kaitak 啟德新里程
ON THE MOVE
第九期 ISSUE 9 06 2012

低碳概念 起動九龍東

■隨着啟德發展計劃全速開展，並為鄰近地區的活化帶來催化作用，政府推出的「起動九龍東」新計劃，亦正廣受市民注目。

「起動九龍東」旨在把前機場舊址、觀塘和九龍灣一帶轉型為另一核心商業區，以支持香港的持續經濟發展和增強國際性競爭力。

特色活力辦公室

為了全速推展這項轉型計劃，並致力實現九龍東的願景，發展局特別成立了一個全新跨部門的起動九龍東辦事處（九龍東辦事處），並開設一個臨時辦公室。該臨時辦公室亦同時貫徹可持續發展的概念，應用多元綠色環保建築科技和特色，以成為香港首所低碳的臨時辦公室。

土木工程拓展署肩負了這個工程項目的規劃和整體管理工作，建築署則管理負責設計和建造的承建商，兩者合力打造一個創新的九龍東辦事處臨時辦公室。

實現起動計劃的措施和可持續發展概念

土木工程拓展署的目標是建造一所設備完善，而且合乎成本效益的環保建築物。該辦公室不但為九龍東辦事處的專業團隊提供理想的工作環境，以統籌、監督和管理九龍東轉型計劃的重要工作外，亦同時展示了一個嶄新的可持續設計概念，以低碳排放原則，為香港日後，包括建築工地辦公室的各種臨時建築物起示範作用。更重要是，該辦公室內所設的資訊站，除了展覽「起動九龍東」和「啟德發展計劃」的各項相關資訊外，更可在公眾諮詢和參與活動期間，配合完備的教育資源，成為與市民交流的理想場地。同時，亦希望透過各項展覽，展現「起動九龍東」和「啟德發展計劃」的城市設計、可持續發展和綠化環境等概念的卓越成就。

舊土地 新建設

該辦公室位於海濱道和巧明街交界，佔地3 600平方米，充分利用了觀塘繞道高架行車天橋底下一片毫不起眼的空置地段，在短時間內建成。這座綠色環保建築物除了靠近啟德發展區外，亦鄰近九龍東工業區。

土木工程拓展署負責在該處興建一座設備完善、樓高兩層的建築物，提供1 200平方米樓面面積，以容納20名員工和50名訪客。該建築物的一邊是圍繞中央庭院而建的辦公室，另一邊則設置資訊站，附設講解廳、資訊展示區、介紹計劃的模型和展板、會議室和洗手間。

獲頒最高的 BEAM Plus 暫定鉑金級別
Awarded the highest Provisional Platinum Rating under BEAM Plus

簡約建構　節能建材

該辦公室在循環再用上所付出的努力有目共睹。在採用組件建築方式方面，該辦公室利用回收再用的貨櫃及其他鋼材，使設計更靈活易變。日後，辦公室完成任務後，這些建材可輕易拆卸並在其他地點循環再用。此外，使用由再造碎石、玻璃和發電廠飛灰製造而成的鋪路磚，亦展示了其積極使用簡約建造方法和節能材料的例子。

配合周邊環境的設計不但有助減少該辦公室的能源消耗，並同時提供舒適宜人的室內環境，例如利用觀塘繞道天橋遮擋辦公室西南方外牆的日照至黃昏，以大量減少太陽熱能的吸收，令建築物保持陰涼；而設於東南方向牆身上的通風口與對面窗戶所形成的自然通風對流，則使辦公室內的空氣自然流通，更為清爽。

最高環保建築標準

獲香港綠色建築議會認可的香港建築環境評估法 (BEAM Plus)，於2010年4月推出以來，讓持份者可透過一套完善的環境評估系統，為香港樓宇的環保表現進行評估、改善、認證以及標籤工作。BEAM Plus 不但為建築業界廣泛採用，而且漸獲公眾認同，證明無論任何建築物類型或物業管理，都開始重視建築物的可持續發展新趨勢。BEAM Plus 根據建築物的整體環保表現，分為銅、銀、金以及鉑金四個級別的評級，而鉑金級別是同類認證中的最高標準。獲認證為金級別的建築物，在整體環保表現已達非常高的水準。九龍東辦事處的辦公室更以獲得最高標準的鉑金級別為目標，是香港首個獲頒暫定鉑金級別的臨時建築物。

