

環保連接系統 全力起動九龍東

■曾大大推動了香港現代工業發展的九龍東包括前機場舊址、觀塘和九龍灣。隨着政府推出「起動九龍東」計劃，它將再度成為香港一個全新的經濟動力中心。

起動九龍東

這願景以啟德發展計劃為主軸，致力把整個九龍東轉型為香港另一個核心商業區，提供充裕的辦公室樓面面積，以實現國家「十二五」規劃其中一個主要目標——支持香港作為國際金融、貿易和航運中心的地位，以及發展為離岸人民幣業務中心和國際資產管理中心。

「起動九龍東」的重點涵蓋四大概念總綱計劃：「塑造嶄新品牌」——為即將面世的嶄

新優質商業區創造知名度；「多元化」的活動場地——包括露天食肆、活力洋溢的海濱、水上活動、休閒娛樂設施；「優良設計」——融合綠色生活和締造環境宜人的公共休憩空間；「加強連繫」九龍東區內外各地——以環保連接系統全面貫通整個地區。

嶄新綠色連繫

嶄新的環保連接系統是「起動九龍東」計劃內矚目的項目之一。這個綠色運輸系統會貫通整個啟德發展區，以至觀塘和九龍灣，把新舊

區融合，並與主要的運輸基建連接起來，包括現有港鐵觀塘線及已規劃的沙田至中環線（沙中線），使市民往來各地更暢達便捷。

就啟德發展計劃過往的廣泛公眾參與活動的意見所得，市民均一直期望興建一條環保連接系統。為此，在2007年由行政長官會同行政會議通過的《啟德分區計劃大綱圖》內已預留用地，興建以鐵路為主的環保連接系統。2009年年底，土木工程拓展署委聘顧問，就環保連接系統走線方案、對交通和環境

的影響、土地需求、營運可行性、財務表現和經濟回報，以及其他路面環保交通工具的選擇，進行初步的可行性研究。研究結果顯示單軌列車系統是首選的長遠方案。

市民對環保連接系統的高度期望

擬議興建的高架鐵路環保連接系統全長約9公里，共12個站，將途經啟德發展區所有主要的旅遊熱點，為香港締造獨一無二的新地標，增添旅遊的吸引力。走線兩端將分別連接港鐵九龍灣站和觀塘站，並途經日後可與沙中線交匯的啟德車站廣場，方便乘客轉車。

露天食肆
Al fresco dining



多元化活力海濱
Vibrant waterfront



環保連接系統

有關方面在選擇採用高架單軌列車的過程中，亦曾探討其他類型的鐵路系統。其中另一主要選擇是雙車卡配備橡膠輪胎的行人捷運系統，其應付急灣位置所需的活動半徑較小，較有利於行駛啟德鄰近狹窄的腹地區域，而且可輕易配合共用路軌；不過，該系統須要建造體積龐大的板式高架橋來裝置導軌，對景觀影響較大。

另一方面，同樣為雙車卡的單軌鐵路則只須裝置主樑式高架導軌，外形美觀而富現代感；而且建議的每個方向單線行車，可避免共用軌道，減低操控方面的顧慮，令單軌鐵路更勝一籌。

成本龐大

最終決定是否採用環保連接系統的另一重要因素，則須衡量其成本與效益。按2010年的價格計算，整個系統

的建設費用估計約為120億港元，包括興建基礎設施、車站、鐵路機電工程、列車、車廠和觀塘連接橋。預期收益將不足以支付建設成本、日常營運及維修保養的費用。

效益顯著

環保連接系統帶來的經濟效益難以一一量化，因其不但是快捷的運輸系統，將啟德發展區、九龍灣與觀塘各區連繫起來，更是「起動九龍東」不可或缺的一環。環保連接系統將產生催化作用，為毗鄰的舊區注入活力，鼓勵私人發展及重建；加強九龍東的區內與區外的緊密連接，孕育該區成為一個全新的核心商業區。

