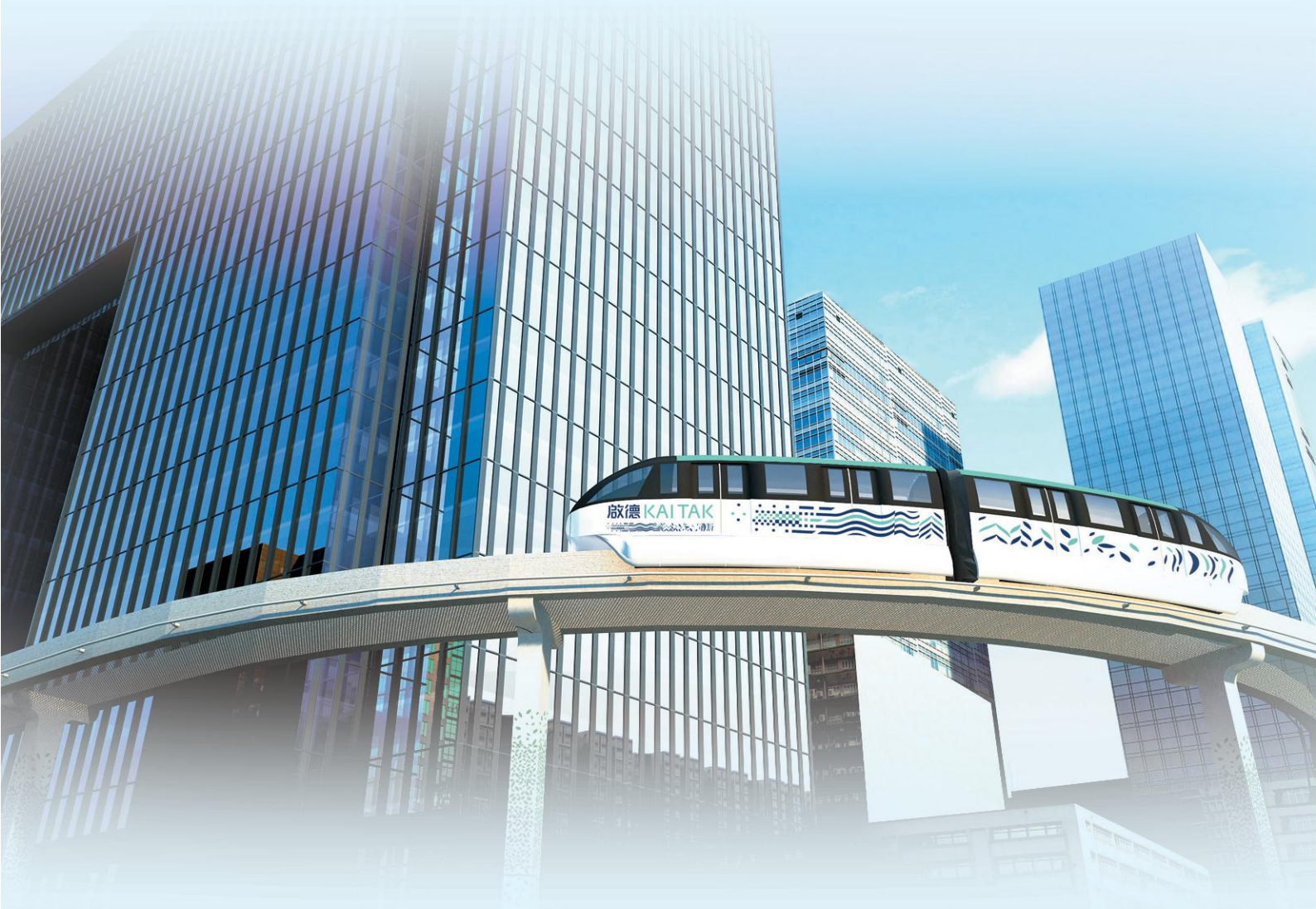
Stage 2 Public Consultation Report

connecting
連繫九龍東Kowloon East



環保連接系統
Environmentally Friendly Linkage System

CEDD 土木工程拓展署
Civil Engineering and Development Department

AECOM

Connecting Kowloon East – Environmentally Friendly Linkage System

Stage 2 Public Consultation Report

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APPENDICES

1 INTRODUCTION

1.1 Background

1.1.1 In the extensive public engagement exercise carried out in 2004-2006 for the Kai Tak Development (KTD), it was identified that provision of a rail-based environmentally friendly transit system in KTD was a strong public aspiration. This issue may have implications on not only the traffic and transportation planning within the development, but also land use planning, urban and landscape design. The public also believed that the system would benefit the revitalization of old districts adjoining KTD, the environment and tourism appeal.