要符合最高標準的 BEAM Plus 鉑金級別絕非輕而易舉之事。建築物需要在多方面的評估達至最高要求，例如建築物的選址、設計及建造時能否對周邊環境有正面影響；選擇建材時要考慮是否可以循環再用，以及能否物盡其用，並會否對環境構成影響；反映建築物效益的能源消耗和節約用水；室內環境質素，包括照明、恆溫、通風等都符合國際認可或更高標準；以及建築物如何充分展示其可持續發展的實踐等。整個項目從規劃、設計、建造、管理，以致使用等都需涉及多個不同專業範疇的共同合作和協調才能達致。

Highest Environmental Building Standards

Endorsed by the Hong Kong Green Building Council in April 2010, Building Environmental Assessment Method (BEAM) Plus green building rating system is a comprehensive environmental assessment scheme to assess, improve, certify and label the environmental performance of buildings. The widespread adoption and growing recognition of BEAM Plus both within the building industry and with the wider public have shown that benchmarking sustainability of buildings is becoming an increasingly important consideration in all forms of construction and property management. The BEAM Plus awards are classified as Bronze, Silver, Gold and Platinum, corresponding to the buildings' overall environmental performance, with BEAM Plus Platinum as the highest certification of its kind. Buildings awarded with a Gold rating already achieved a very good standard in overall environmental performance. The EKEO building is indeed aiming to achieve the highest Platinum rating, and has become the first temporary office building which is provisionally given this top rating in Hong Kong.

Meeting the tough criteria of BEAM Plus Platinum rating is no easy task. Buildings are assessed on a range of factors, such as the positive effects of the location, design and construction on the surroundings; the selection and efficient re-use of building materials and their environmental impacts; efficiency of the buildings in terms of energy consumption and water savings; as well as the compliance with the international or higher standards concerning indoor environment quality, including lighting, thermal comfort, ventilation, etc; and how well it showcases sustainable practices. The whole project calls for multi-discipline efforts and co-ordination in planning, design, construction, management and operation.

街道美化
Enhanced Streetscape

能源效益

在節能和大量減少相關碳排放方面，新科技發揮了重要作用，例如，辦公室內使用氣冷式可變冷媒流量系統，讓用戶可個別調校溫度，效能更可媲美先進中央空調系統；室內使用T5光管除節省電力外，亦較傳統光管更耐用。此外，於日照充足的日子，室內光線足夠時，燈光感應器會把近窗的燈光關掉，以節省能源消耗。

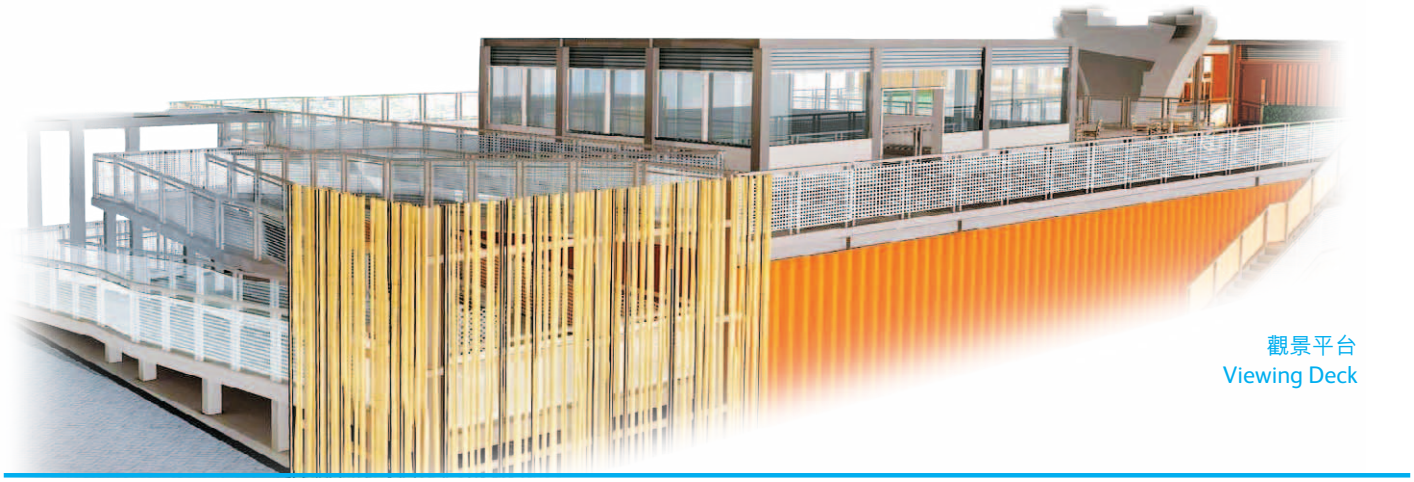
節約用水可把碳排放減至最低，理由是處理和輸送食水及污水所耗能源減少，便可減少碳排放，這是真正講求環保建築物不可或缺的一環。該辦公室利用了不同的可持續發展科技，如使用雙水量沖水坐廁和低流量水龍頭，以及傳統收集雨水作灌溉用途的方法，以減少浪費，愛惜分毫。