環保連接系統如實施得宜，定必成為香港另一個精彩旅遊景點，吸引大量遊客到訪，使區內的各行各業受惠。環保連接系統象徵高瞻遠矚的

願景，推動該區與時並進。此外，該系統貫徹啟德發展計劃的綠色理念，建設一個路面零排放、比柴油巴士消耗更少能源的運輸系統，將有助保護環境和改善空氣質素。

路面環保公共交通

環保連接系統的動工興建，需配合啟德發展區內的多項基建項目，包括沙中線啟德站和沿前跑道的園景平台的發展。預計環保連接系統會在2023年啟用。不過，隨着居民陸續遷入啟德發展區，並對交通需求增加，我們需要在2013年起為居民提供另一替代的路面環保公共交通工具。初期可先採用現時已在香港路面行駛的最新型環保交通工具，包括超低硫柴油巴士（歐盟五期排放標準）和液化石油氣小巴，其後或會考慮採用其他獲批准的新交通工具。

雖然電池電動巴士、超級電容巴士及混合動力巴士在香港尚待確定可行，政府已計劃資助專營巴士公司購置此等巴士進行測試，以確定是否適合在本地道路使用。因此，啟德所採用的路面環保交通工具，須視乎實地測試的結果而定。日後，環保鐵路連接系統投入服務後，路面的運輸服務會作適當調整，為市民提供另一交通選擇。

路面環保公共交通工具的優點，在於建設成本和營運費用較低，且可靈活規劃路線，惟會對繁忙的道路網絡添加壓力。此外，從載客量、旅遊吸引力、提供既安全可靠又便利的區內連繫、與其他發展項目的協同效應，以至提升九龍東核心商業區的形象等方面，成效卻難與環保鐵路連接系統相比。我們會就採用環保鐵路連接系統或路面環保交通工具作為長遠安排，積極聽取公眾意見。□



開源道 Hoi Yuen Road

取道開源道或敬業街

環保連接系統進入觀塘後，須要在鐵路走線上選擇沿開源道或敬業街行走。開源道方案優勝之處在於較接近港鐵觀塘站，更為直接方便；不過，為容納環保連接系統，需把開源道現時三條行車線的其中一條封閉，搬移一些現有巴士路線；並須拆卸一些現有的簷篷，以符合消防要求。

至於取道敬業街的方案方面，環保連接系統則會沿觀塘明渠旁行走。該處空間較為寬敞，除了對交通造成較少影響外，對景觀的阻隔亦較輕微，但前往港鐵觀塘站的步行距離則較開源道方案增加約250米。



敬業街 King Yip Street

Choice between Hoi Yuen Road or King Yip Street

When EFLS lands in Kwun Tong, a choice needs to be made between two alternative routes following either Hoi Yuen Road or King Yip Street. The Hoi Yuen Road option has the advantage of finishing closer to the MTR Kwun Tong Station and thus providing a more direct and convenient link. However, to accommodate EFLS, one traffic lane of the 3-lane carriageway of Hoi Yuen Road would need to be closed and some existing bus routes would be diverted to other roads. Some existing canopies would also need to be demolished to meet fire-fighting requirement.

Choosing King Yip Street would mean running EFLS along the edge of the Kwun Tong Nullah, where there is more space and little impact on traffic. This option, with less visual impact, increase the walking distance to the MTR Kwun Tong Station by approximately 250m, though.

Environmentally Friendly Linkage System Set to Energize Kowloon East



Having been a driving force of Hong Kong’s modern industrial development, Kowloon East – an area encompassing the former airport, Kwun Tong and Kowloon Bay – is once again emerging as a new economic powerhouse with the launch of the government’s ‘Energizing Kowloon East’ initiative.

Energizing Kowloon East

This vision, with the Kai Tak Development (KTD) at its heart, sees the whole area of Kowloon East evolving into an alternative Central Business District (CBD). The new CBD will provide much needed office space

to support Hong Kong’s position as an international financial, trade and shipping centre and Hong Kong’s development into an offshore Renminbi business centre and international asset management centre – one of the key goals of the National 12th Five-Year Plan.

