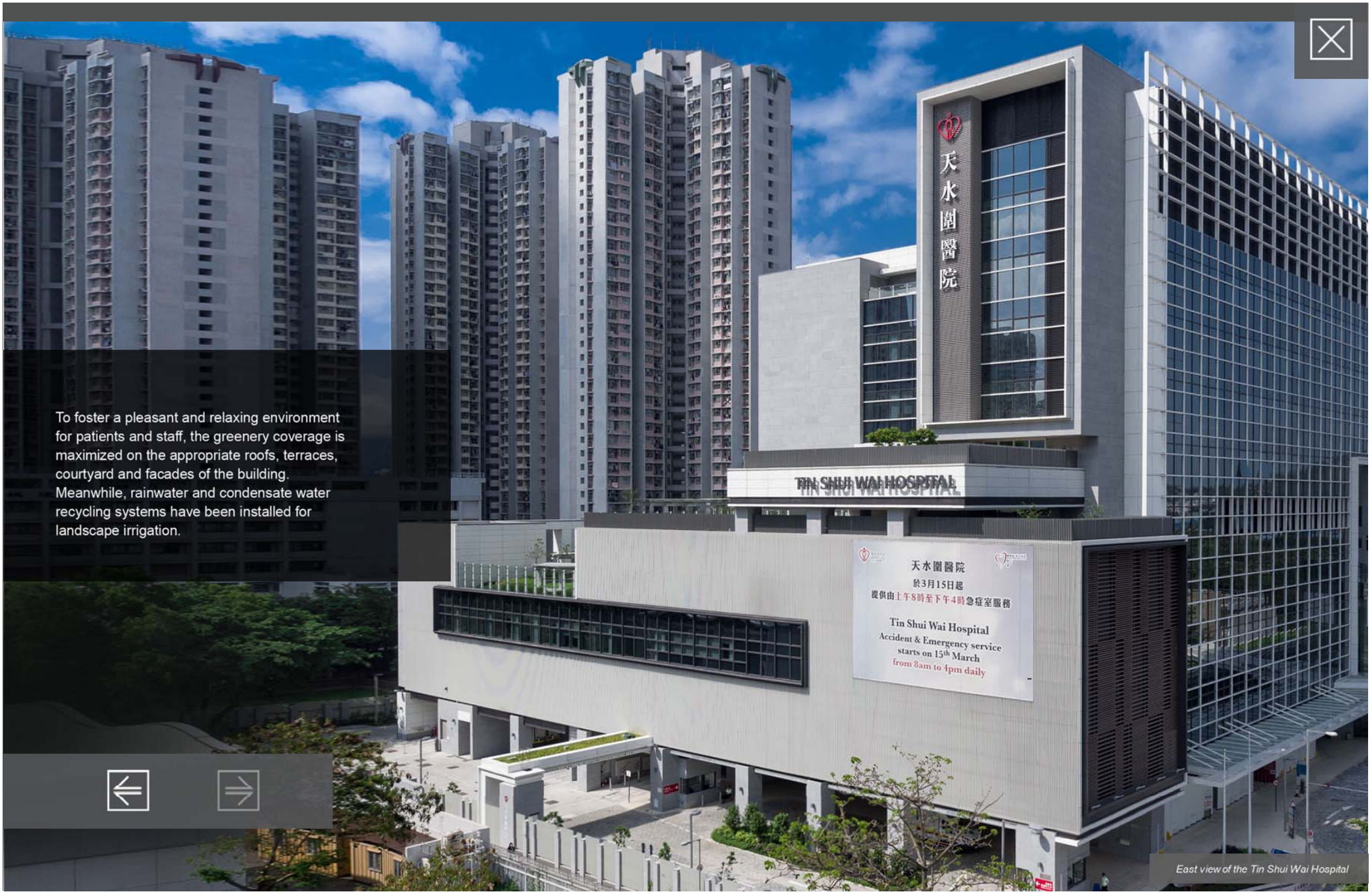
Aerial view of the Tin Shui Wai Hospital

The newly-built public hospital is a 12-storey complex with a single-storey basement, which has a capacity of 300 in-patient and day beds, providing a wide range of medical services. These include in-patient services for emergency care, rehabilitation, convalescent and palliative care, ambulatory services, community care services, and diagnostic and ancillary services.

With a strong emphasis on energy conservation, the building has adopted various forms of energy efficient features, including a number of passive designs in architecture and active design features, renewable energy technologies, greening and recycling features. For example, many glass curtain walls have been installed on the building façade to facilitate a high level of sunlight penetration, thus reducing the energy required for lighting up the building during day time. The use of renewable energy such as installing a solar hot water system also helps to conserve energy.



Aerial view of the Tin Shui Wai Hospital

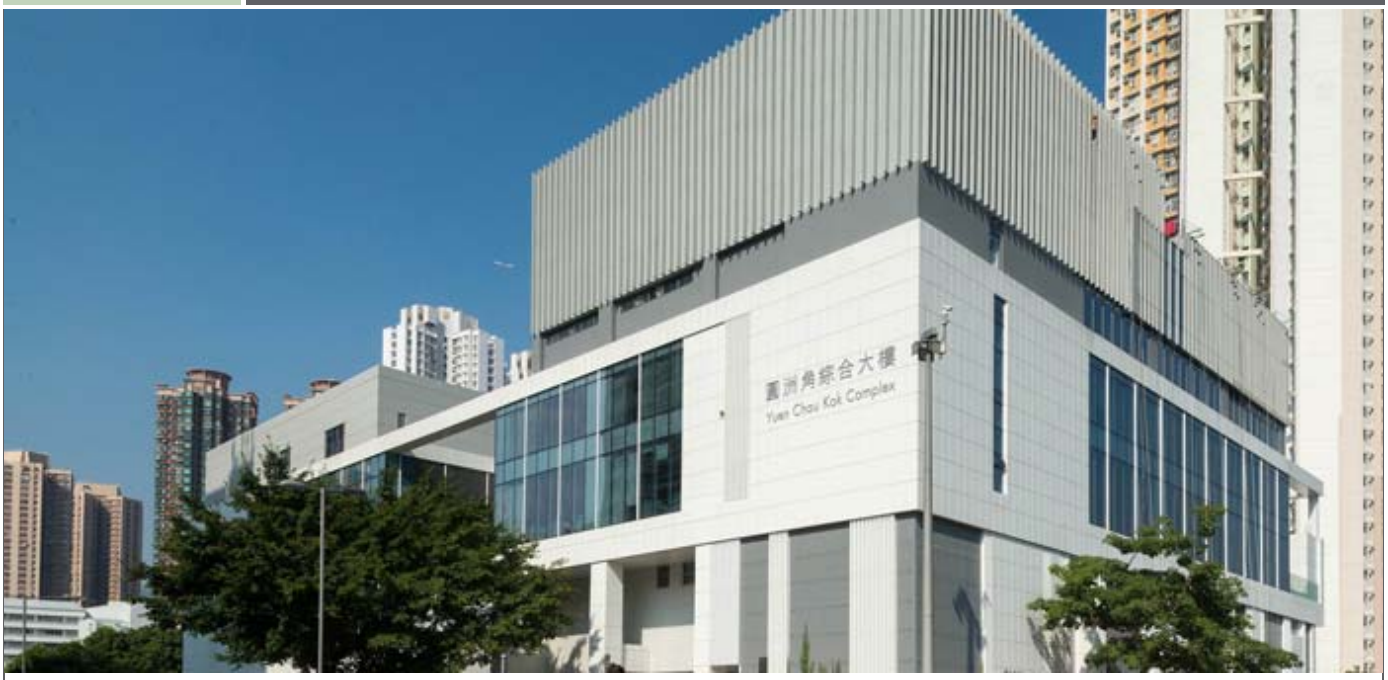


To foster a pleasant and relaxing environment for patients and staff, the greenery coverage is maximized on the appropriate roofs, terraces, courtyard and facades of the building. Meanwhile, rainwater and condensate water recycling systems have been installed for landscape irrigation.

East view of the Tin Shui Wai Hospital

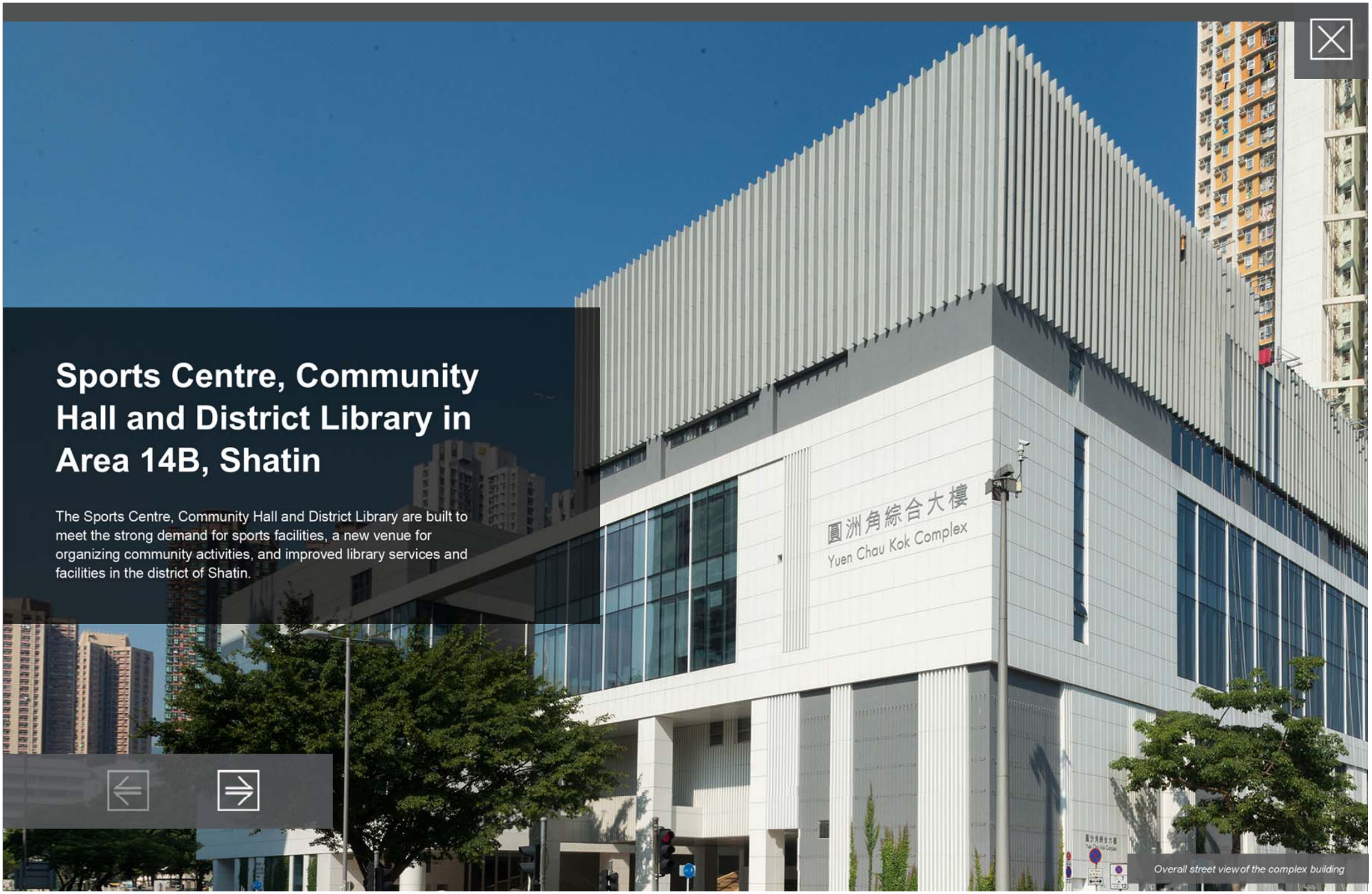
Case Study

Sports Centre, Community Hall and District Library in Area 14B, Shatin



- water-cooled chillers (evaporative cooling tower using fresh water);
- automatic demand control of chilled water circulation system;
- automatic demand control of supply air;
- heat wheels for heat energy reclaim of exhaust air;
- T5 energy efficient fluorescent tubes with electronic ballast and lighting control by daylight sensors;
- automatic condenser tube cleaning equipment;
- demand control of fresh air supply with carbon dioxide sensors;
- light-emitting diode (LED) type exit signs;
- heat pump for domestic hot water; and
- automatic on/off switching of lighting and ventilation fan inside the lifts