1.1.2 In response to the public aspiration, the Kai Tak Outline Zoning Plan (OZP) No. S/K22/2 approved in 2007 subsequently designated a reserve for possible provision of a rail-based Environmentally Friendly Transport System (EFTS) in future, which requires further investigation and feasibility study. This alignment reserve passes through KTD area connecting various new developments, including Kwun Tong Waterfront, the Cruise Terminal cum Tourism Node, Runway Precinct, Metro Park, Sport Hub and Station Square. The EFTS is also considered as an icon enhancing the overall appeal of KTD.

1.2 The Preliminary Feasibility Study

1.2.1 In December 2009, Civil Engineering and Development Department (CEDD) appointed AECOM Asia Co. Ltd. under Assignment No. CE 42/2009 (TT) to carry out a preliminary feasibility study (PFS) on the Kai Tak Environmentally Friendly Transport System (the Study). During the course of Study, the EFTS was renamed to Environmentally Friendly Linkage System (EFLS) to demonstrate the system's important role in linking KTD with the neighbourhood. The scope of the study included exploring the extension of the EFLS into the adjoining old districts. Having considered the important role to be played by the EFLS in "Energizing Kowloon East", i.e. to enhance inter-district and intra-district connectivity of Kowloon East (KE), the Study has come up with a preferable EFLS proposal to effectively cope with the development strategies for transforming KE into an alternative Central Business District (CBD).

1.2.2 The Study suggests adopting an elevated monorail system as the EFLS with a 9-kilometre 12-station line linking the Mass Transit Railway (MTR) Kowloon Bay Station, through Wang Kwong Road to the KTD Station Square, where it can interchange with the Kai Tak Station of the future Shatin to Central Link (SCL), and then all the way along the former runway before crossing the Kwun Tong Typhoon Shelter (KTTS) at the tip of the runway via the Kwun Tong Transportation Link (KTTL) and terminating at the MTR Kwun Tong Station.

1.3 Overview of the Two-stage Public Consultation

1.3.1 We have conducted a two-stage public consultation (PC) on the proposed EFLS. The Stage 1 PC, which took place from February to October 2012, successfully aroused public awareness of the study findings of the proposed EFLS and gauged their views on the proposal. The consultation events included a series of meetings with statutory and advisory bodies, professional institutions, transport operators and interested groups, as well as two public engagement workshops.

1.3.2 The Stage 1 PC concluded a genuine need to enhance the connectivity of KE for the development of a CBD. However, there were diversified views on the proposed elevated monorail system with major public concerns largely categorized into three key issues: (i) need for an elevated rail-based EFLS, (ii) alignment and coverage, and (iii) implications for the KTTS. A more detailed record on the public views and suggestions received was provided in the Stage 1 PC Report, which could be downloaded from the dedicated website on EFLS (http://www.ktd.gov.hk/efls). The same website also sets out our responses to the above three key issues.

1.3.3 The Stage 2 PC, which took place from 28 October 2013 to 4 February 2014, responded to public views and suggestions received in the first stage, and sought views and suggestions on a proposed detailed feasibility study (DFS) to address the various concerns before committing to project implementation. The stakeholders consulted were mainly those engaged in the Stage 1 PC.

1.4 Purpose of this Report

1.4.1 This report documents the Stage 2 PC activities and the public views/suggestions received, provides responses to the collated public views/suggestions, and recommends the next step taking account of the outcome of the two-stage PC.

2 STAGE 2 PUBLIC CONSULTATION ACTIVITIES

2.1 Dissemination of Information about the Stage 2 PC

2.1.1 To promote public awareness as well as encourage public participation in the Stage 2 PC, various means were deployed in disseminating the information about the Stage 2 PC as described in the ensuing paragraphs:

Stage 2 Public Consultation Digest

2.1.2 A booklet entitled "Stage 2 Public Consultation Digest" was produced to provide an overview of Stage 1 PC exercise, set out our responses to the three key issues identified in Stage 1 PC, propose a DFS as the next move for the EFLS, and suggest various aspects for an in-depth further study in the DFS to invite public comments. Copies of the Digest were widely distributed at public forum, consultation forums, consultation meetings and briefings. The Digest was also disseminated to the public at Kwun Tong, Wong Tai Sin and Kowloon City District Offices.