In energizing Kowloon East, the focus will fall on four important development concepts: ‘Branding’ to create awareness that a new premier office district is emerging; ‘Diversity’ to feature a multi-faceted area with al fresco dining, a vibrant waterfront,

water-based activities, entertainment and more; ‘Design’ to embrace green living and enticing public open spaces; and ‘Connectivity’ both within and beyond Kowloon East into the territory to fully integrate the whole area through an Environmentally Friendly Linkage System (EFLS).

An Inspiring Green Connection

One of the most exciting elements of the plan is the new EFLS, a green transport system, that will run all the way through KTD and deep into Kwun Tong and Kowloon Bay, connecting

new and old districts, opening up access, and linking with major transport infrastructure, including the current Mass Transit Railway (MTR) Kwun Tong Line and the planned Shatin to Central Link (SCL) for easy interchanges.

The proposed EFLS has long been seen as an important element in KTD, fulfilling public aspirations gauged from extensive public engagement exercises that formulated the land use plan. A land reserve was made in the Kai Tak Outline Zoning Plan approved by the Chief Executive in Council in 2007 for the

possible provision of a rail-based EFLS. A project feasibility study on EFLS was commissioned by the Civil Engineering and Development Department in late 2009, which studied the preliminary engineering feasibility of network alignments, analysed the impacts on traffic and environment, the land requirement, operational viability, the financial implications and potential returns, and other green road-based options. A monorail system emerged as the preferred long term solution.

Elevated Expectations for EFLS

The proposed elevated rail-based EFLS will run for about 9km in a single line with 12 stations. The route will pass through all the major tourism hotspots in KTD to create a unique landmark in Hong Kong with high tourism appeal. Each end of the route will link with the existing MTR stations at Kowloon Bay and Kwun Tong respectively, with an intermediate station situated at the Kai

Tak Station Square, where passengers can interchange with the planned SCL.

EFLS System

In the process of choosing an elevated monorail system, other types of rail systems were explored. The main contender was a two-car rubber-tired Automatic People Mover (APM) that was more flexible with a smaller turning radius and thus can manoeuvre more easily in the congested hinterland around Kai Tak, and, importantly, can also easily accommodate track sharing. On the downside, this system requires a bulky visually-intrusive slab structure to mount the guideway.

The monorail, on the other hand, with two-car trains as well, can be mounted on a much sleeker raised beam-girder guideway that looks modern and appealing. In addition, with a single line in each direction proposed, the issues of track

sharing and manoeuvrability are eliminated, making the monorail a better option.

Significant Cost

Another vital factor in the ultimate adoption of EFLS is the cost versus the benefits that the system will deliver. In 2010 prices, the capital cost of the system as a whole, incorporating infrastructure, stations, electrical and mechanical works for the railway, the trains, the depot and K TTL, is estimated at HK\$12billion. Anticipated revenues are unlikely to meet the capital cost as well as the regular operating and maintenance expenses.

Substantial Benefits

It is not easy to quantify all the economic returns from EFLS since it is more than an efficient transport system connecting KTD, Kowloon Bay and Kwun Tong. It is a vital component in “Energizing Kowloon

East”. This catalytic effect will inject vibrancy into the old neighbouring districts, encourage private development and redevelopment, and enhance connectivity within and beyond Kowloon East that must be in place for new CBD to grow.

With proper implementation, EFLS will become another significant tourist attraction of Hong Kong, pulling in large numbers of visitors, which will help support diverse local businesses. It will also be a potent symbol of the forward-thinking vision and drive for modernity in the district. Furthermore, in keeping with the green character of KTD, a transport system with no roadside emissions and much less energy consumption than diesel buses will protect the environment and improve air quality.



Road-based Green Public Transport

Several infrastructure projects within KTD, for example, SCL Kai Tak Station and the landscaped deck along the former runway, need to be completed before handing over the sites for the construction of EFLS. It is tentatively envisaged that EFLS will be commissioned before 2023. In the meantime, an alternative road-based system with the best possible green credentials needs to be introduced from 2013, when the population and demand for transport in KTD will start to grow. This system will probably rely on the latest green transport vehicles already in use in Hong Kong, including ultra-low-sulphur diesel buses (Euro V Standard) and liquefied petroleum gas mini-buses as a start and, with other approved forms of new technology in a latter stage.