More Details



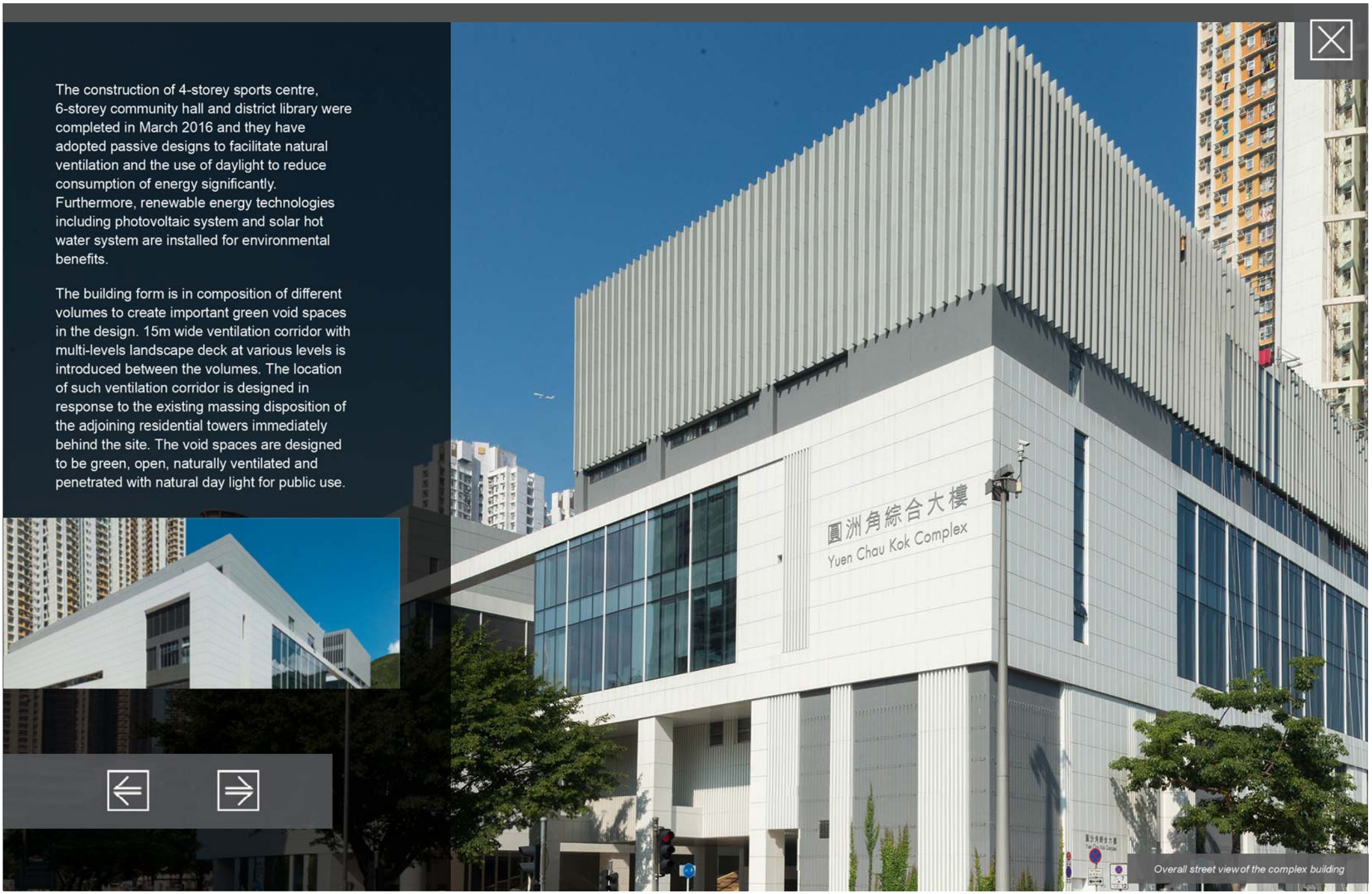
Sports Centre, Community Hall and District Library in Area 14B, Shatin

The Sports Centre, Community Hall and District Library are built to meet the strong demand for sports facilities, a new venue for organizing community activities, and improved library services and facilities in the district of Shatin.

Overall street view of the complex building

The construction of 4-storey sports centre, 6-storey community hall and district library were completed in March 2016 and they have adopted passive designs to facilitate natural ventilation and the use of daylight to reduce consumption of energy significantly. Furthermore, renewable energy technologies including photovoltaic system and solar hot water system are installed for environmental benefits.

The building form is in composition of different volumes to create important green void spaces in the design. 15m wide ventilation corridor with multi-levels landscape deck at various levels is introduced between the volumes. The location of such ventilation corridor is designed in response to the existing massing disposition of the adjoining residential towers immediately behind the site. The void spaces are designed to be green, open, naturally ventilated and penetrated with natural day light for public use.



Overall street view of the complex building

To provide a comfortable and enjoyable environment for the residents, the building complex integrates greening features on appropriate rooftops and facades, including a climber system for creating an attractive micro-garden on facades. A rainwater recycling system is also installed for irrigating the large coverage of green area.

Greening of terrace on rooftop

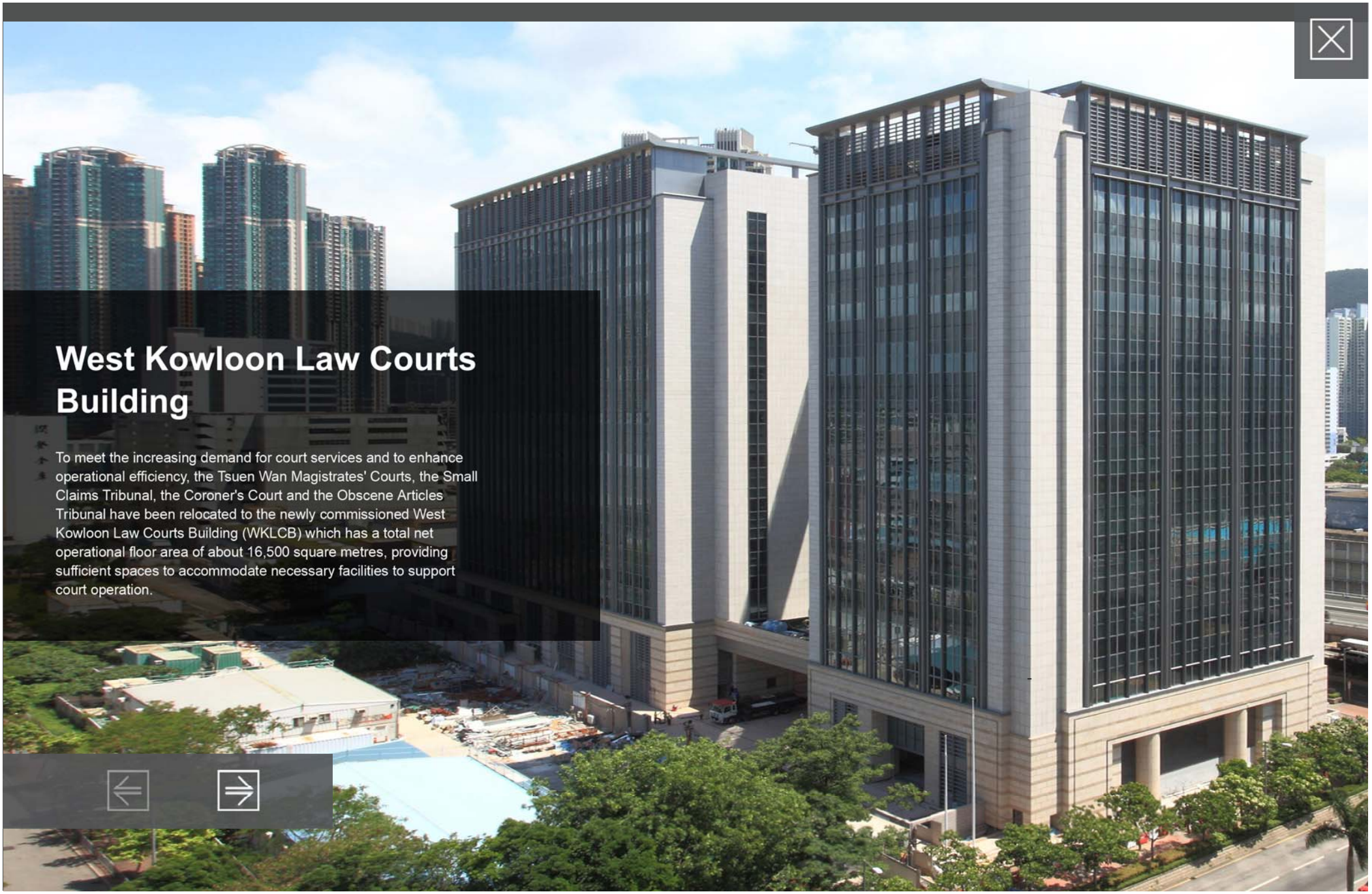
Aerial view of the complex building

Case Study

West Kowloon Law Courts Building

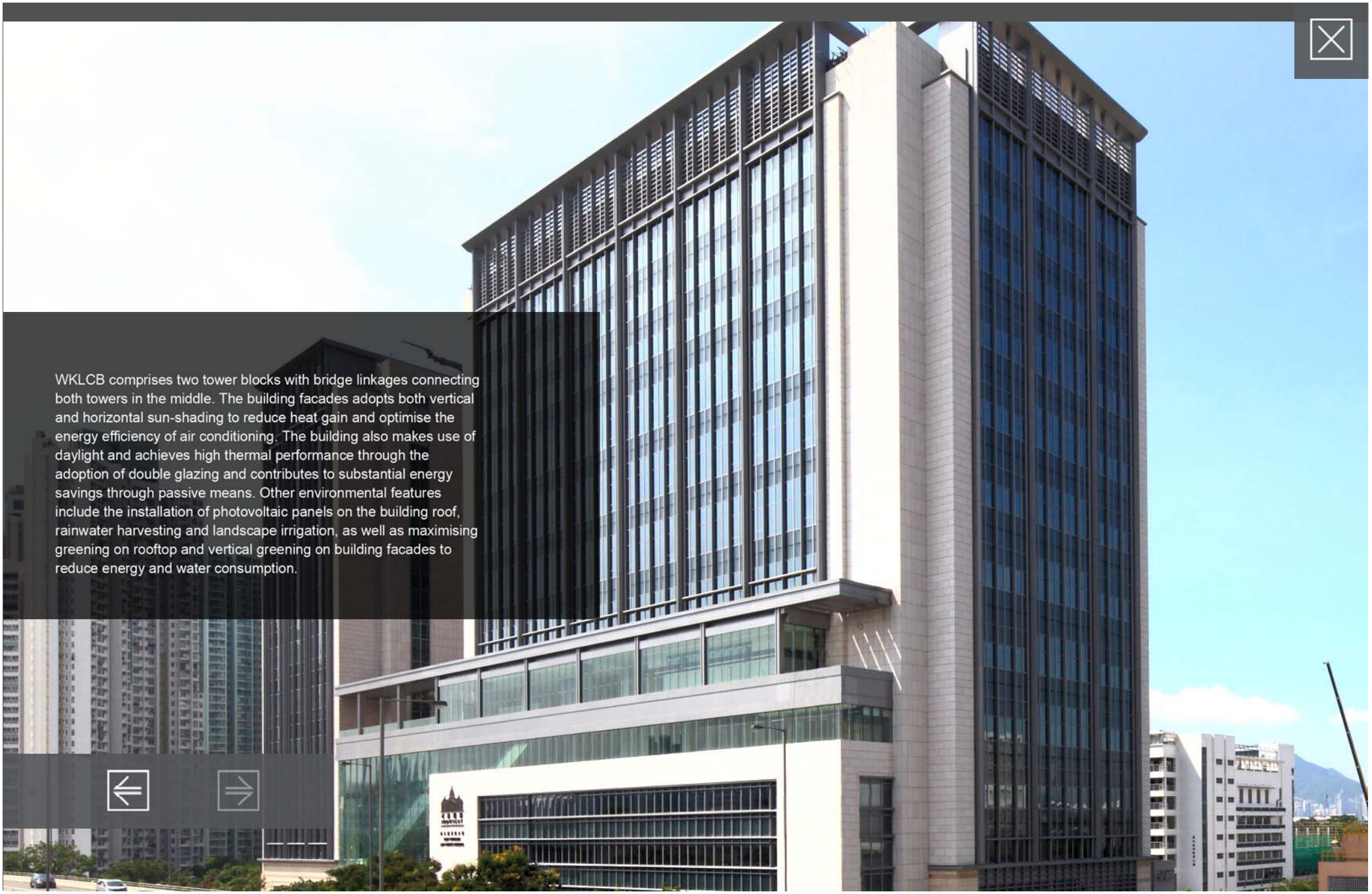
- high efficiency water-cooled chillers with variable speed drive;
- heat pump for space heating;
- automatic demand control of supply air;
- service-on-demand control for escalators;
- LED down light and spot light;
- automatic on/off switching of lighting and ventilation fan inside the lifts;
- computerised lighting control system with occupancy sensors and daylight sensors;
- rainwater harvesting for landscape irrigation;
- use of renewable energy by adopting photovoltaic system; and;
- building energy management system

More Details



West Kowloon Law Courts Building

To meet the increasing demand for court services and to enhance operational efficiency, the Tsuen Wan Magistrates' Courts, the Small Claims Tribunal, the Coroner's Court and the Obscene Articles Tribunal have been relocated to the newly commissioned West Kowloon Law Courts Building (WKLCB) which has a total net operational floor area of about 16,500 square metres, providing sufficient spaces to accommodate necessary facilities to support court operation.



WKLCB comprises two tower blocks with bridge linkages connecting both towers in the middle. The building facades adopts both vertical and horizontal sun-shading to reduce heat gain and optimise the energy efficiency of air conditioning. The building also makes use of daylight and achieves high thermal performance through the adoption of double glazing and contributes to substantial energy savings through passive means. Other environmental features include the installation of photovoltaic panels on the building roof, rainwater harvesting and landscape irrigation, as well as maximising greening on rooftop and vertical greening on building facades to reduce energy and water consumption.

Greening and Landscaping

Over the years, ArchSD has continued to enhance the greenery coverage in the our building projects and introduced more landscape elements to government buildings and facilities. To an extent we also provide similar guidelines and advices to quasi-government organisations on subvented projects. We explore and identify suitable locations to adopt roof greening and vertical greening, wherever practicable, so as to enhance the surrounding environment to provide a pleasant scenic view.

In 2016, we completed a number of projects with landscape elements for different government bureaux/departments and related organisations, including Fire Services Department, Hong Kong Police Force and Leisure and Cultural Services Department, etc. These include:

- 9 projects with green roofs on new buildings;
- 4 projects with retrofitted green roofs on existing buildings;
- 8 projects with vertical greening on new buildings;
- 6 project with retrofitted vertical greening on existing building.