齊心協力為環保

推行環保措施並不因辦公室建築工程完結而畫上句號。所有九龍東辦事處的員工，都會致力堅守各項可持續發展措施，直至辦公室的任務圓滿結束。九龍東辦事處的工作團隊，均會按照運作指引和手冊，在廢物回收、採購環保產品以至如何盡用自然通風等各方面，實踐最佳的可持續發展方案，時刻確保環保措施的運作。公眾亦可透過資訊站內的展覽，或其他公眾參與活動，了解更多可持續發展的相關資訊。

該辦公室所展示的環保概念，不僅限於回收貨櫃所建的外觀。整個工程項目的其中一部分，是由土木工程拓展署進行街道美化工程，範圍包括由港鐵牛頭角站，經勵業街和海濱道至九龍東辦事處的臨時辦公室的行人通道。相關的綠化工程已於2012年4月中完成，為行人帶來更舒適的步行體驗。

儘管爭取BEAM Plus 鉑金評級的挑戰很大，該辦公室在建築署的通力合作下，僅需六個月時間便竣工，當中包括設計及建築期各三個月。落成後的建築物不但外觀吸引、具成本效益，更能貫徹環保概念。該辦公室在2012年6月7日開幕，在可持續設計應用方面，為建造業界起了示範作用，並同時提高公眾的認識和關注。□

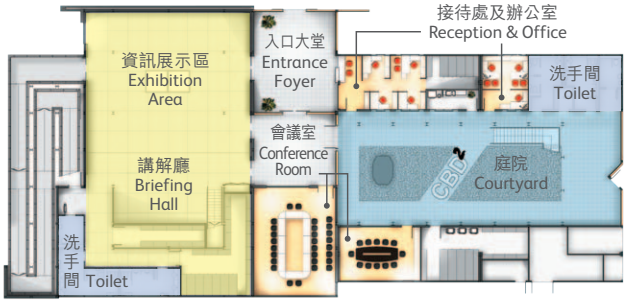


觀景平台
Viewing Deck

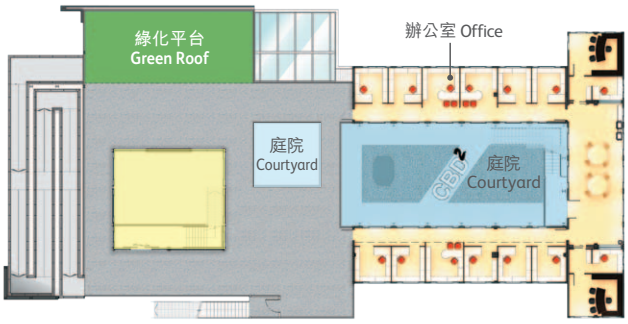
Energizing Kowloon East the Low Carbon Way

入口大堂
Entrance Foyer

辦公室中央庭院
Office Central Courtyard



地下平面圖 G/F Floor Plan



一樓平面圖 1/F Floor Plan

As the groundbreaking development at Kai Tak continues apace, acting as a catalyst for the revitalisation of surrounding neighbourhoods, the Government's new initiative for 'Energizing Kowloon East' (EKE) is starting to capture the imagination of people across Hong Kong.