Media Briefing

2.1.3 A media briefing was held on 28 October 2013 to kick off the Stage 2 PC, which was attended by about 15 media organisations. In the briefing, the participated journalists were enthusiastic in raising questions, and provided extensive and positive reports in the same evening and the next day which enhanced public understanding on the PC exercise.

Website

2.1.4 A reconstructed EFLS website was launched on 28 October 2013. Information about study overviews, Stage 1 PC outcome and Stage 2 PC exercise were put up on the website. Latest information and progress of the Stage 2 PC events were disseminated through updates of the website from time to time.

Publicity

2.1.5 The Stage 1 PC outcome together with our responses were published in Kai Tak Newsletter in December 2013. The Stage 2 PC exercise was announced at the same time and members of the public were invited to participate in the consultation exercise.

2.1.6 An article on the Stage 2 PC of EFLS was uploaded on SDEV's blog on 3 November 2013.

2.1.7 To raise the public awareness of the public forum, posters were put up on notice boards at Kwun Tong, Wong Tai Sin and Kowloon City District Councils, advertisements were posted in newspapers, and invitation letters were sent to residents in the vicinity of the EFLS routing, relevant statutory/advisory bodies, concerned groups and other relevant organisations to publicize and appeal members of the public to attend the public forum.

2.2 Consultation Meetings

2.2.1 The statutory/advisory bodies, professional institutions, concerned groups, and transport operators listed below were consulted via consultation meetings:-

Date of Event	Event Details
5 Nov 2013	Consultation with the Kwun Tong District Council
5 Nov 2013	Consultation with the Wong Tai Sin District Council
7 Nov 2013	Consultation with Housing and Infrastructure Committee of the Kowloon City District Council
28 Nov 2013	Consultation forum with MTR Corporation Limited, the Kowloon Motor Bus Company Limited and Hong Kong Tramways, Limited
10 Dec 2013	Consultation Forum for Professional Institutions (I)[1]
7 Jan 2014	Consultation with the Representatives from Marine Trades
14 Jan 2014	Consultation with the Task Force on Kai Tak Harbourfront Development of the Harbourfront Commission
21 Jan 2014	Consultation Forum for Professional Institutions (II)[2]

[1] Representatives from Hong Kong Institution of Engineers, Hong Kong Institute of Surveyors, Royal Institution of Chartered Surveyors Hong Kong, the Chartered Institution of Highways and Transportation – Hong Kong Branch, the Hong Kong Institute of Planners, Hong Kong Institute of Urban Design and the Chartered Institute of Logistics and Transport Hong Kong participated in the forum.

[2] Representatives from Hong Kong Institute of Urban Design and the Chartered Institute of Logistics and Transport Hong Kong participated in the forum.

2.2.2 Consultation papers and/or PowerPoint presentation materials were prepared to facilitate the stakeholders to understand the Stage 1 PC outcome, the latest development of EFLS proposal and the proposed next step, in particular, in the following respective topics:-

(i) Purpose of the consultation;

(ii) Background of the proposed EFLS;

(iii) Stage 1 PC outcome – public views summarised into 3 issues of most concern and our responses;

(iv) The refined EFLS alignment as shown at **Appendix A** was recommended as the preferred base option for the proposed DFS. In this refined EFLS alignment, the proposed locations of some of the EFLS stations were further reviewed and refined to avoid overlapping service catchment areas and to enhance public access to commercial developments at the Kowloon Bay business area, in response to the public suggestions received in the Stage 1 PC; and

(v) Next move for the EFLS – proposing a DFS to ascertain various critical issues before committing to project implementation, with the following suggested scope for public deliberation:-

- the technical design of stations and depot, the choice of operating system and operation and maintenance requirements;
- a preliminary environmental impact assessment;
- ways to improve the financial efficacy of the project, project implementation strategy as well as more detailed capital cost estimates and financial assessments;
- flexibility for future expansion of the EFLS network;
- enhancement of the multi-modal connectivity of KE with neighbouring areas before and after the EFLS implementation; and
- more beneficial use of the water body at Kai Tak and concerns about the loss of sheltered space for tall vessels.