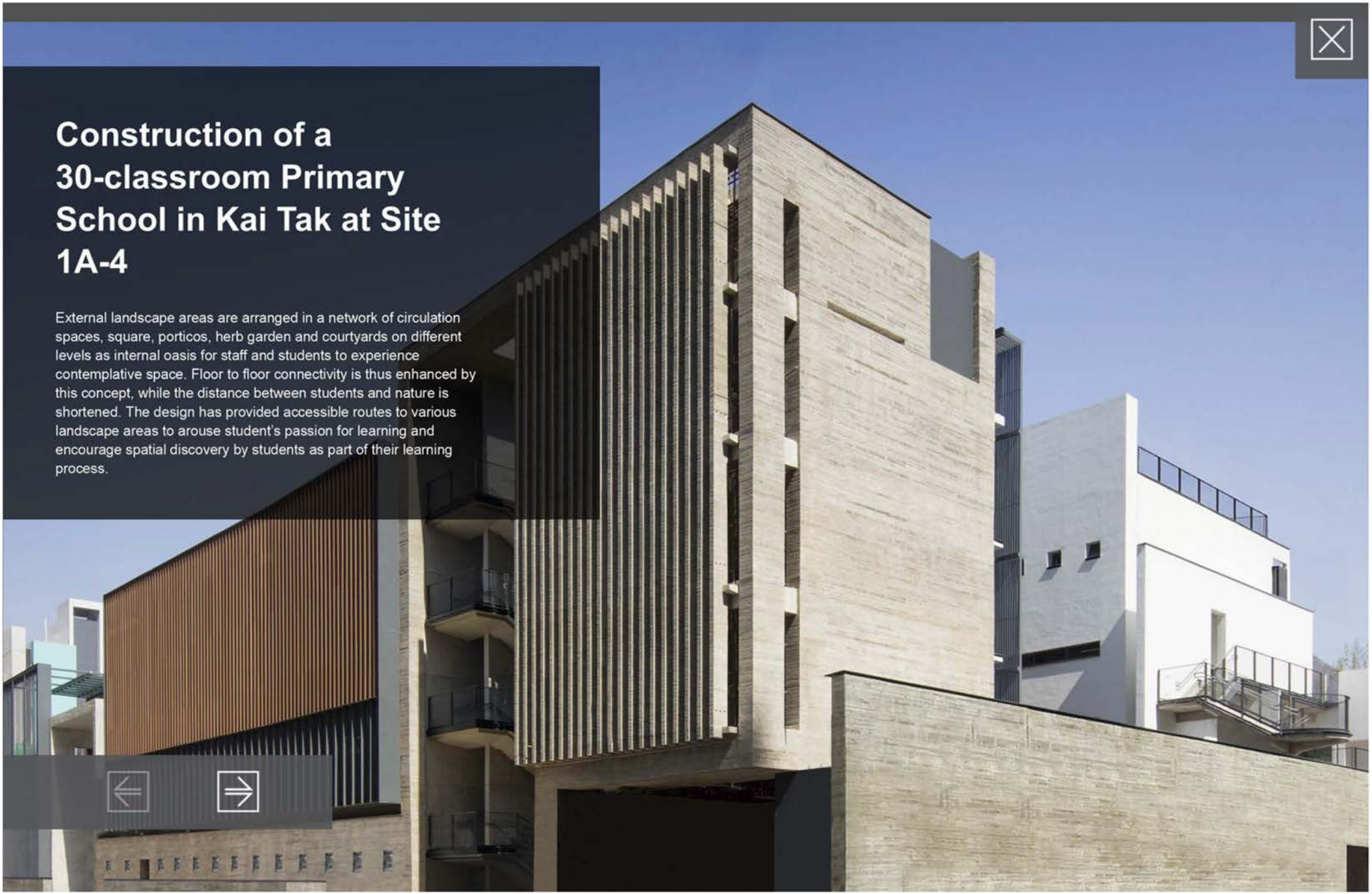
The types of buildings/facilities cover police stations, fire stations, schools, hospitals and etc.

Case Study

Construction of a 30-classroom Primary School in Kai Tak at Site 1A-4

The 30-classroom primary school is located in Kai Tak Development Area with site area of approximately 0.66 hectares. The concept of "OASIS" is adopted for this project which the objective is to create a place of wonder and discovery for staff and students. The OASIS is the prototype of a low-rise school building with dispersed landscape areas on various floor levels to create a more interactive environment to staff and students.

More Details

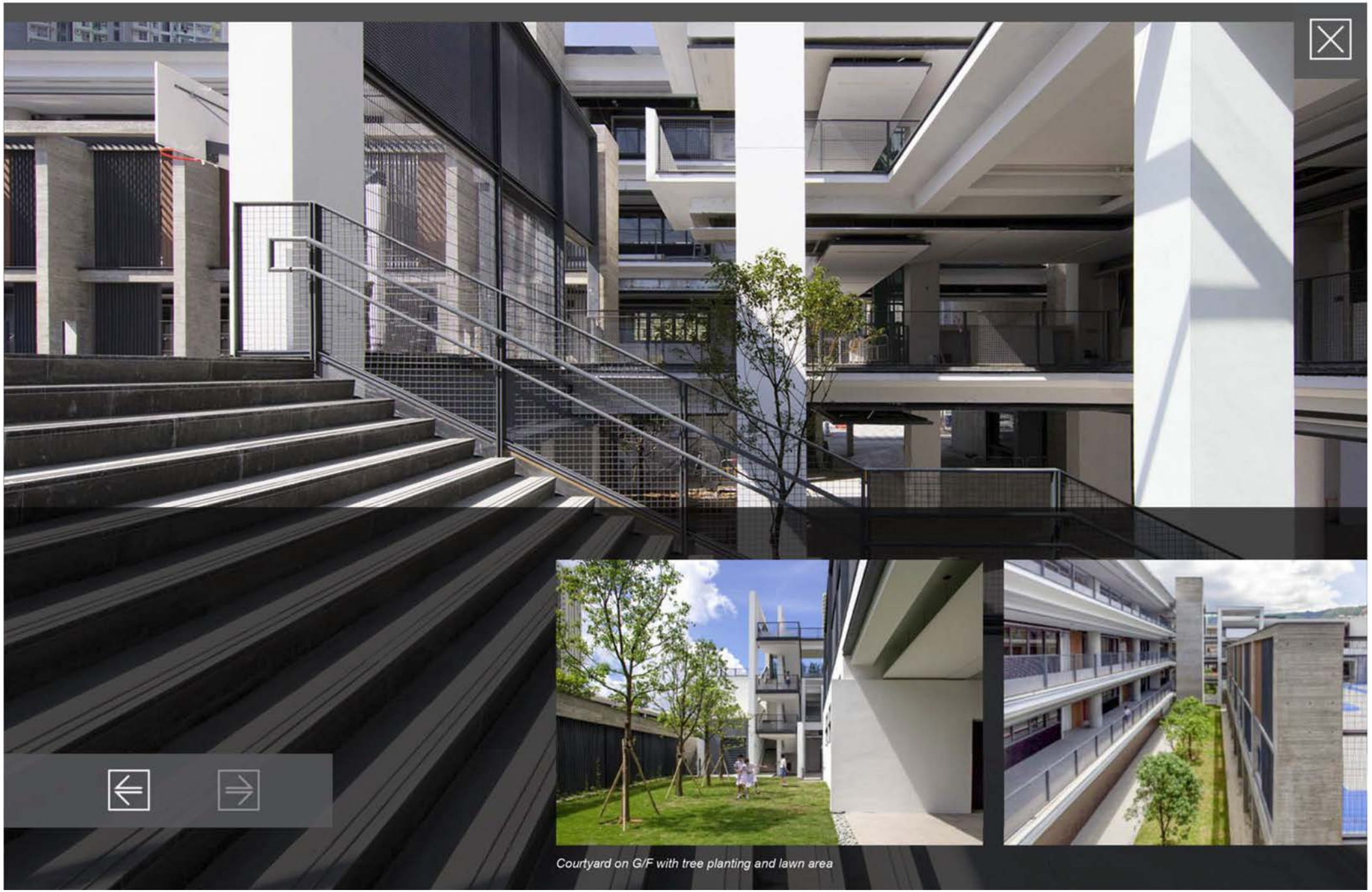


Construction of a 30-classroom Primary School in Kai Tak at Site 1A-4

External landscape areas are arranged in a network of circulation spaces, square, porticos, herb garden and courtyards on different levels as internal oasis for staff and students to experience contemplative space. Floor to floor connectivity is thus enhanced by this concept, while the distance between students and nature is shortened. The design has provided accessible routes to various landscape areas to arouse student's passion for learning and encourage spatial discovery by students as part of their learning process.

Overview of the primary school

Grand lawn on 3/F in front of library



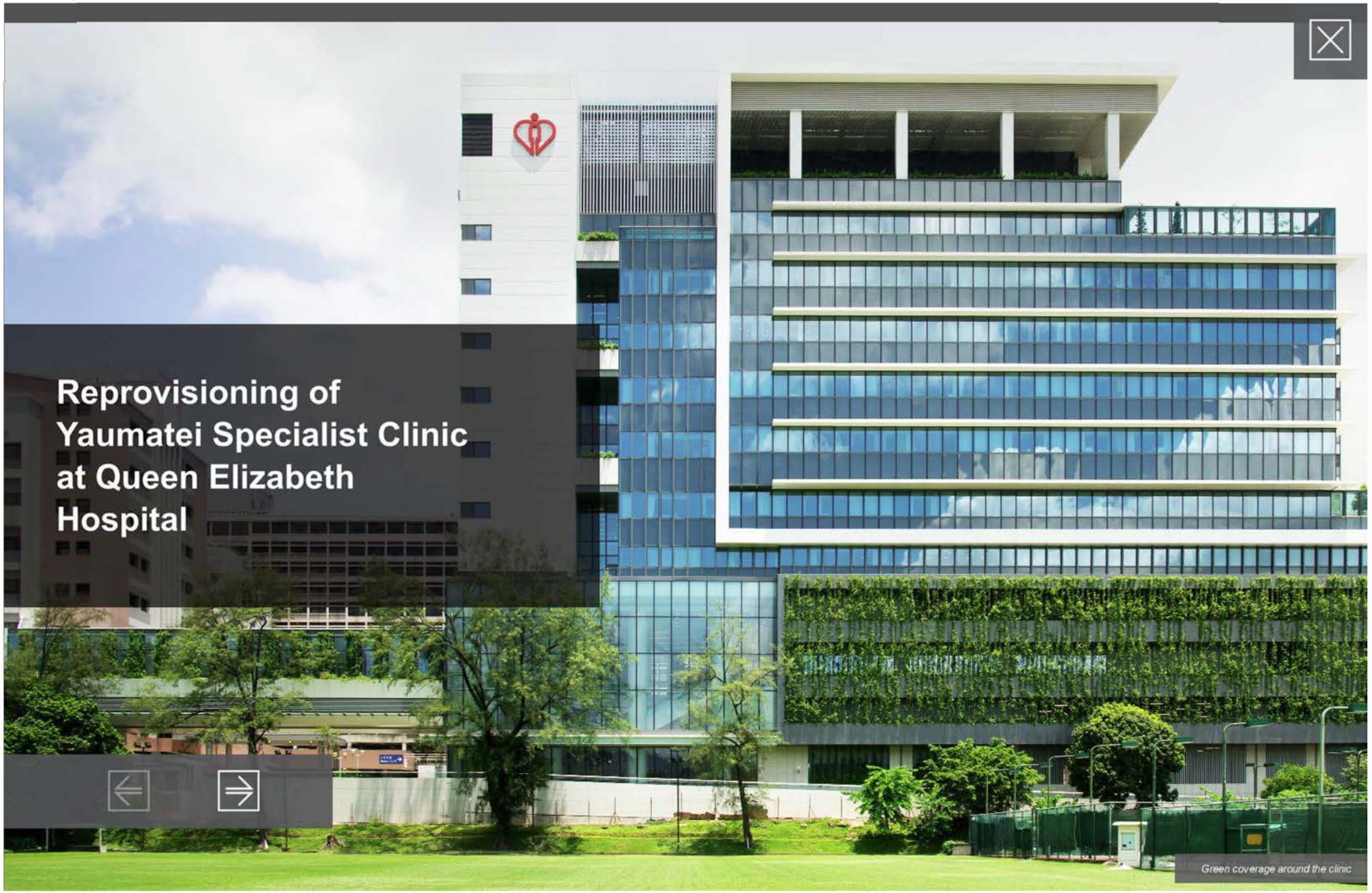
Courtyard on G/F with tree planting and lawn area

Case Study

Reprovisioning of Yaumatei Specialist Clinic at Queen Elizabeth Hospital

The Yaumatei Specialist Clinic (YMTSC) is an 11-storey building located at Queen Elizabeth Hospital (QEH) in Yaumatei, occupying over 4,000 square metres. It consists of an entrance hall, a taxi/ minibus/ private car drop-off, loading and unloading area for ambulances and goods vehicles, car parking spaces, specialty clinical departments, supporting facilities, a new covered walkway and two new link bridges connecting existing blocks of QEH.

More Details


Reprovisioning of Yaumatei Specialist Clinic at Queen Elizabeth Hospital
Green coverage around the clinic

To promote positive interaction and provide social and therapeutic spaces within the medical tower, recreational and functional spaces with therapeutic purpose are arranged at the rehabilitation garden, whereas non-medical resting environment is provided in the staff garden on roof. Also, to enhance visitors' and patients' experience through planting, and to maximize the visual connection with existing hospital complex and adjacent greenery/landscape settings, the building showcases not just the roof gardens, but also the extensive vertical green wall vegetated on both building façades and link bridges in form of a "Green Back-Drop". The "Green Back-Drop" comprises a series of external balconies/planters extending up to the roof garden and extensive green roofs on link bridges. The link bridges also act as a functional and aesthetical green corridor for connecting the new building to existing medical blocks within QEH compound. A rainwater recycling system is also in place for irrigation.