This drive aims to turn an area encompassing the former airport at Kai Tak, Kwun Tong and Kowloon Bay into another Central Business District for Hong Kong's future economic growth and global competitiveness.

An Energizing Office

To add impetus to this transformational initiative, a new Energizing Kowloon East Office (EKEO) has been established under the Development Bureau. It is a multi-disciplinary team which will achieve the vision. A temporary office building for the EKEO team itself is also acting as a champion of sustainability by using a raft of integrated green building technologies and features to become Hong Kong's first low carbon temporary office.

The Civil Engineering and Development Department (CEDD), with the support of the Architectural Services Department (ArchSD) for managing the Design and Build contractors, was given the task of planning and administering the provision

走Energizing動 Kowloon East 九龍東

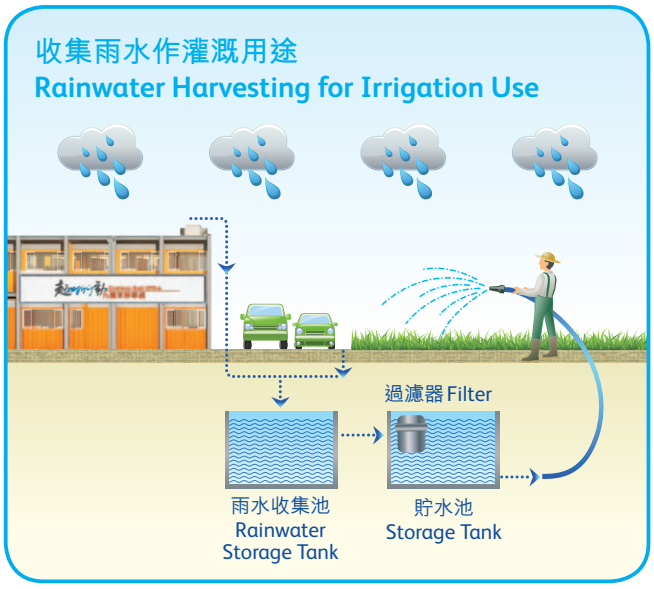
of this innovative temporary office building for the EKEO team.

Showcasing the Energizing Initiatives and Sustainability

CEDD's over-riding goal is to build a self-contained and cost effective green building, which means not only to provide an efficient workspace for the EKEO team to steer, supervise, oversee and monitor the transformation of Kowloon East, but also to showcase a new sustainable design concept with low carbon footprint. The building itself acts as a model for other future temporary buildings, including construction site offices in Hong Kong. More importantly, the Information Kiosk in the building displays EKE and Kai Tak Development (KTD) related exhibitions, and with the aid of educational resources, serves as an ideal venue for receiving the general public during public consultation and engagement activities. Moreover, the exhibitions also intend to demonstrate the achievements of EKE and KTD in terms of urban design, sustainable development, greenery provision, etc.