2.3 Public Forum

2.3.1 A public forum was conducted on 7 December 2013 (Saturday afternoon), at the school hall of Lee Kau Yan Memorial School (李求恩紀念中學) in San Po Kong to gauge more widely the public views.

2.3.2 A copy of the PowerPoint presentation material is enclosed at **Appendix B.**

2.3.3 A total of 78 participants joined the forum. It was observed that the participants came from different sectors of the community including local residents, environmental and local concern groups, Legislative Council, District Councils, marine trade operators, transport and support services providers, and development / real estate industries. During floor discussion, a total of 47 participants raised questions or expressed their opinions on various issues of concern, including 25 participants in-person, and written comments from 22 others whose messages/written comments were read out by the moderator.

2.3.4 Some photos taken at the public forum are enclosed at **Appendix C.**

2.4 Briefing

2.4.1 On 22 January 2014, we were invited to give a briefing to Laguna City residents. The attendees included the chairman of Laguna City Estate Owners' Committee and about 40 committee members / local residents.

2.5 Public Opinions Collected through Other Channels

2.5.1 A list of written comments collected through other channels, such as letters, emails, position papers and referrals from other government departments, is enclosed at **Appendix D**.

3 SUMMARY OF PUBLIC VIEWS

3.1 Overview of the Stage 2 PC Outcome

3.1.1 An overview indicates that the feedback on the proposed DFS was positive. Local communities generally supported the proposed EFLS and urged for early implementation or extension to adjacent districts, whilst some commented on the visual impact and financial viability.

3.1.2 Public feedbacks received in regard to our responses to each of the three key issues identified in the Stage 1 PC and the proposed DFS were collated at **Appendix E**. A brief summary is outlined in the ensuing paragraphs.

3.2 Issue 1 – Need for an Elevated Rail-based EFLS

3.2.1 Public generally agreed that good connectivity was essential for developing a CBD in KE and concurred that coverage of existing and planned MTR services in KE was limited, serving only the peripheral areas. They understood the limitations of Kai Tak being an ex-airport with restricted access and the road capacity constraint in Kwun Tong and Kowloon Bay and supported the need of an integrated multi-modal linkage system for KE.

3.2.2 Public generally appreciated the role of the proposed EFLS to serve intra-district and inter-district movements in KE. District level opinions were in general supportive of the proposed EFLS in the form of elevated monorail, with some urging for further extension to adjacent old districts and early implementation.

3.2.3 There were public concerns about the high capital cost of the proposed EFLS and the recent closure of Sydney Monorail; some queried if there were any successful examples overseas. There were also concerns about inconvenient access to elevated monorail stations and safety arrangement for emergency evacuation.

3.2.4 Some suggested replacement of monorail by other less costly and more flexible road-based transport modes, including modern tramway, Urban Light Transit (ULTra)[3], rubber-tyred Automatic People Mover (APM)[4], bus rapid transit (BRT)[5], electric buses, or even creating a comprehensive network for cycling and walking.

3.2.5 A proposal for using modern tramway in lieu of monorail as the EFLS system for KE was advocated. The proponent claimed that modern tramway could offer much lower capital cost and fare level, which attracted widespread discussions amongst the public. "Support" views based mainly on its claimed low capital cost/fare whilst "Against" views challenged its applicability in KE.

3.2.6 Some understood the constraints of KE to accommodate a new at-grade modern tramway and urged government to focus the DFS on investigation of an elevated rail-based EFLS and expedite its implementation to support CBD development in KE. A few also suggested a parallel study be done on other road-based options (including electric buses and walking corridors) as fallback solutions for not choosing the monorail proposal after the DFS.

3.3 Issue 2 - Alignment and Coverage

3.3.1 The public views and suggestions on the proposed EFLS station locations are as follows: -

(i) In particular, residents of the public housing estates in Kai Tak requested the retention of a EFLS station near Kai Ching Estate as previously proposed in Stage 1 PC;

(ii) Some considered the proposed station at Richlands Garden could be better positioned to serve a wider catchment; and

(iii) Some suggested adding a station near Hung To Road, and retaining the previously proposed Wang Kwong Road Station.

[3] ULTra is an example of Personal Rapid Transit. ULTra uses an automated fleet of four to six-seat electric vehicles moving along a network of elevated tracks to carry passengers point to point. Stations are located on track separated from the main track so that stopped vehicles do not interfere with the passing traffic.