Vertical greening on building façades

Rehabilitation garden

Staff garden on roof

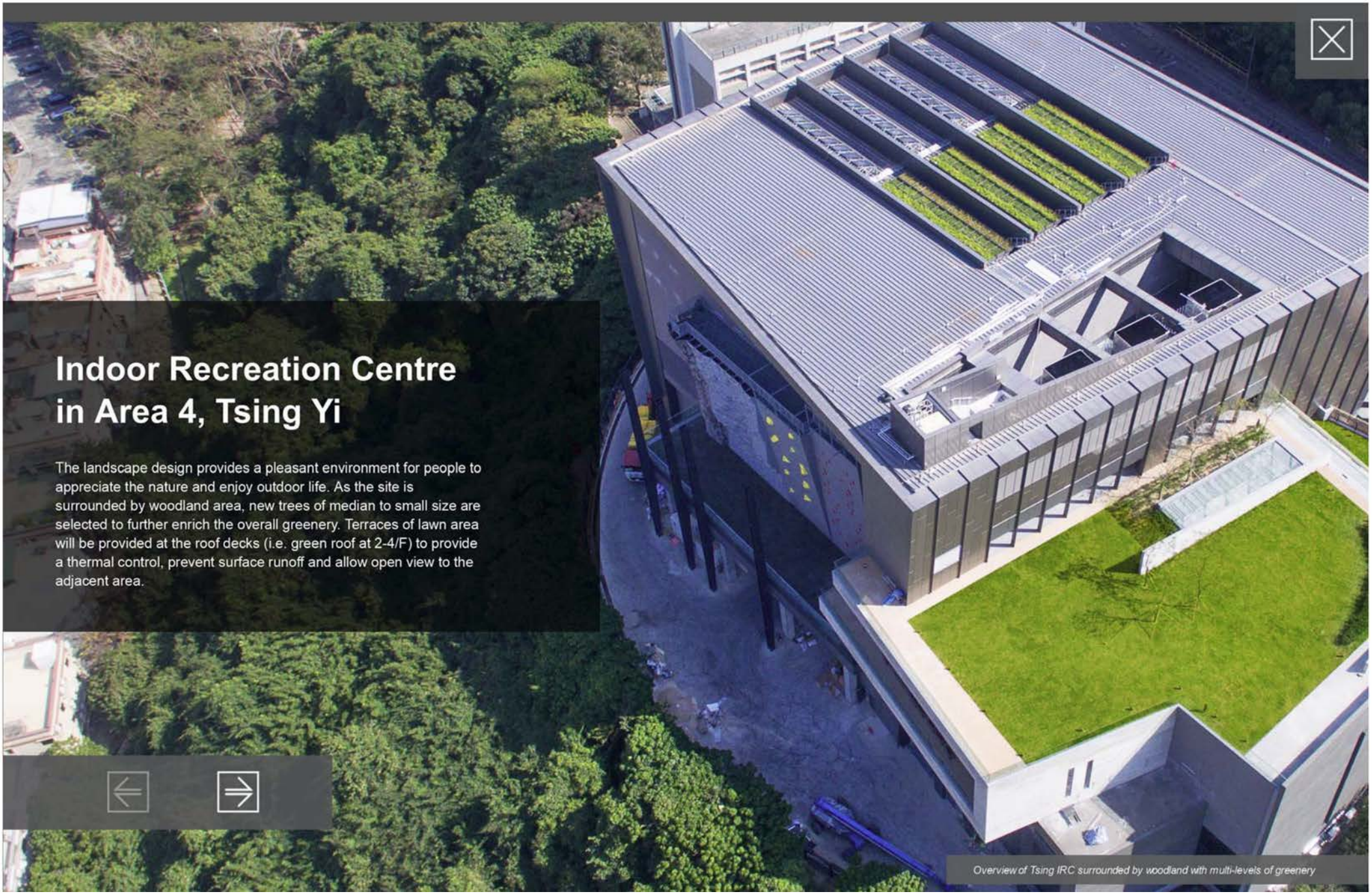
Case Study

Indoor Recreation Centre in Area 4, Tsing Yi

The Indoor Recreation Centre in Area 4, Tsing Yi (Tsing Yi IRC) is a 5-storey building which includes a multi-purpose arena and indoor heated swimming pool.

The Tsing Yi IRC is a prominent green building project. The building design promotes site coverage of greenery by featuring multi levels of green roof and vertical greening, accomplishing a total greenery ratio that is above 30%.

More Details



Indoor Recreation Centre in Area 4, Tsing Yi

The landscape design provides a pleasant environment for people to appreciate the nature and enjoy outdoor life. As the site is surrounded by woodland area, new trees of median to small size are selected to further enrich the overall greenery. Terraces of lawn area will be provided at the roof decks (i.e. green roof at 2-4/F) to provide a thermal control, prevent surface runoff and allow open view to the adjacent area.

Overview of Tsing IRC surrounded by woodland with multi-levels of greenery

Front view of the Tsing Yi IRC with greenery at G/F pedestrian zone

Greening on the roof of 2/F

Top view of Tsing Ying IRC with multi-levels of greenery

Greening on the roof of 3/F

Greening on the roof of 4/F

Greening on roof top with metal tray system

In-house Green Management

ArchSD is committed to infuse green elements to our own operations through proactive environmental management and staff engagement. On one hand we incorporate environmental considerations into our projects, on the other hand we also implement in-house green initiatives to manage our energy, waste, water and indoor environmental quality issues.

Energy Efficiency and Carbon Reduction

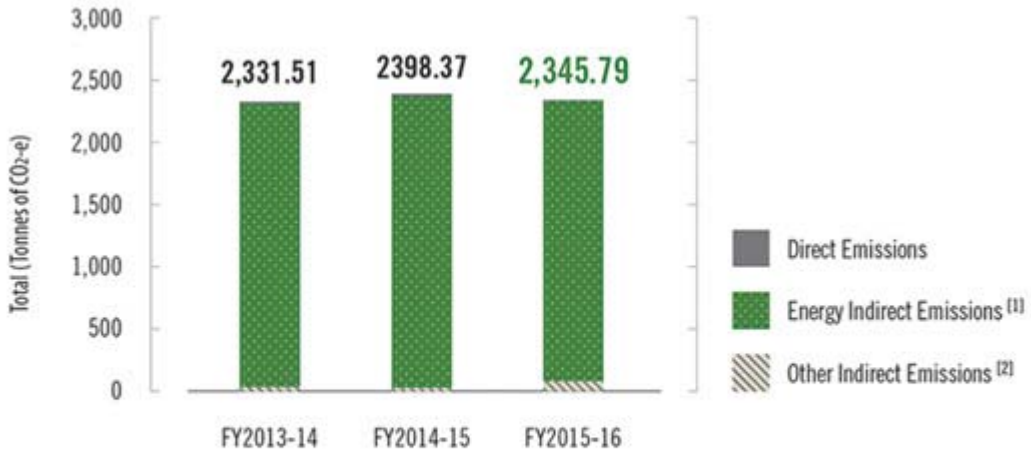
ArchSD has maintained an integrated management system certified to ISO 14001 Environmental Management System, ISO 9001 Quality Management System and OHSAS 18001 Occupational, Health and Safety Management System. In the year under review, we have engaged an external consultant to assist our upgrade of ISO 9001 and ISO 14001 systems. To strengthen our energy management, we also implemented an ISO 50001 certified Energy Management System (EnMS) for our APB Centre since 2014.

To recognise our achievement in energy conservation, we are granted "Class of Excellence" of Energywi$e Certificate in the Hong Kong Green Organisation Certification (HKGOC) scheme.

"Class of Excellence" of Energywi$e Certificate

As part of government's effort to mitigate climate change, all existing government buildings are encouraged to carry out carbon audit regularly to monitor the effectiveness of carbon reduction measures. Since 2010, we have been conducting annual carbon audits and identify room for improvement for our offices in the QGO and APB centre. There are some experimental PV panels on the roof top of the APB Centre. The saving offsets slightly the electricity bill. There three major GHG contributors to the carbon footprints are CO_2, CH_4 and N_2O. Therefore, the carbon footprints of QGO and APB Centre over the past three years are as follows: 305-1

Carbon Emissions in the Queensway Government Office



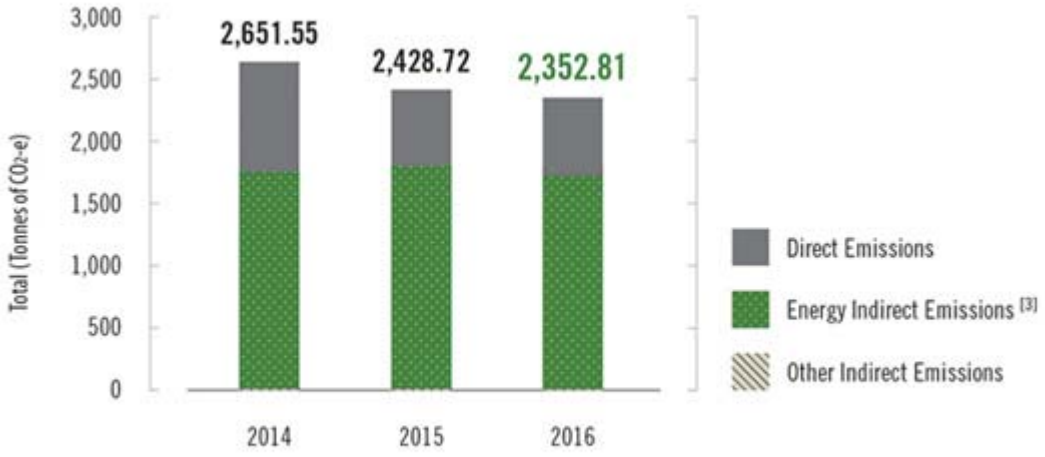
[1] Territory-wide default emission factor was used for the calculation of emissions.
[2] The figures in FY 2013-14, FY 2014-15 & FY 2015-16 are calculated by using the actual paper consumption (A4&A3) and waste paper collected for recycling.

	FY2013-14	FY2014-15	FY2015-16
Direct Emissions (Tonnes of CO2-e)	14.90	18.92	6.90
Energy Indirect Emissions (Tonnes of CO2-e) [1]	2,277.59	2,344.73	2,255.11
Other Indirect Emissions (Tonnes of CO2-e) [2]	39.02	34.72	83.78
Total (Tonnes of CO2-e) [2]	2,331.51	2,398.37	2,345.79

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

[2] The figures in FY 2013-14, FY 2014-15 and FY 2015-16 are calculated by using the actual paper consumption (A4&A3) and waste paper collected for recycling.

Carbon Emissions in APB Centre



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

Waste Management

In line with government's initiatives in waste reduction, we have arranged collection facilities for a wide range of items including waste paper, aluminium cans, plastics bottles, used CDs or DVDs, used rechargeable cells, used printer toner cartridges in our office premises. We also worked proactively with our IT equipment suppliers to facilitate the reuse and recycling of computers in offices. During the year, we successfully recycled 16,060 kg of waste paper and attained the "Class of Excellence" Wastewi$e Certificate of HKGOC in recognition of our effort.


香港綠色機構認證
Hong Kong
Green Organisation Certification
減廢證書
Wastewi$e
—Certificate—
「卓越級別」
Excellence Level
香港特別行政區政府
建築署
Architectural Services Department
The Government of the Hong Kong
Special Administrative Region

"Class of Excellence" of Wastewi$e Certificate

Water Consumption

As an on-going initiative, we monitor potable water and flushing water consumption at our offices on a regular basis. To sustain water resources, we have adopted a variety of water saving devices including sensor taps, dual flush cisterns and devices with water efficiency labels under Water Efficiency Labelling Scheme in APB Centre. With the aim to disseminate water saving measures to staff, we have developed and incorporated water saving tips and guidelines into the Department's General Circular "Measures of Green Housekeeping".

Indoor Environmental Quality

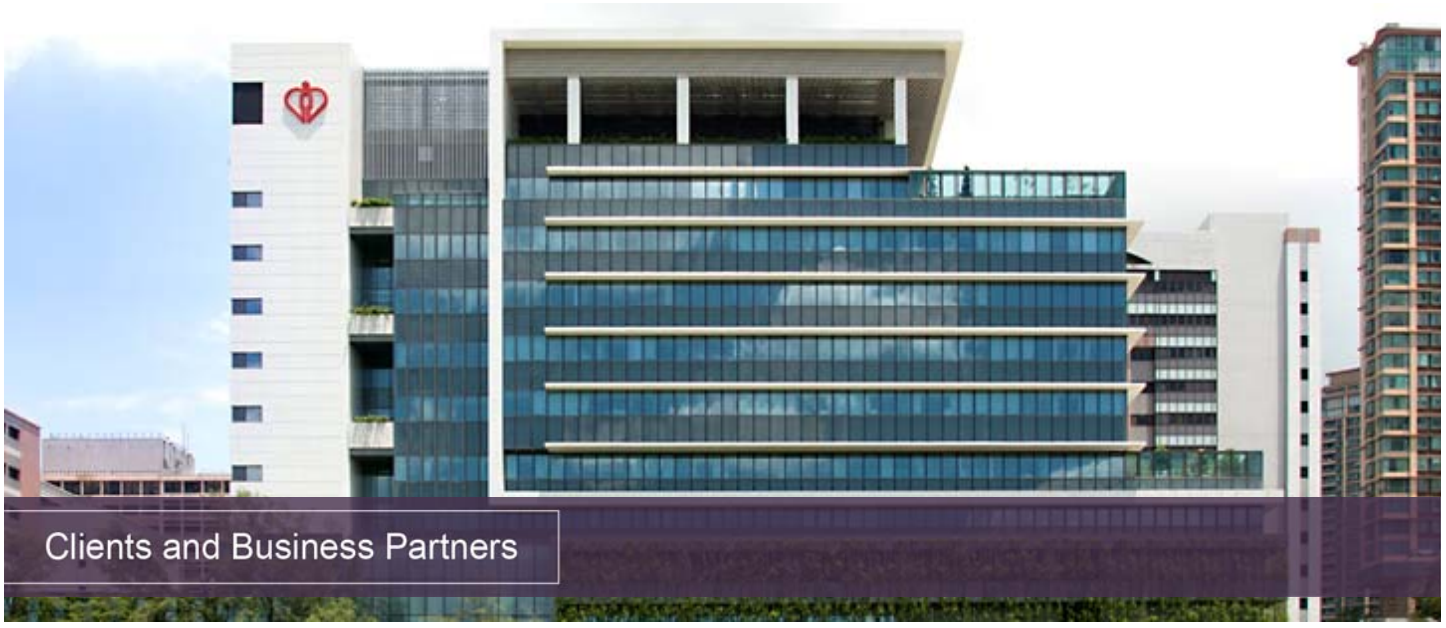
Good indoor air quality (IAQ) is fundamental to the maintenance of health. To ensure a healthy and safe environment for our staff, we strictly follow relevant guidelines published by the Environmental Protection Department to maintain good IAQ levels in our workplace. To regularly monitor and assess the IAQ, we also engage accredited bodies in conducting IAQ measurements on the parameters specified in EPD's guidelines. During the year, we are granted "Basic Level" of IAQwi$e Certificates for QGO and APB Centre.

"Basic Level" of IAQwi$e Certificates for QGO and APB Centre

Cultivating a Green Culture

Green management is effective in educating and encouraging our staff to adopt environmentally responsible behaviours. A team of Green Wardens (previously known as energy warden) with members from various branches and divisions has been appointed since 2006 to assist in implementing and monitoring the environmental programmes of ArchSD. Currently, we have around 96 nos. of Green Wardens in the team to safeguard our green measures.