對觀塘避風塘的影響

在整個綠色運輸網絡中，觀塘連接橋是其中景致最為優美和具特色的一段。該橋由前跑道南端橫跨觀塘避風塘，把啟德與觀塘連成一體，將可同時容納環保連接系統和行人天橋，但由於建議橋樑的淨空高度約為21米，將對現時一些使用避風塘的高桅杆吊臂躉船的進出構成限制，因此我們需要和受影響的業界團體進一步磋商，在觀塘連接橋工程推展前，為需要進入避風塘的船隻確定替代安排。

如要繼續觀塘避風塘現時的運作，讓所有船隻出入暢通無阻，觀塘連接橋的高度則需升高至40至50米，以及興建一段長迴旋引橋。這項工程會佔用「起動九龍東」計劃下的一個主要重建用地，因而限制了該區的發展潛力。引橋的龐大結構不但影響景觀、不方便行人使用，更對單軌鐵路的運作構成技術上的限制。

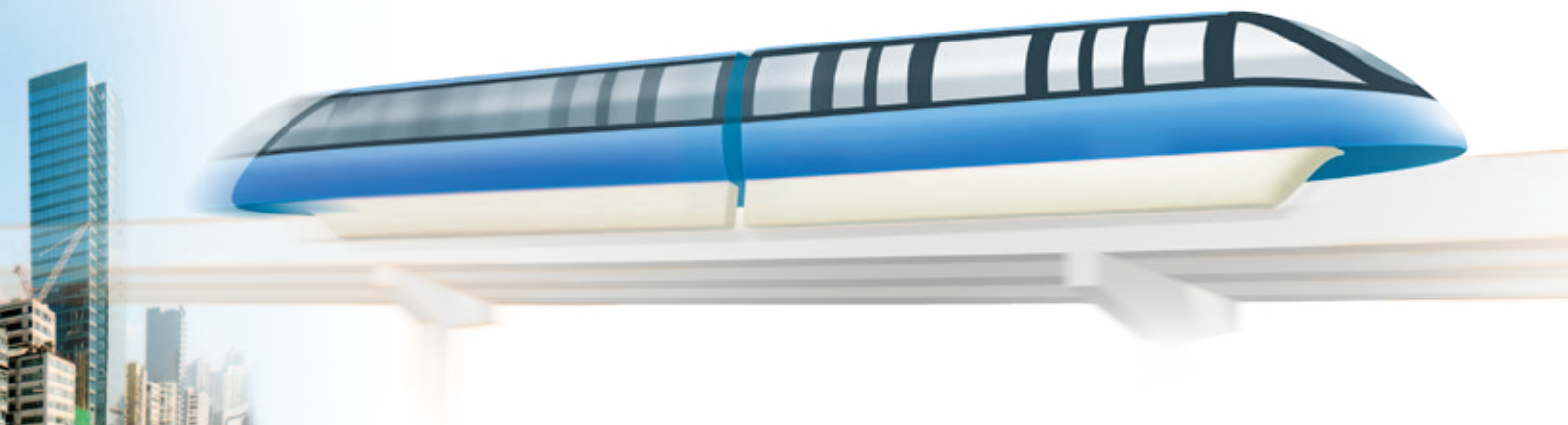
Impact on Kwun Tong Typhoon Shelter

One of the more scenic and ambitious sections of this green transport network will be the EFLS cum pedestrian bridge, known as Kwun Tong Transportation Link (KTTL), running from the tip of the former runway across the Kwun Tong Typhoon Shelter. This bridge, with a vertical clearance of about 21m from the sea surface, will provide a more direct connection between Kai Tak and Kwun Tong. However, its height limit means there will be access restrictions for some of the high-mast vessels currently using the typhoon shelter. Therefore, further consultation with the affected working vessel community will be conducted to identify alternative arrangements for sheltering vessels before taking forward K TTL.