[4] APM is a light capacity elevated rail system, of which the train capacity is comparable to that of monorail. The APM requires a slab structure for mounting its guideway.

[5] BRT is a bus-based mass transit system, in which buses operate within a fully dedicated right of way in order to avoid traffic congestion.

3.3.2 The public views and suggestions on the coverage of the proposed EFLS are as follows: -

(i) There were separate requests to extend the proposed EFLS to adjacent districts, including To Kwa Wan, Kowloon City, San Po Kong, Hung Hom, Sau Mau Ping, Ngau Tau Kok and Lei Yue Mun;

(ii) There was general support for government's proposal to explore in the DFS design flexibility of EFLS for future extension to adjacent districts if opportunities arise in the long term. At the same time, some suggested interim measures to serve these areas should be considered;

(iii) There was no objection to further study alternative alignments at Hoi Yuen Road and King Yip Street in the DFS to review their synergy with the CBD development, financial implications and impact on local traffic before finalizing the choice; and

(iv) If extension to To Kwa Wan was not feasible, some asked for shifting the alignment closer to the edge of To Kwa Wan, i.e. around the western periphery of the Multi-purpose Sports Complex (MPSC).

3.3.3 In regard to the interchange connections with MTR, some suggested interchange with MTR Ngau Tau Kok Station instead in view of the congestion of MTR Kwun Tong Station; similarly, some suggested connection with MTR Yau Tong Station to provide a more convenient interchange for people to/from Hong Kong Island.

3.3.4 Some considered lack of direct connection between the two Business Areas and suggested realignment of EFLS via the existing Taxiway Bridge and Wai Yip Street instead of via the KTTL to improve connections.

3.4 Issue 3 – Implications for the Kwun Tong Typhoon Shelter

3.4.1 As the KTTL would impose restriction on high mast vessels from using the KTTS, representatives of the marine trades reiterated the importance of keeping KTTS for marine safety and urged for proper mitigation measures to address the loss of sheltered spaces in KTTS. They requested that decision on KTTL should be subject to satisfaction of the marine trades on the proposed mitigation measures.

3.4.2 There were conflicting views on the height of KTTL. Some worried about suitability and safety for pedestrian walking or cycling at height, whereas others considered the need to explore better use of the water body for other activities.

3.5 Other Suggestions on the Scope of the DFS

3.5.1 Other views and suggestions for consideration in preparing the scope of the DFS were collated and summarized below:-

Technical Aspect

(i) critically review the patronage forecast and adequacy of train capacity to cope with future demand;

(ii) assess the need for a station based on the updated patronage forecast, and determine their locations, taking into account local district characteristics and cultural heritages;

(iii) consider adopting a smaller walk-in catchment area than that of an MTR station (i.e. a walking distance shorter than 500m) due to the short-haul travel nature of the EFLS;

(iv) design auxiliary facilities of elevated EFLS station to provide barrier-free access for the disabled and pedestrian linkage to nearby shopping malls, buildings, the landscaped deck at the ex-runway, or major public transport interchanges;

(v) design convenient and seamless connection at MTR/EFLS interchange stations, in particular, interchange with the future Kai Tak Station of SCL, investigate the congestion problem at the interchange MTR Kwun Tong and Kowloon Bay stations, and consider if additional escalators would be required for passenger circulation;

(vi) assess the environmental impacts, including visual and noise impacts, of the elevated EFLS;

(vii) study the social impact, including impact on the local community and the potential business opportunities or any benefits for the local people or community;

(viii) study the traffic impact, in particular, if existing bus services are to be re-routed from Hoi Yuen Road to make way for the proposed EFLS, during both construction and operation stages;

Financial and Implementation Aspect

(ix) set an affordable fare level for the EFLS;

(x) address the concern about financial viability of the EFLS project, and further investigate the ways to improve financial efficacy of the project, with a view to avoiding long-term subsidy by the Government;

(xi) study carefully the sustainability and affordability of the system;

(xii) committing to the monorail system should be subject to further quantitative and comprehensive assessments on financial viability as well as social and environmental impacts;

Topical Studies

(xiii) examine the roles of other road-based transport modes together with the proposed EFLS to address traffic issues in KE; and

(xiv) examine the implications of KTTL on both existing and potential future use of the water body at KTTS.