To continuously enhance our staff awareness, we provide training for staff members to enhance their environmental awareness and knowledge in specific green aspects. Up to December 2016, 176 staff members of ArchSD have obtained the BEAM Pro qualification.



Project Quality Management

ArchSD strives to provide quality public buildings and facilities for the society. To ensure that users' and the public's expectation on our facilities could be met, and preferably met in a sustainable way, we maintain a collaborative long-term relationship with our industry partners, user departments, and the general public. All our contractors and suppliers acknowledge to abide Hong Kong Laws, including anti-corruption legislation, when submitting their tender for Government works. 205-2

Client Satisfaction

With efficient operations and comprehensive project management, we are committed to delivering high quality and professional services to our clients.

To better respond to the ever-increasing expectation from our clients, a Client Satisfaction Survey is conducted annually to invite clients' feedback. In this reporting year, we conducted 20 surveys on projects that were under planning or newly completed. The survey focused on understanding clients' satisfaction level on our overall performance and our responsiveness in communication with clients.

Satisfied Level on Overall Performance

100%	of the completed projects achieved Satisfied Level or above on overall performance

Enhancement on the Communication with Clients

100%	achieved the target – replying the clients within 2 months after the survey on the progress of the observations raised
100%	achieved the target – informing the clients within 1 month after the final completion of the follow-up actions (one in 2016)

Building Sustainability

To align with the Government's long-term strategies and policies in combating climate change, ArchSD worked on various initiatives to improve building environmental performance, covering both new and existing buildings. With our influence in the industry, we strived to drive the adoption of green elements and practices in building development among our contractors and other industry partners.

BEAM Assessment on Buildings

Since 1996, ArchSD has actively implemented the Hong Kong Building Environmental Assessment Method (also known as BEAM) on its new structural development. Developed as a voluntary scheme, BEAM specifies sustainability criteria ranging from planning, design, construction, commissioning, to management, operation and maintenance of buildings. When a building is confirmed meeting certain pre-defined performance criteria after independent verification, associated credits are awarded and an overall performance grade is then determined.

By the end of 2016, we had successfully obtained the BEAM and BEAM Plus certifications for 43 buildings and BEAM Plus Interior certifications for 2 offices.

Certified Buildings under the BEAM by the End of 2016

Type of Certificate	Rating		Subtotal
	Excellent	Very Good	
BEAM Certification* (Version 1/96R, 2/96 & 2/96R)	11	2	13

Type of Certificate	Rating		Subtotal
	Platinum	Gold	
BEAM Certification** (Version 4/03 & 4/04)	18	10	28
BEAM Plus (New Buildings) Certification*** (Version 1.1 & 1.2)	1	1	2
			Total
			43
BEAM Plus (Interior) Certification	2	0	2

* Reference to specific versions of the BEAM Certificate:

- Version 1/96R - An Environmental Assessment Method for New Air-conditioned Office Premises. 1999;
- Version 2/96 - An Environmental Assessment Method for Existing Air-conditioned Office Premises. 1996; and
- Version 2/96R - An Environmental Assessment Method for Existing Air-conditioned Office Premises. 1999.

** Reference to specific versions of the BEAM Certificate:

- Version 4/03 - Pilot Versions for New Buildings; and
- Version 4/04 - Building Environmental Assessment Method for New Buildings. 2004.

*** Reference to specific versions of the BEAM Plus Certificate:

- Version 1.1 - BEAM Plus New Buildings (2010.04); and
- Version 1.2 - BEAM Plus New Buildings (2012.07).

Recognition to Contractors

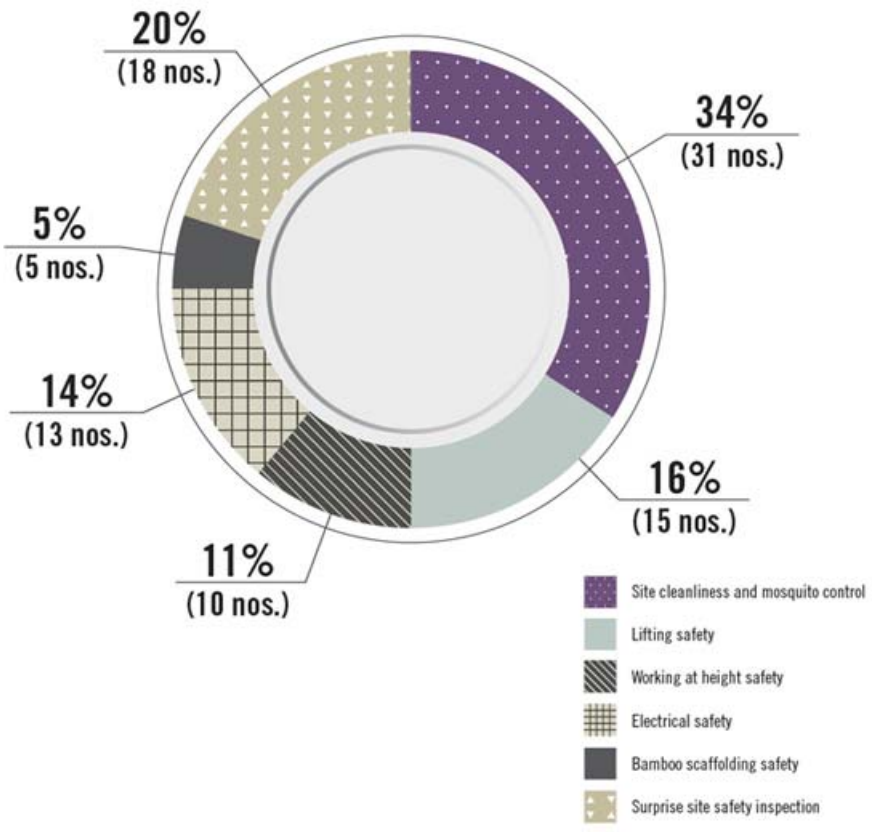
We view our contractors as important partners in implementing sustainable measures at building sites. To make sure contractors are equipped with sufficient knowledge in this regard, ArchSD has developed a knowledge bank consisting of guidance notes, briefing notes, safety audit results, site safety checklists and other relevant documents, to assist contractors in adopting industry best environmental and social practices. Furthermore, we forward safety information to the contractors from time to time including new Work Safety Alerts issued by Labour Department and safety reminders for their attention.

In addition to regular routine site safety inspections, our Departmental Safety & Environmental Advisory Unit also conducts surprise site safety inspections and inspections concerning specific site safety topics or issues, to ensure contractors are practising safety measures diligently.

Throughout the reporting year, we completed a total of 92 site inspections on selected site safety topics or issues and surprise site safety inspections for new works sites, including:

- Site cleanliness and mosquito control (31 nos. of inspection);
- Lifting safety (15 nos. of inspection);
- Working at height safety (10 nos. of inspection);
- Electrical safety (13 nos. of inspection);
- Bamboo scaffolding safety (5 nos. of inspection); and
- Surprise site safety inspection (18 nos. of inspection).

Site Inspections on Selected Safety Topics



For contractors, subcontractors and site personnel that have demonstrated excellent performance in environmental and social aspects, they were appreciated through two award schemes, namely the Considerate Contractors Site Awards and the Green Contractor Award.

Considerate Contractors Site Awards

The Considerate Contractors Site Awards scheme has been organised by the Development Bureau (DEVB) (since 1995) and co-organised by the Construction Industry Council (since 2011). Successful award candidates, in the category of Repair Maintenance, Alteration and Addition (RMAA) Works Contracts, or New Works Contracts, must demonstrate good site safety and environmental performance, in addition to a considerate attitude. The scheme is further divided into different award categories, such as the Considerate Contractors Site Awards, the Outstanding Environmental Management and Performance Awards, Model Worker Awards, Model Frontline Supervisor Awards and Model Subcontractor Awards.

The 23rd Considerate Contractors Site Award Scheme Award Presentation Ceremony was held on 26 September 2017, commending a number of "considerate" sites from both the public works and the non-public works. Our contractors received the great honour of winning eight awards in total, including:

Contracts	Achievements	
	Considerate Contractors Site Award	Outstanding Environmental Management & Performance Award
New Works Category		
Design and Construction of West Kowloon Government Offices in Yau Ma Tei, Hong Kong (Contract No. SS C502) Contractor: Hip Hing Engineering Company Limited / Hip Hing Construction Company Limited	Gold	Gold
A school for social development for girls at Choi Hing Road, Kwun Tong, Kowloon (Contract No. SS C506) Contractor: Fook Lee Construction Company Limited	Merit	Merit
Construction of Staff Quarters for Immigration Department at Heng Lam Street, Lok Fu, Kowloon (Contract No. SS D503) Contractor: Chinney Construction Co. Ltd.	Merit	Merit
Design and Construction of New Territories West Regional Office and Water Resources Education Centre of Water Supplies Department at Junction of Tin Cheung Road and Tin Pak Road, Tin Shui Wai, New Territories (Contract No. SS C504) Contractor: Chun Wo Construction & Engineering Co., Ltd.	Merit	--
Design and Construction of Kwun Tong Staff Quarters at Tseung Kwan O Road, Kowloon (Contract No. SS D502) Contractor: Yau Lee Construction Co., Ltd.	Merit	--
RMAA Works Category		
Term Contract for the Alterations, Additions, Maintenance and Repair of Buildings and Lands and Other Properties for which the Architectural Services Department (Property Services Branch) is responsible for the Government of HKSAR (Designated Contract Area: Tai Po, North District and Outlying Islands (North)) (Contract No. TC B952) Contractor: Sun Fook Kong Construction Ltd.	Bronze	--
Term Contract for the Alterations, Additions, Maintenance and Repair of Buildings and Lands and Other Properties for which the Architectural Services Department (Property Services Branch) is responsible for the Government of HKSAR (Designated Contract Area: Hong Kong Island Eastern and Outlying Islands (South)) (Contract No. TC B922) Contractor: Wan Chung Construction Co., Ltd.	Merit	--
Term Contract for The Maintenance of Slopes For Which ASD (Property Services Branch) is Responsible For Hong Kong Island and Outlying Islands (South) (Contract No. TC B928) Contractor: Chun Wo Construction & Engineering Co., Ltd.	Merit	--

Green Contractor Award

Since 2001, ArchSD has been organising the Green Contractor Award (the Award) on an annual basis. Aiming at encouraging contractors to minimise their environmental impact during their works, the Award acknowledged contractor's achievement in energy saving, water conservation, waste reduction, emissions mitigation, and environmental management.

In 2016, the Green Contractor Award was presented to the following four contractors, which were projects under construction during the year or maintenance projects with contract sums exceeding $30 million.

Gold Award
Fook Lee Construction Co., Ltd

■ Contract No. SS C506 The Construction of a School for Social Development for Girls at Choi Hing Rd., Kwun Tong, Kowloon

Silver Award

Hip Hing Joint Venture

- Contract No. SSC502
  Design and Construction of West Kowloon Government Offices in Yau Ma Tei

Bronze Award

Able Engineering Co., Ltd

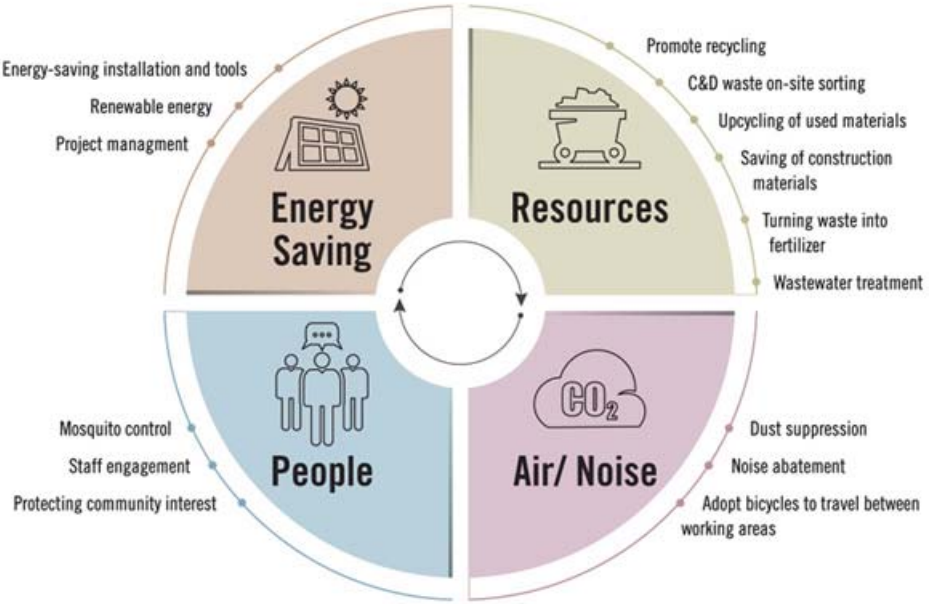
- Contract No. SSW326
  Design and Construction of Redevelopment of Tai Lam Centre for Women

Term Contract Award
Wan Chung Construction Company Limited

- Contract No. TCB929
  Term Contract for the Maintenance of Slopes for which the Architectural Services Department (Property Services Branch) is Responsible for the Government of the Hong Kong Special Administrative Region [Designated Contract Area: Kowloon and Lantau Island]

Green Measures on Site

To conduct continual improvement on on-site environmental performance, our contractors have applied various measures related to site operations of ArchSD projects, among which some innovative and self-initiated practises were introduced. Highlights of the environmental practices during the reporting period are depicted below.