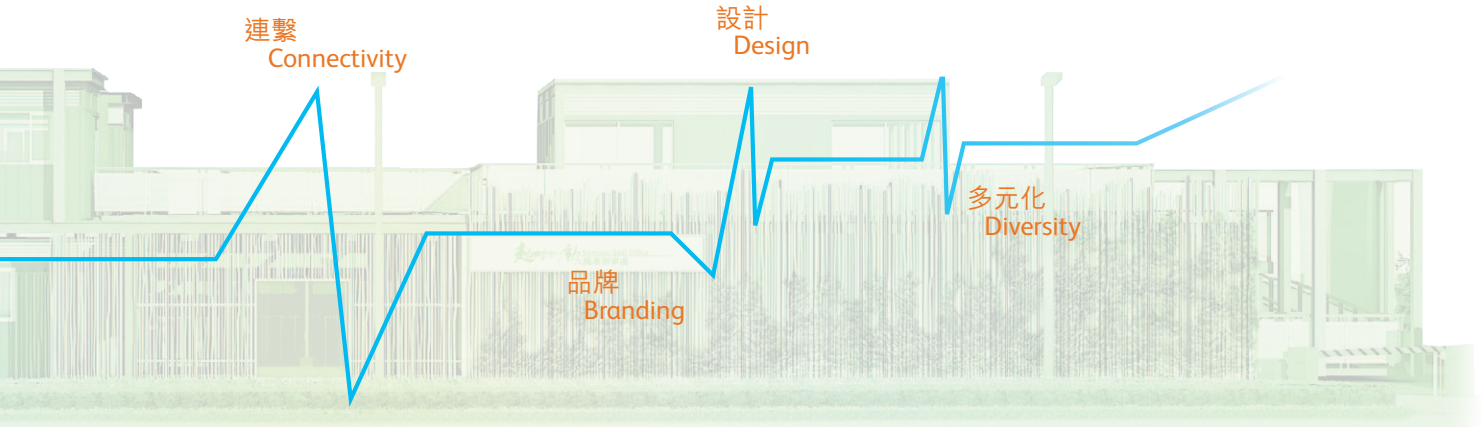
New Use for Old Land

EKEO building is a quickly established green office by revitalising a piece of unattractive land on a site under the Kwun Tong Bypass. Located near the junction of Hoi Bun Road and Hau Ming Street, the 3 600-square-metre area was ideally placed close to both the emerging KTD and the industrial areas of Kowloon East.



Here, CEDD planned to place a fully self-contained two-storey 1 200-square-metre floor area building that can accommodate 20 staff and 50 visitors. On one side of the building, there are office facilities around a central courtyard; and on the other side, there is an adjoining Information Kiosk with a briefing hall, exhibition area, interpretive set-up of models and panels, conference room and washrooms.

資訊展示區
Exhibition Area



Lean Construction Low Energy Materials

Efforts to recycle and reuse are shown. The modular construction approach using recycled freight containers, and other steel structures enables greater flexibility in layout changes. These materials can also be easily dismantled and reused elsewhere at the end of the building's life. There is plenty more evidence of the ambition to use lean construction methods and low embodied energy materials, such as paving blocks made from recycled aggregate, glass and fly ash from power plants.

Passive designs also help reduce EKEO building's energy footprint while creating a pleasant comfortable environment inside. Simple idea like using the structure of the Kwun Tong Bypass to shade the southwest façade of EKEO building until late afternoon significantly reduces solar heat gain and keeps the building cool. Perforated walls on the southeast side with corresponding windows in the opposite wall encourage natural ventilation and cooling breezes to flow through the office.

Energy Efficient

New highly efficient technologies have a role to play, delivering big savings in energy use and thus major reduction related carbon emission. The EKEO building's air-cooled variable refrigerant volume air conditioners allow users' individual control of cooling needs at an efficiency comparable to a state-of-the-art centralised unit. T5 fluorescent tubes demand less power and last longer than traditional fluorescent tubes, and daylight sensors can switch off lights near windows when it is sufficiently bright inside.

Reduction in water consumption can minimize carbon footprint as energy consumed during the treatment and transportation of fresh water and sewage can be reduced, making water conservation an important element of any truly environmentally sound building. EKEO building turns to a combination of sustainable technology, using dual flush toilets and low-flow taps, and adopts traditional wisdom of harvesting rainwater for irrigation to ensure only what is needed is used.

A Green Team Effort

Green practices do not stop at the end of the construction. Throughout the whole life cycle of EKEO building, the users will try their best to carry out practices of sustainability. Operation guidelines and manuals ensure the EKEO team always adopts the best sustainable ways of working on everything, from recycling waste and buying green products to maximising natural ventilation. The public may also get more information on sustainability through the exhibitions housed in the Information Kiosk, the example of EKEO building itself, and other public engagement activities.

The influence of EKEO building reaches well beyond its recycled freight container walls. As part of the project, CEDD is carrying out landscaping work to enhance the streetscape along the pedestrian route from MTR Ngau Tau Kok Station through Lai Yip Street and Hoi Bun Road to this site office. The greening works was completed in mid-April 2012 to enhance pedestrian experience.