觀塘連接橋 Kwun Tong Transportation Link

It should be noted that to continue providing barrier free passage to the Kwun Tong Typhoon Shelter, K TTL would have to be elevated about 40 to 50m with a long swirl approach ramp. This would encroach on a potential major redevelopment site under the 'Energizing Kowloon East' initiative and thus limit its redevelopment potential. This huge structure would not only be visually intrusive and pedestrian unfriendly, but would also impose technical constraints on the monorail operation.





Though battery-electric, super capacitor and hybrid buses are yet to be proven in Hong Kong, the government has planned to subsidize the franchised bus companies to purchase these new types of bus to test their suitability for use on local roads. The choice for Kai Tak will depend on the success of these trial runs. Once the rail-based EFLS comes into operation, the road-based services will be rationalized to provide reasonable alternatives for the public.

Road-based green vehicles do offer the advantages of lower capital cost, running costs and higher flexibility for route planning, but add pressure to the road network already with busy traffic. They are also inferior to the rail-based EFLS in terms of carrying capacity, tourism appeal, convenience, reliability, safe intra-district connectivity, synergies with other developments and the ability to enhance the visionary image of Kowloon East CBD. We will seek for public's views on whether a road-based green transport mode should be adopted in place of EFLS in the long term. □

EFLS連接各主要旅遊景點

EFLS connecting all major tourism spots



公眾諮詢

就各項建議的公共運輸方案，我們需細心聽取市民的不同意見。公眾諮詢活動會分兩階段舉行，希望就環保連接系統的發展方向取得共識。2012年第一季至第三季舉行的第一階段諮詢活動，除了舉行公眾參與工作坊外，亦會諮詢有關的區議會、啟德海濱發展專責小組、立法會發展事務委員會、本地船舶協會及關注團體。我們會就收集所得的意見作進一步分析，並計劃在2012年年底展開第二階段公眾諮詢匯報有關結果，從而尋求達成社會共識。

歡迎您的意見

我們重視您的寶貴意見和見解。我們計劃在2012年4月推出的環保連接系統網頁，將有更多有關環保連接系統的資料、詳細的公眾諮詢時間表及調查問卷。該環保連接系統網頁將透過我們的網頁 www.ktd.gov.hk 連接，請密切留意。

Consulting the Public

Of course, now that the various transport options have been proposed, it is time to get more views from the people of Hong Kong. A two-stage public consultation is planned to reach a consensus reflecting the majority of public views on the way forward for EFLS. The first stage, running from the first to the third quarter of 2012, will consist of public engagement workshops and consultations with relevant District Councils, the Task Force on Kai Tak Harbourfront Development, the Panel on Development of the Legislative Council, local vessel associations and concern groups. The second stage planned to be held at the end of 2012 will analyse the views collected from the first stage and seek to build a consensus.

Have Your Say

We treasure all your valuable views and opinions. More information about EFLS, detailed public consultation event schedule and questionnaires for collecting public views will be available soon in the upcoming EFLS webpage, tentatively in April 2012 which is linked through our website, www.ktd.gov.hk. Please visit and check the details later.

區議員參觀啟德

■ 啟德辦事處經常積極主動與鄰近居民保持連繫，分享啟德的最新進展。為此，隨着近期區議會選舉完滿結束，本處誠邀了九龍城、黃大仙和觀塘各新一屆的區議會議員參觀啟德，向他們介紹這個矚目的大型發展項目，聽取簡報和視察各項工程的最新進展。□



九龍城區議會議員參觀啟德
Members of Kowloon City District Council visiting Kai Tak

District Council Members Pay Their Visit to Kai Tak

■ The Kai Tak Office is always keen to keep local people informed about the progress of KTD. In this connection, with the conclusion of the recent district council election, members from three District Councils – Kowloon City, Wong Tai Sin and Kwun Tong were invited to site visits to KTD. It was a valuable opportunity to introduce some of the newly elected members to this impressive mega-development project for the first time. □



黃大仙區議會議員
參觀啟德
Members of Wong
Tai Sin District
Council visiting
Kai Tak



觀塘區議會議員參觀啟德
Members of Kwun Tong
District Council visiting Kai Tak

近期活動 Recent Activities



前任啟德辦事處專員接受美國的CNN國際新聞網絡訪問
CNN International interviewed the ex-Head of Kai Tak Office

Kai Tak in the News

■ As the development starts to take shape, Kai Tak becomes a focus of the globe. Recently a team from CNN International filmed KTD as an episode of their monthly series – “Future Cities” of February 2012. This series gives viewers an inside look on how cities adapt to tomorrow’s urban challenges. In the programme, ex-Head of Kai Tak Office was interviewed by Richard Quest, one of the most recognized and respected anchors of CNN.