Energy Saving

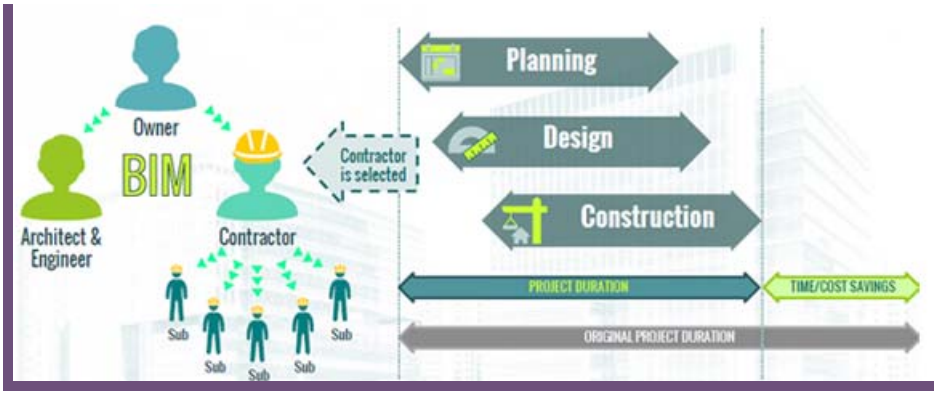
Energy-saving installation and tools

T5 Fluorescent Lamps[3] (Left) and Cordless Energy-saving Hand Tools[4] (Right)

Renewable energy

Solar Powered Lamp (Left) and Solar Powered Electric-charging Facilities (Right)[2]

Project management



Building Information Modelling for Saving Construction Time and Carbon Footprint[2]

Resources

Promote recycling

Recycling Machines with Compressor and Code Screening Function[1]

C&D waste on-site sorting

On-site Sorting of C&D Waste for Better Recycling/ Disposal[1,3]

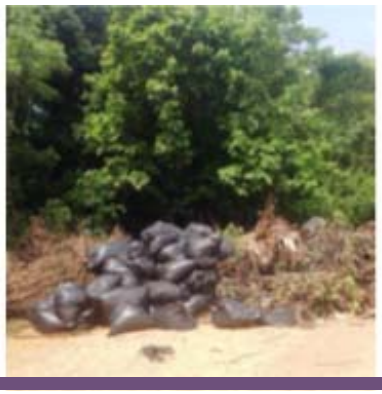
Upcycling of used materials

Modified Trolley (Left) and Temporary Façade (Right) Made from Used Materials[1]

Saving of construction materials

Metal Lift Shaft Framework to Reduce the Consumption of Construction Materials[2]

Turning waste to fertilizer



Collection of Yard Waste for Decomposing into Fertilizer[4]

Wastewater treatment

Treatment of Wastewater prior Disposing or Reusing[3]

Air/ Noise

Dust suppression

Automatic Water Spraying (Left) and Wheel Washing System with Recycled Water (Right)[2]

Noise abatement

Noise Enclosures for Percussive Piling (Left) and Night Works (Right)[2]

Adopt bicyles to travel between working areas

Adopt Bicycles instead of Vehicles for Transporting between Working Areas[3]

People

Mosquito control

Frequent Mosquito Control[3,4]

Staff engagement

Regular Meetings on Site Safety and Environmental Awareness and Staff Recognition[2]

Protecting community interest

Street Washing on the Periphery of the Site (Left) and Organising Seminars to Noise Sensitive Receivers for Gaining Mutual Understanding regarding the Project (Right)[2]

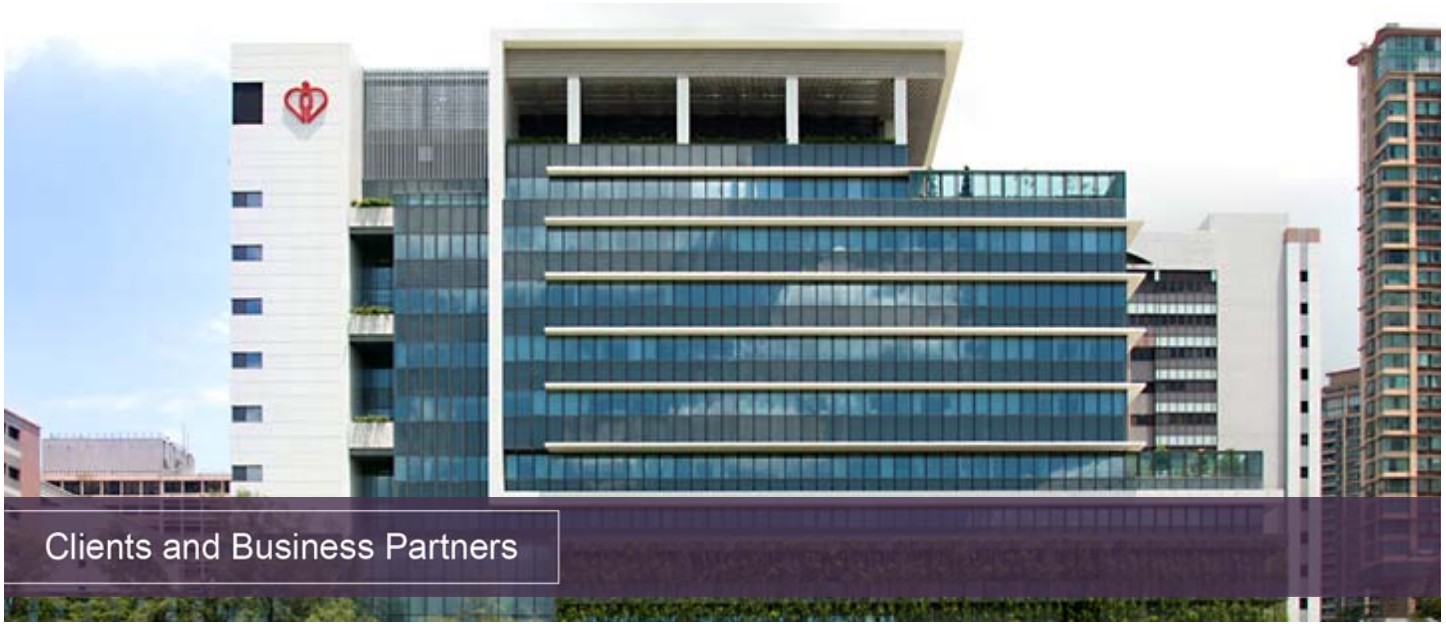
Remarks:

1. Fook Lee Construction Co., Ltd

2. Hip Hing Joint Venture

3. Able Engineering Co., Ltd

4. Wan Chung Construction Company Limited



Social Participation and Engagement

Through participating in various public activities and events, ArchSD is dedicated to sharing our industrial knowledge and technical expertise with peers and the community for the betterment of the society.

Professional Events

Green and sustainable building development has been one of the main focus areas at ArchSD. Through exhibiting in various public events, we communicated latest information and demonstrated newest innovations on sustainable building to the industry and general public.

In October 2016, we participated in the 11th edition of Eco Expo Asia, which is jointly organised by the Hong Kong Trade Development Council (HKTDC) and Messe Frankfurt (HK) Ltd., and co-organised by the Environment Bureau. ArchSD and other industry pioneers were brought together under the theme of “Green Solutions for a Changing Climate” to exhibit our achievement in developing a more sustainable building environment for the society.

ArchSD Exhibition at Eco-expo 2016

Apart from Eco Expo Asia, ArchSD also participated in the InnoCarnival held from 29 October to 6 November 2016. InnoCarnival is a highlight event of the annual mega programme “InnoTech Month” organised by the Innovation and Technology Commission (ITC), featuring multiple exhibitions, workshop, seminar, guided tour, etc. ArchSD was involved in exchanging its sustainable design approach with the visitors at the exhibitions.

Display Booth at InnoCarnival 2016

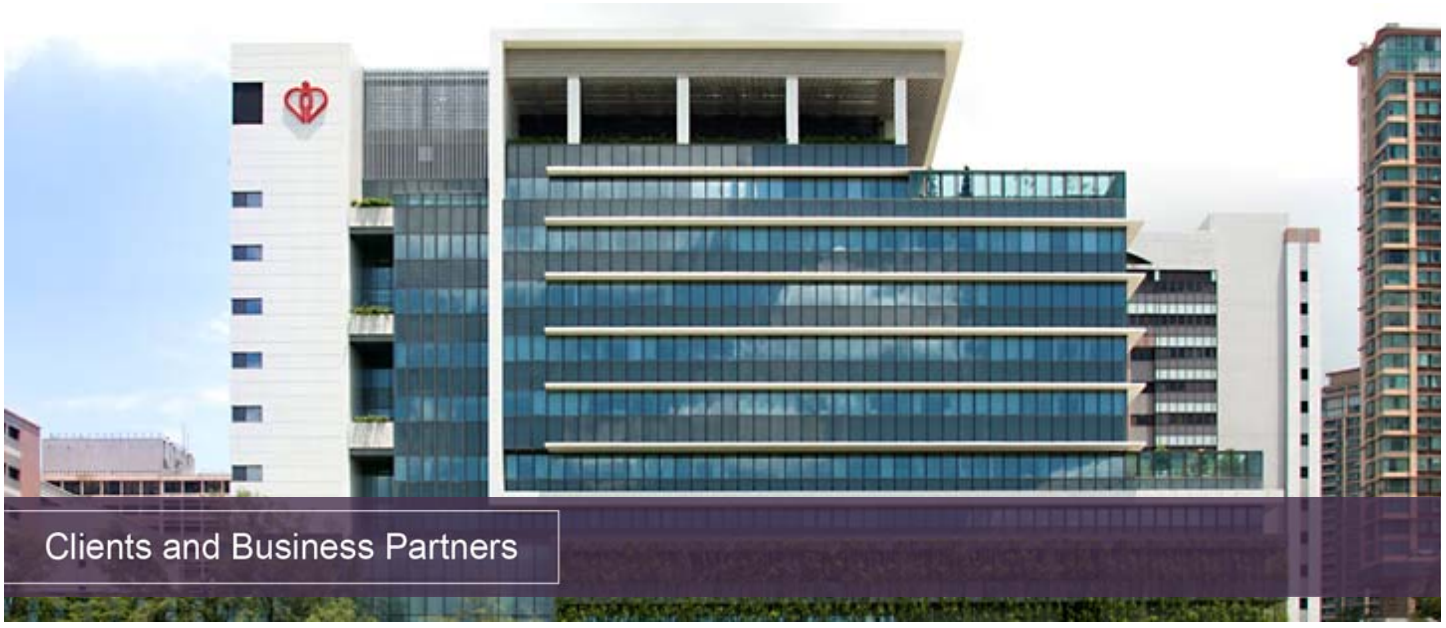
Read a text transcript of this video

Community Events

As one of the major exhibitors for many years, ArchSD has participated in the Hong Kong Flower Show 2016 (Flower Show) organised by the Leisure and Cultural Services Department. This year's theme was set as "Blossoms in Vivid Art 2016". Throughout the event held between 11 and 20 March, over 200 organisations from 17 countries gathered and showcased their floral art displays, and attracted over 530,000 visitors.

This year, ArchSD brought its landscape design named "Butterflies Tangling in the Blossoms" to the show. The landscape design, highlighted with the theme flower of "Antirrhinum majus", integrated exotic flowers, landscape structure and floral art displays to embrace the concept of freedom and dynamism. This intriguing display was awarded the Gold Award for Design Excellence.

Butterflies Tangling in the Blossoms – ArchSD's Landscape Display at Flower Show 2016



Community Support

ArchSD is eager to support staff's participation in volunteer services that are targeted at different disadvantaged groups in the community. In virtue of the contribution from our Volunteer Service Team, we have served a total of 1,185 hours to support 18 community activities in 2016.

Staff Volunteer Service

	2016	2015	2014
Total number of hours of staff volunteer service	1,185	1,233	1,284
Number of active Volunteer Service Team members[Note 1]	16	18	19
Number of staff received Commendation for voluntary service[Note 2]	11	15	12
Number of volunteers	46	44	39
Number of voluntary projects completed	18	21	28

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.

Highlights of Voluntary Events in 2016

Voluntary Service at Tung Wah Group for the Elderlies Graduation Ceremony

Painting Programme for the Elderly

Gifts for the Elderlies

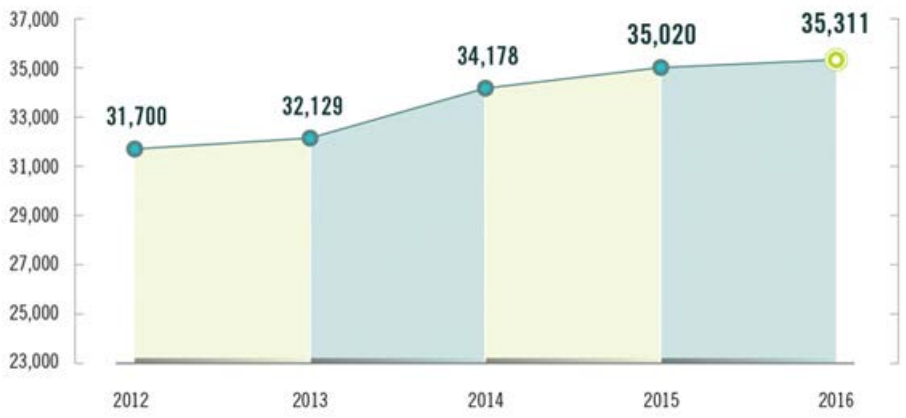
Staff Development

ArchSD believes that people is always our most important asset. By offering a comprehensive range of training and development programmes which are aligned with departmental business goals and staff development needs, we endeavour to equip our staff with the knowledge and skills required for meeting the increasing challenges faced by the organisation. Our programmes cover topics related to Leadership & Management Skills, Professional & Vocational Training and Career Development.

During the year, we organised 366 training courses that account for a total of 35,311 training hours, i.e. an average of 19.2 training hours per staff member.

Training Type	No. of Trainees	No. of Training Hours
Leadership & Management Skills	129	2,236
Professional & Vocational Training	7,158	26,784
Career Development	1,015	6,291
Total	**8,302**	**35,311**

Staff Training Hours



Staff Recreational Activities

To nurture a harmonious working culture, we always encourage our staff to participate in various recreational activities to foster better team spirit and build staff relations. This year, our staff took part in variety of sports and recreational activities organised by ourselves or by external organisations. Some highlights during the year are presented below:

Eco Tour to Lai Chi Wo

Health Qigong Ba Duan Jin Class

Annual Dinner

ArchSD Dragon Boat Race Team

Second Runner-up in the Hong Kong Fire Services Department Swimming Gala

To improve our sustainability performance continuously, we have established a number of sustainability objectives and targets to review our performances each year. In 2016, we achieved most of our targets regarding environmental, social and project quality issues. Details of our achievements during the year and the targets for 2017 are tabulated below.