Despite the challenges of meeting the BEAM Plus Platinum rating, the building of EKEO has been completed in just six months, taking three months of concerted effort with ArchSD on the design and a further three months for the construction. The result is an appealing, cost effective, very green building that should be an inspiration to both the public and the construction industry when it opens on 7 June 2012. □

環保連接系統公眾諮詢進展
Progress Updates of EFLS on Public Consultation

■啟德發展計劃由規劃至推展，一直與公眾保持廣泛互動交流，期間收集了不少寶貴意見。同樣地我們亦就環保連接系統的可行性研究結果，分兩階段進行公眾諮詢。

第一階段公眾諮詢於2012年2月展開，至今已諮詢了觀塘區議會、九龍城區議會轄下房屋及基建委員會、黃大仙區議會、本地船隻諮詢委員會、海濱事務委員會轄下啟德海濱發展專責小組、香港運輸物流學會運輸政策委員會，以及立法會發展事務委員會。此外，我們亦於2012年5月26日及6月2日舉行了兩場公眾參與工作坊，進一步蒐集公眾意見。

我們會把第一階段公眾諮詢所蒐集到的公眾意見，作進一步分析，並計劃於2012年年底展開的第二階段公眾諮詢，匯報有關結果，希望就項目的發展方向，達成社會共識。

最新消息

我們已於2012年4月推出環保連接系統網頁 www.ktd.gov.hk/efls，發放相關訊息，讓市民了解項目研究詳情及公眾諮詢進展。□

■The planning and implementation of KTD has benefited from extensive and interactive public engagement and therefore the Environmentally Friendly Linkage System (EFLS) should be no exception. We are now conducting a two-stage public consultation to solicit public views on EFLS, in light of the findings of a feasibility study.

Since the commencement of the Stage 1 public consultation in February 2012, we have consulted Kwun Tong District Council (DC), Housing and Infrastructure Committee of Kowloon City DC, Wong Tai Sin DC, the Local Vessels Advisory Committee, the Task Force on Kai Tak Harbourfront Development of the Harbourfront Commission, the Transport Policy Committee of the Chartered Institute of Logistics and Transport, and the Panel on Development of the Legislative Council. Two public engagement workshops were held on 26 May and 2 June 2012 to gauge more extensive public views.

Views collected at the Stage 1 public consultation will be analyzed and further discussed at the Stage 2 public consultation, which will be conducted in end 2012, with a view to arriving at a consensus reflecting the majority of public views on the way forward for EFLS.

Latest Information and Update

An EFLS webpage, www.ktd.gov.hk/efls, was launched in April 2012 to release information about the EFLS feasibility study and the latest updates on the public consultation events. □

在提高建築物的環保表現方面， 九龍東辦事處的辦公室有哪些主要成效?

九龍東辦事處的辦公室已取得最高的BEAM Plus暫定鉑金級別， 充分顯示其對環境的種種效益：

節省能源
- 年均能源消耗減少約33％， 相等於每年48 500千瓦小時
- 高峰電力需求減少約37％

節約用水
- 收集雨水用作灌溉用途， 可減少用水約57％， 相等於每年805 000公升
- 使用低流量小便盤及雙水量沖水坐廁，減少沖水用水量約22％， 相等於每年51 600公升

減少廢物
- 可循環再造或再用建築廢物約69％， 相等於10 500公斤
- 預製建築組件使用量約50％

What are the key achievements of the building of EKEO that enhance the building performance due to the building's features?

Having attained the highest provisional BEAM Plus Platinum rating, the building of EKEO demonstrates various environmental benefits -

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

Water Conservation
- About 57 % or 805 000L per year reduction in fresh water consumption by harvesting rainwater for irrigation
- About 22 % or 51 600L per year reduction in flushing water demand by using low flow urinal and dual flush toilets

Waste Reduction
- About 69 % or 10 500kg of construction waste will be recycled or reused
- About 50 % of building materials are prefabricated

有問必答 Frequently Asked Questions

下一步...

就環保連接系統的公眾諮詢，我們已舉行了兩場公眾參與工作坊，並將綜合收集所得的意見，於2012年年底作第二階段的公眾諮詢。我們歡迎您的繼續參與。

What's next...

With the completion of the two public engagement workshops on EFLS, views and comments will be summarized for discussion in the Stage 2 public consultation to be held in end 2012. We welcome your continuous participation.

下期精彩內容

我們將介紹有關啟德發展計劃內的設計比賽。

Look out for the next issue

We will introduce the design competitions for KTD.

我們歡迎您提供寶貴的意見，令《啟德新里程》的內容更豐富、更吸引。請將意見電郵至 ktd@cedd.gov.hk 。

We appreciate hearing your valuable comments to enhance the contents of this publication. Please email them to ktd@cedd.gov.hk.

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