啟德熱話

■ 隨着各項工程的如期進行，啟德發展計劃已廣受注目。最近，美國的CNN國際新聞網絡(CNN)派遣隊伍拍攝啟德發展計劃，作為其2012年2月份《未來城市》系列特輯之一。該節目為觀眾深入探討世界各地的大都會如何面對未來的城市挑戰。在節目中，前任啟德辦事處專員接受CNN最知名且備受尊敬主播之一的Richard Quest訪問，暢談啟德發展計劃。

此外，新任啟德辦事處專員亦接受有線寬頻的訪問，談論啟德發展計劃的最新進展、未來發展路向，以及其在「起動九龍東」所肩負的重要使命。□

New Head of Kai Tak Office also took part in an interview with i-CABLE to talk about the latest progress and the future development at KTD, as well as the important role that it has to play in the “Energizing Kowloon East” initiative. □

新任啟德辦事處專員接受有線寬頻訪問
Interview of new Head of Kai Tak Office by i-CABLE



有說環保連接系統會對活化九龍東起催化作用。是否有其他海外例子也利用環保連接系統活化舊區？

東京台場海濱區，也稱為「彩虹城」，就是一個活生生的例子。在九十年代，該地區曾經是一個枯燥乏味的舊城區，但現在已經成功蛻變為嶄新的購物和消閒區，展現獨特的城市面貌和姿采，吸引大量遊客和本地訪客。這個項目成功關鍵在於「海鷗」線鐵路連接系統，提供方便舒適的交通工具，把東京市中心與台場連繫，締造煥然一新的現代城市。

It is mentioned that EFLS will have catalytic effect on revitalizing Kowloon East. Are there any other overseas examples that use EFLS to revitalize old areas?

The Odaiba Waterfront City, also called "Rainbow Town" in Tokyo, is a good example. The area was once an old city in 1990s. It has been successfully transformed into a new shopping and entertainment district with distinct city image and identity, attracting lots of tourists and local visitors. The success of this project, in particular, is due to the Yurikamome, a rail-based EFLS that facilitates convenient and comfortable access to the area from downtown Tokyo stimulating the transformation of the city.

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擬議單軌列車的班次和平均時速是多少？每一列車可載多少名乘客？全程需時多久？

擬議單軌列車是一個全自動無人駕駛系統，可每兩分鐘開出一班車，每列列車設有兩卡車廂，總載容量約250人，若以每小時40公里的平均速度行駛，全程需時約20分鐘。

What will be the train frequency of the proposed monorail and its average speed? What is the passenger capacity for each train? How long will it take for a ride of the whole journey?

The proposed monorail is a fully automated driverless system, which could operate with a 2-minute headway. The monorail, in the form of 2-car train has a capacity of about 250 passengers. Travelling at an average speed of about 40km/hr, a ride of the whole journey would take about 20 minutes.

下一步...

我們已於2012年第一季，就北停機坪第二期和第三期基礎設施工程，以及啟德明渠改善工程諮詢相關的區議會。

What's next...

Consultations with relevant District Councils on the stages 3 and 4 infrastructure works in North Apron, and the Kai Tak Nullah modification works have commenced in the first quarter of 2012.

下期精彩內容

我們會介紹獲綠建環評白金級別的九龍東發展辦事處的臨時辦公室。

Look out for the next issue

We will talk about the temporary office of the Kowloon East Development Office which is a temporary structure attaining BEAM PLUS Platinum grade.

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.

有問必答

Frequently Asked Questions