On Environmental Issues

Long Term Objectives	Targets for 2016	Achievements	Target Compliances	Targets for 2017
Reduce water consumption	Water taps in 100% of new projects to be Grade 2 or above; 50% of these projects to be Grade 1 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 15 new projects are Grade 2 or above, and 53.3% (8 out of 15) of water taps are Grade 1 or above under WELS of WSD except due to genuine operational or technical needs	Complied	Water taps in 100% of new projects to be Grade 2 or above; 50% of these projects to be Grade 1 under the Mandatory Water Efficiency Labelling Scheme (WELS) of WSD unless there are genuine operational or technical needs for not doing so (such as water taps for central laundry, cleansing, clinical and laboratory use)
	In not less than 80% of new projects, either rainwater/ grey water recycling system should be installed	100% (13 out of 13) of projects installed rainwater/ grey water recycling system	Complied	In not less than 80% of new projects, either rainwater harvesting/ grey water recycling system should be installed. 60% of these projects to achieve a reduction of 5% or more in the annual consumption of

Long Term Objectives	Targets for 2016	Achievements	Target Compliances	Targets for 2017
				fresh water unless the water consumption for irrigation use is less than 5% of the total annual consumption of fresh water.
Reduce energy consumption	To achieve OTTV standard of not more than 23 W/m^2 for 100% of all new projects with air conditioning installations, and 75% of these projects to achieve an even lower OTTV of not more than 18 W/m^2	100% (10 out of 10) projects with OTTV less than 23 W/m^2, and 80% (8 out of 10) projects with OTTV less than 18 W/m^2	Complied	2016 targets to be maintained in 2017
Promote a healthy and sustainable development	80% 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	100% (15 out of 15) of the new projects have used PFA concrete	Complied	85% of the new in-house and outsourced projects with Capital Project Estimate (CPE) / Approved Project Estimate (APE) greater than $30 millions shall use pulverised-fly ash (PFA) or ground-granulated blast-furnace slag (GGBS) in concrete.
Reduce the consumption of natural resources	To reduce the use of timber by using alternative structural solutions such as metal hoarding, system formwork, metal formwork, semi-precast flooring system, precast roofing, dry walls and other structural means such as steel structural section, left-in formwork, etc.	0.071 m^3/$millions timber saved	Complied	2016 targets to be maintained in 2017
Comply with all relevant environmental legislation	To maintain a database to collect and analyse information regarding contractors' environmental regulatory performance	In 2016, there was 0.122 environmental legislation conviction per 100,000 man hours in ArchSD sites against 0.191 no. of convictions per 100,000 man hours in all Hong Kong sites	Complied	2016 targets to be maintained in 2017
Increase environmental awareness	To record and monitor general technical advice on environmental protection measures in	1,483 nos. of environmental advice given as at 31/12/2016	Complied	2016 targets to be maintained in 2017

Long Term Objectives	Targets for 2016	Achievements	Target Compliances	Targets for 2017
	line with Arch SD environmental policy			
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 2016 was 18,082 reams. With data normalised, there were 51.7% and 15.3% saving when compared with 2005 and 2015 respectively	Complied	2016 targets to be maintained in 2017
	To reduce electricity consumption (exclude A/C system) by 1% at QGO as compared with the base year 2013	Actual consumption up to Q4 of 2016 was 1,069,613 kWh. With data normalised [1], the consumption was 994,842 kWh. There was 4.9% and 0.3% saving when compared with 2013 and 2015 respectively	Complied	To reduce electricity consumption (exclude A/C system) by 1.2% at QGO as compared with the base year 2013
	To reduce electricity consumption by 1% at APB as compared with the base year 2013	Actual consumption up to Q4 of 2016 was 2,455,810 kWh. With data normalised [1], the consumption was 2,247,592 kWh. There was 11.9% and 2.9% saving when compared with 2013 and 2015 respectively	Complied	To reduce electricity consumption by 1.5% at APB as compared with the base year 2013

[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 2016	Achievements	Target Compliances	Targets for 2017
Improve the quality of our services and project delivery	To commence not less than 90% of new Public Works Programme (PWP) projects scheduled in 2016 in accordance with the commencement dates committed in the 2015 Resource Allocation Exercise (RAE)	100% (13 out of 13) of new projects (excluding B- projects and purchase items and those which are delayed due to external factors beyond ArchSD's Control) commenced works in 2016	Complied	To commence not less than 90% of new Public Works Programme (PWP) projects scheduled in 2017 in accordance with the commencement dates committed in the 2016 RAE
	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	The Original Estimate was $12,837.9 millions. As at 30/12/2016, the Revised Estimate was $13,267.2 millions which represented a forecasted overspending of $429.3 millions (3.3%) when compared to the Original Estimate	Complied	To monitor the expenditure on Capital Works Programme (CWP) projects within ArchSD's purview against the original estimates, ensuring that the over-spending and under-spending shall be within 5% of the corresponding provisions in the Printed Estimates
	To ensure 100% of capital and minor works projects to be completed within the agreed time scale (in the Quarter of the year calendar)	100% (31 projects) have been completed within the approved time scale in the scheduled quarter of 2016	Complied	2016 targets to be maintained in 2017
	100% of projects to have certificate of completion issued within one month after the certified date of substantial completion	100% (10 out of 10) of completion certificates were issued within one month after the certified date of substantial completion	Complied	2016 targets to be maintained in 2017
	90% of projects to complete outstanding works and defects rectification and issue maintenance certificate within 6 months from the expiry of the maintenance period, excluding those which are delayed due to external factors beyond ArchSD's control	100% (11 out of 11 projects) of maintenance certificates were issued within the 6-month tolerance	Complied	2016 targets to be maintained in 2017

Long Term Objectives	Targets for 2016	Achievements	Target Compliances	Targets for 2017
	100% of the completed projects to achieve Satisfied Level or above on the overall performance in Client Satisfaction Survey	100% (20 out of 20 projects) of the projects have achieved Satisfied Level or above on the overall performance	Complied	2016 targets to be maintained in 2017

On Social Issues

Long Term Objectives	Targets for 2016	Achievements	Target Compliances	Targets for 2017
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 5 reportable accidents of ArchSD staff in 2016, equivalent to an accident rate of 2.76 reportable accidents per 1,000 staff. We have taken following measures to enhance staff's safety including: ■ Enhancing the monitoring of contractors' site housekeeping; and ■ Improvement of office's facility and equipment.	Not complied	2016 targets to be maintained in 2017
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	0.26 reportable accidents per 100,000 man-hours worked	Complied	2016 targets to be maintained in 2017
Promoting the awareness on safety and health amongst construction workers	At least 45% of ArchSD contracts would participate in the ArchSD Site Safety Model Worker Award Scheme	Up to 31/12/2016, 75% of ArchSD contracts participated in Safety Model Worker Award Scheme	Complied	2016 targets to be maintained in 2017
Promoting the awareness on safety and health amongst contractors	At least 50% of ArchSD eligible new works contracts and 35% of eligible maintenance term contracts would participate in Development Bureau Considerate Contractors Site Award Scheme (CCSAS)	87% (20 out of 23) of eligible ArchSD new works contracts and 95% (18 out of 19) of eligible maintenance term contracts participated in CCSAS 2016	Complied	At least 50% of ArchSD eligible new works contracts and 50% of eligible maintenance term contracts would participate in Development Bureau Considerate Contractors Site Award Scheme (CCSAS)
Enhancing the occupational safety and health within the workplace	Safety walk for workplaces would be conducted at least quarterly	Safety walk at workplaces for 2016 has been conducted accordingly	Complied	2016 targets to be maintained in 2017
Strengthening health and safety knowledge	At least 12 external safety training courses	Up to 31/12/2016, 17 external training courses	Complied	2016 targets to be maintained in 2017

Long Term Objectives	Targets for 2016	Achievements	Target Compliances	Targets for 2017
for project staff with external training	on latest safety technology, current safety legislation, accident investigation, etc. should be arranged for project and office staff per year	were conducted and attended by 704 professional/technical/site staff		
Upkeeping 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	6 in-house workshops / seminars were conducted	Complied	2016 targets to be maintained in 2017

There is no amendment/ correction to the reported data from the previous reports.

Environmental Performance

Resources Usage - Energy

	Units	2016	2015	2014	2013	2012
Electricity consumed (QGO and APB Centre) [1]	kWh/m^2	208	217	219	218	234
CO_2 emission equivalent to electricity consumption (QGO and APB Centre) [2]	Tonnes CO_2-e	3,664	3,840	3,817	3,808	3,967
Energy saved due to energy efficient installations [3]	GWh	5.74	5.16	0.79 [5]	6.90	9.58 [4]
Equivalent monetary savings [6]	HK$ million	6.89	6.19	0.95 [5]	6.90	9.58
Avoided CO_2 emissions [3]	Kilo Tonnes CO_2-e	4.02	3.61	0.55 [5]	4.83	6.71

[1] Offices in QGO and APB Centre represent a majority of total ArchSD office space. Total ArchSD office area is assumed to be 25,194.1 m^2 (11,083.3 m^2 for APB and 14,110.8 m^2 for QGO 31/F& 33/F-41/F). The percentage of electricity consumption of the whole premises for ArchSD office at APB & QGO is assumed to be 100% and 20% respectively.

[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. ArchSD staff advises which project will be completed for the concerned year and then the energy template to be completed by the corresponding project officer. Total energy saved due to energy efficient installations can be summed up.

[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 nature of the completed projects (i.e. parks, open spaces, promenade, aqua privies, radar station, etc.) in 2014 did not warrant significant energy saving in term of BS installations.

[6] The electricity tariff is assumed to be HK$ 1.2 per kWh and HK$ 1.0 per kWh from 2014 onward and before 2014 respectively.

Resource Usage - Fuel

	Units	2016	2015	2014	2013	2012
Fuel consumption by ArchSD's pool cars	Litre	12,656	13,071	12,800	13,142	13,998
GHG emission equivalent to fuel consumption by ArchSD pool cars [7]	Tonnes CO_2-e	34.3	35.4	34.7	35.6	37.9

[7] 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	2016	2015	2014	2013	2012
A4 paper consumption	Reams	18,082	18,169	18,485	18,346	18,330
A3 paper consumption	Reams	1,169	1,171	1,118	1,053	934
Envelop consumption	No.	35,672	42,883	44,084	43,294	53,818

Waste Management in Programme Areas of Facilities Development and Upkeeping

	Units	2016	2015	2014	2013	2012
Construction & demolition materials						
C&D waste disposed of to landfills	Tonnes	36,775	46,822	37,593	24,125	46,261
C&D materials disposed of to public fill areas	Tonnes	543,054	693,029	604,238	644,728	556,560
Recyclable waste collected at APB Centre						
Waste paper	kg	15,717	15,932	19,522	19,335	19,375
Aluminium	No.	1,676	1,631	4,918	5,900	8,407
Plastic bottles	No.	3,798	3,013	2,975	3,385	3,690

Environmental Convictions of Contractors

	Units	2016	2015	2014	2013	2012
Convictions per 100,000 man-hours	ArchSD sites(HK sites)	0.122 (0.191)	0 [8] (0.25)	0.35 (0.275)	0.15 (0.618)	0.336 (0.606)
Monetary value of significant fines	HK$	100,000	0 [8]	227,000	18,500	61,000

[8] In 2015, most of the on-site projects were in the final stages of the construction, hence environmental impacts to the neighbourhood were manageable and contented.

Environmental Expenditure

	Units	2016	2015	2014	2013	2012
Resources devoted to environmental works	HK$ million	568.4	639.3	761.6	892.2	1,101.1
Percentage of annual expenditure	%	6.3	7.3	10.9	12.2	11.7

Social Performance[9]

Staff

	Units	2016	2015	2014	2013	2012
Staff establishment (As at fiscal year-end)	No.	1,814	1,814	1,810	1,795	1,792

[9] Staff data is extracted from the records kept in the personnel section.

Staff Establishment Breakdown

By Post		
Directorate	%	2
Professional	%	24
General Staff	%	21
Site Staff	%	31
Technical	%	22
By Employment Type		
Full-time	%	100
By Employment Contract		
Permanent (male)	%	64
Permanent (female)	%	30
Contract (male)	%	4
Contract (female)	%	2
By Age (31.3.2017)		
Age under 30	%	11.0
Age 30-49	%	45.4
Age 50 or above	%	43.6
By Ethnicity		
Local	%	100
Non-local	%	0
By Gender		
Male	%	68
Female	%	32

Staff Training

	Units	2016	2015	2014	2013	2012
No. of training courses (including internal and external seminars/ workshops/ training courses/ visits)	No.	366	374	287	270	240
Numbers of trainees	No.	8,302	6,961	6,619	6,674	4,902

Training Hours Breakdown [10]

Type of Staff	Total Training Hours Received (hours)	Training Hours Per Staff (hours)
Directorate Staff	1,183	31
Professional Grade Staff	16,528	36
Technical, Site Supervisory and General Grade Staff	17,600	13
Total	35,311	19.2

[10] As there is no distinct requirement regarding receiving training in terms of gender, 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 against establishment
Directorate Staff	2	5%
Professional Grade Staff	101	22%
Technical, Site Supervisory and General Grade Staff	219	16.4%

Staff Turnover

	Male	Female
Age under 30	0.5% (9)	0.2% (3)
Age 30-50	2.7% (48)	0.2% (4)
Age 51-55	0.2% (3)	0.1% (2)
Age 56-60	2.8% (50)	0.7% (12)

New Employee Hires

	Male	Female
Age under 30	1.6% (29)	0.8% (14)
Age 30-50	2.6% (47)	1.2% (22)
Age 51-55	0.1% (2)	0% (0)
Age 56-60	0.1% (2)	0% (0)

Staff Injury

	Units	2016	2015	2014	2013	2012
Staff injury cases [11]	No.	5 (Male: 4, Female: 1)	4	4	1	4
Staff sick leave granted for staff injury cases	Days	168.5	50	174	7	119.5

[11] 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.

Contractor's Accident Rate

	Units	2016	2015	2014	2013	2012
No. of fatalities [12] (ArchSD)	No.	2 (Male:2, Female:0)	0	1 (Male:1, Female:0)	0	4 (Male:4, Female:0)
Fatal accident rate [12] (ArchSD)	per 100,000 man-hours	0.007	0	0.004	0	0.013
Fatal accident rate [13] (HK Construction Industry)	per 100,000 man-hours	0.003	0.006	0.007	0.008	0.009
No. of non-fatal accidents (ArchSD)[12]	No.	70 (Male: 64, Female: 6)	98	80	68	130
Non-fatal accident rate [12] (ArchSD)	per 100,000 man-hours	0.26	0.34	0.31	0.27	0.43
Non-fatal accident rate [13] (HK Construction Industry)	per 100,000 man-hours	0.96	1.08	1.16	1.13	1.22

102-48

[12] Data of 2016 and the previous years was extracted from PWP Construction Site Safety and Environmental Statistics System (PCSES) of DEVB as at 1 September 2017.

[13] 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.

Scope and Objective

Hong Kong Quality Assurance Agency ('HKQAA') was commissioned by the Architectural Services Department (hereinafter referred to as "ArchSD") of the Government of the Hong Kong Special Administrative Region to provide independent assurance of the ArchSD Sustainability Report 2017 ('the Report') which was prepared in accordance with the Core option of the GRI Standards issued by the Global Reporting Initiative (GRI). The Report states ArchSD's major activities and achievements on sustainable development from 1st January 2016 to 31st December 2016. Besides, the financial data are reported for the financial year ended 31st March 2017.

Assurance Methodology

The assurance process was undertaken with reference to the International Standard on Assurance Engagement 3000 ('ISAE 3000') – "Assurance Engagement Other Than Audits or Reviews of Historical Financial Information". In addition, reliability of the selected sustainability information and data were verified following the process consisted of:

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

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

Base on the outcome of the verification process, HKQAA confirmed that the report was prepared based on the Core options of the GRI Standards. 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.

Signed on behalf of HKQAA

Jorine Tam
Director, Corporate Business
September 2017

This report has been prepared in accordance with the GRI Standards: Core option. The General Disclosures and Topic-specific Standards are presented below with either linkage to the reported section(s) or direct answer.

General Disclosures				
GRI Standards	**General Disclosures**		**Reference or direct answer**	**External Assurance**
GRI 102: General Disclosures 2016	**Organisational Profile**			
	102-1	Name of organisation	About Us	✓
	102-2	Activities, brands, products, and services	About Us	✓
	102-3	Location of headquarters	About Us	✓
	102-4	Location of operations	Hong Kong only	✓
	102-5	Ownership and legal form	Part of the Hong Kong SAR Government	✓
	102-6	Markets served	Strategy and Management	✓
	102-7	Scale of the organisation	About Us	✓
	102-8	Information on employees and other workers	Data Summary	✓
	102-9	Supply chain	Project Quality Management	✓
	102-10	Significant changes to the organisation and its supply chain	No significant change	✓
	102-11	Precautionary Principle or approach	Strategy and Management	✓
	102-12	External initiatives	About This Report Strategy and Management	✓

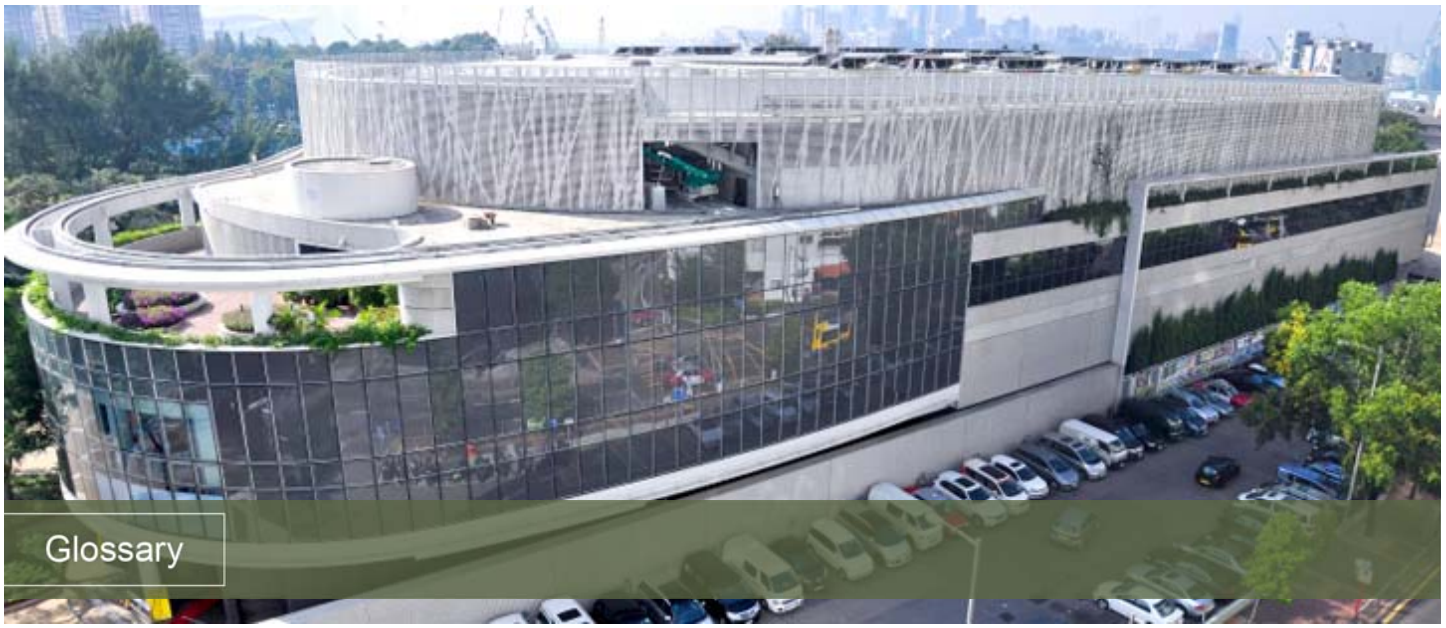
General Disclosures				
GRI Standards	**General Disclosures**		**Reference or direct answer**	**External Assurance**
	102-13	Membership of associations	Strategy and Management	✓
	Strategy			
	102-14	Statement from senior decision-maker	Message from the Director	✓
	Ethics and Integrity			
	102-16	Values, principles, standards, and norms of behaviour	Strategy and Management	✓
	Governance			
	102-18	Governance structure	About Us	✓
	Stakeholder Engagement			
	102-40	List of stakeholder groups	Main Focus Areas Engagement Approach	✓ Report Verification
	102-41	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.	✓ Report Verification
	102-42	Identifying and selecting stakeholders	Main Focus Areas	✓ Report Verification
	102-43	Approach to stakeholder engagement	Engagement Approach 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.	✓ Report Verification
	102-44	Key topics and concerns raised	Engagement Approach	✓ Report Verification
	Reporting Practice			
	102-45	Entities included in the consolidated financial statements	About Us	✓ Report Verification

General Disclosures				
GRI Standards	**General Disclosures**		**Reference or direct answer**	**External Assurance**
	102-46	Defining report content and topic Boundaries	About This Report Main Focus Areas	✓ Report Verification
	102-47	List of material topics	Main Focus Areas	✓ Report Verification
	102-48	Restatements of information	Data Summary	✓ Report Verification
	102-49	Changes in reporting	No significant change	✓ Report Verification
	102-50	Reporting period	About This Report	✓
	102-51	Date of most recent report	ArchSD Sustainability Report 2016 was published in September 2016.	✓
	102-52	Reporting cycle	About This Report	✓
	102-53	Contact point for questions regarding the report	Feedback	✓
	102-54	Claims of reporting in accordance with the GRI Standards	About This Report GRI Content Index	✓
	102-55	GRI content index	GRI Content Index	✓
	102-56	External assurance	About This Report Report Verification	✓

Topic-specific Standards				
GRI Standards	**Material Topics**		**Reference or direct answer**	**External Assurance**
	Procurement Practices			
GRI 103: Management Approach 2016	103-1 103-2 103-3		Project Quality Management	✓
GRI 204: Procurement Practices 2016	204-1	Proportion of spending on local suppliers	In 2016, all our purchases were from local suppliers (defined as companies registered in Hong Kong).	✓
	Anti-corruption			
GRI 103: Management Approach 2016	103-1 103-2 103-3		Strategy and Management	✓
GRI 205: Anti-corruption 2016	205-2	Communication and training about anti-corruption policies and procedures	Data Summary	✓
	205-3	Confirmed incidents of corruption and actions taken	Strategy and Management	✓
	Energy			
GRI 103: Management Approach 2016	103-1 103-2 103-3		Sustainable Building Design In-house Green Management Objectives and Targets	✓
GRI 302: Energy 2016	302-1	Energy consumption within the organisation	Data Summary	✓
	302-4	Reduction of energy consumption	Data Summary	✓
	Emissions			
GRI 103: Management Approach 2016	103-1 103-2 103-3		In-house Green Management Objectives and Targets	✓
GRI 305: Emissions 2016	305-1	Direct (Scope 1) GHG emissions	In-house Green Management	✓
	305-2	Energy indirect (Scope 2) GHG emissions	In-house Green Management	✓
	305-3	Other indirect (Scope 3) GHG emissions	In-house Green Management	✓
	Effluents and Waste			
GRI 103: Management Approach 2016	103-1 103-2 103-3		In-house Green Management Objectives and Targets	✓
GRI 306: Effluents and Waste 2016	306-2	Waste by type and disposal method	Data Summary	✓
	Environmental Compliance			
GRI 103: Management Approach 2016	103-1 103-2 103-3		Strategy and Management	✓
GRI 307: Environmental Compliance 2016	307-1	Non-compliance with environmental laws and regulations	Data Summary	✓

Topic-specific Standards				
GRI Standards	**Material Topics**		**Reference or direct answer**	**External Assurance**
	Supplier Environmental Assessment			
GRI 103: Management Approach 2016	103-1 103-2 103-3		Project Quality Management	✓
GRI 308: Supplier Environmental Assessment 2016	308-1	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			
GRI 103: Management Approach 2016	103-1 103-2 103-3		Staff Development Staff Engagement	✓
GRI 401: Employment 2016	401-1	New employee hires and employee turnover	Data Summary	✓
	Occupational Health and Safety			
GRI 103: Management Approach 2016	103-1 103-2 103-3		Project Quality Management Objectives and Targets	✓
GRI 403: Occupational Health and Safety 2016	403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	Data Summary	✓
	Training and Education			
GRI 103: Management Approach 2016	103-1 103-2 103-3		Staff Development	✓
GRI 404: Training and Education 2016	404-1	Average hours of training per year per employee	Data Summary	✓
	404-3	Percentage of employees receiving regular performance and career development reviews	All staff receive regular performance appraisal.	✓
	Non-discrimination			

Topic-specific Standards				
GRI Standards	**Material Topics**		**Reference or direct answer**	**External Assurance**
GRI 103: Management Approach 2016	103-1 103-2 103-3		Strategy and Management	✓
GRI 406: Non-discrimination 2016	406-1	Incidents of discrimination and corrective actions taken	No incident of discrimination was reported in 2016.	✓



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 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.
Community Green Station	A Community Green Station is operated by non-profit-making organisations to provide support for the community in the collection of low economic value recyclables such as electrical appliances, compact fluorescent lamps, fluorescent tubes, glass bottles and rechargeable batteries. With a view to promoting green living at the community level, the collected items will be delivered to qualified recyclers for proper treatment and turning waste into resources.
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.)
Earth Tube	Earth Tubes are a passive design in architecture that enable the transfer of ground source energy to heat or cool ventilation air. They are standard concrete tubes that run underground and precondition the temperature of incoming air before it enters the building, thus reducing the energy required to heat or cool the building.
Energy Audit	An Energy Audit is an examination of an energy consuming equipment/system to ensure that energy is being used efficiently. It is an effective energy management tool. By identifying and implementing the means to achieve energy efficiency and conservation, not only can energy savings be achieved, but also equipment/system services life can be extended. All these mean savings in money.
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. GRI launched its Sustainability Reporting Standards (GRI Standards) in October 2016.
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. hydroflurocarbons).
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.
ISO 50001 Energy Management System	ISO 50001 is an international standard first published by International Organization for Standardization (ISO) on 15 June 2011, which specifies requirements for the establishment of an energy management system. Adopting ISO 50001 Energy Management System enables organisations to improve their energy performance, which generally includes energy use, energy efficiency and energy consumption, in a systematic approach. Similar to other well-known ISO standards such as ISO 9001 and ISO 14001, ISO 50001 is also based on the PLAN-DO-CHECK-ACT approach to assist organisations in achieving continual improvement.
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)	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. All Government Projects are required to carry out PER at the early stage of the projects (Feasibility Study Stage).

Practice Note for Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers (PNAP)	It was formerly known as Practice Note for Authorized Persons and Registered Structural Engineers (PNAP) 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.
Program on Source Separation of Commercial and Industrial Waste	It has been launched by EPD since 2007. It aims to encourage the property management sector to undertake initiative to set up and implement suitable mechanism to separate and recover waste within commercial & industrial (C&I) premises. This will facilitate the tenants / occupants to practice waste separation and recycling in workplace with ease.
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.
Smart City	A Smart City is a city which capitalises on new technologies and developments to enhance its systems, operations and service delivery. Smart Cities share one thing in common, the application of information and communications to connect and integrate the systems and services of the city. The goal for Smart Cities is to improve city management and residents' quality of life through the efficient use of resources and service delivery whilst at the same time reducing environmental footprint.
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 1m² 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.

Sustainability Report 2017

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
Most relevant issues are covered.	○	○	○	○	○	Enter comments
Content is balanced and reliable.	○	○	○	○	○	Enter comments
Content is clear and easy to understand.	○	○	○	○	○	Enter comments
Structure and layout are rational and easy to use.	○	○	○	○	○	Enter comments

2. How would you rate the overall report?

Excellent	Good	Adequate	Marginal	Poor	Additional comments
○	○	○	○	○	Enter comments

3. In accordance with the report, how would you rate our sustainability performance?

Excellent	Good	Adequate	Marginal	Poor	Additional comments
○	○	○	○	○	Enter comments

4. What information would you like to see in future reports?

Enter comments

5. Other comments:

Enter comments

6. Which of the following best describes you?

- ☐ Client of ArchSD
- ☐ Government Department
- ☐ Consultant / Contractor / Supplier / Construction Industry
- ☐ Architect / Engineer / Landscape Architect / Surveyor
- ☐ Non-governmental Organisation
- ☐ Academic / Education Sector
- ☐ Staff of ArchSD
- ☐ General Public
- ☐ Other Enter comments

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

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Your Organisation:	
Your Telephone:	e.g. 2596 0361
Your Email address:	e.g. imu@archsd.gov.hk

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