3.6 Modern Tramway Proposal

3.6.1 During the Stage 2 PC, we received a proposal for the use of modern tramway in lieu of monorail as the EFLS for KE. Comparing with the proposed monorail system, the proponent claimed that modern tramway could incur much lower capital cost and offer a much lower fare level, earlier implementation programme, higher flexibility for line extension or capacity expansion and easy accessibility at-grade. However, the proponent did not offer any substantiation on the cost estimate, completion timetable and other claimed benefits.

4 OUR RESPONSES

4.1 Issue 1 – Need for an Elevated Rail-based EFLS

4.1.1 There are successful monorail examples overseas and in the Mainland. We note expanding monorail network in Chongqing and many new monorail lines are under construction in countries such as Korea, Brazil and Saudi Arabia, serving as part of their public transport systems.

4.1.2 The decision of the Government of New South Wales to demolish the Sydney Monorail was not because of the failure of monorail technology. There were many contributing factors such as limited service coverage, round trip with single direction, poor connection with their light rail system or other public transport systems, resulting in high fare and decreasing patronage. The line did not allow for integrated fare transfers between local subways or bus connections and the alignment contravened with the planned expansion of the Sydney Convention and Exhibition Centre and other new developments.

4.1.3 Unlike the design of the Sydney monorail, the proposed EFLS, in the form of monorail, will form part of an integrated multi-modal linkage system for KE. It will provide two-way services to serve intra-district movements and through convenient interchanges with three MTR stations to facilitate inter-district movements. Adopting an EFLS fare level comparable with that of MTR, the PFS of EFLS forecasted a daily patronage of about 200,000 in year 2031. It is not appropriate to reject the proposed EFLS only because of the closure of Sydney Monorail.

4.1.4 To address the connectivity issue and select the most suitable EFLS for KE, we must consider two critical determining factors, i.e. the geographical characteristics and constraints of KE and the functional requirements of the proposed linkage system. Prior to considering the cost and financial performance, a chosen option must satisfy these two fundamental requirements. Our broad assessments on the various suggested alternative road-based systems are elaborated below:-

Modern Tramway

4.1.5 Kwun Tong and Kowloon Bay are well built-up areas with limited road space and many other road users. It could hardly accommodate a new modern tramway without significantly changing the road configuration and impact on other road users. The proposed modern tramway is about 2.4 m wide and 32 m long. Provision of two-way at-grade track would occupy nearly two traffic lanes plus an additional lane at locations with tram stations. If operated with dedicated corridor and priority at junctions, there is hardly space for road/junction widening to accommodate the system and other road users will have to be displaced. The 32m-long tram would block existing vehicular accesses to buildings which are closely spaced at some locations. If operated with shared road space with other users, its efficient operation will depend very much on the traffic condition and the provision of a high level of services, i.e. in terms of reliability, efficiency and safety, required by a CBD could hardly be achieved. Moreover, the approved Kai Tak OZP does not make allowance for an at-grade tramway system. To align tramway at open spaces, such as Metro Park, Station Square and along promenade would have significant impacts on other park users. Any major amendments to the OZP would affect the implementation of KTD. In summary, we do not consider modern tramway applicable in the specific context of KE.

Urban Light Transit (ULTra)

4.1.6 ULTra is not suitable for KE as it carries only about 4 to 6 persons per car, which is far below the capacity requirement for KE, estimated to be about 6000 passengers per hour per direction during peak periods. The proposed 2-car monorail, carrying about 250 people per train and running at two minutes headway, is capable to meet the demand.

Rubber-tyred Automatic People Mover (APM)

4.1.7 APM requires a slab structure for mounting guideway, which looks much bulky whereas monorail runs on beam girder guideway and have less blockage to daylight/ventilation. While the associated capital, maintenance and operating costs of the two systems are of similar order, the monorail system has an edge over APM in terms of visual impact.

Bus Rapid Transit (BRT)

4.1.8 Similar to modern tramway, BRT requires an exclusive traffic lane for operation; hence the congested road network in KE could hardly accommodate the system.

Electric buses and a Comprehensive Network for Cycling and Walking

4.1.9 We encourage the use of electric buses and well designed walkway system in KE as they have different roles to play in the integrated multi-modal linkage system to satisfy different travel needs. Trial schemes are being arranged to test suitability of electric buses for use in Hong Kong. However, due to the constraints imposed by the existing densely developed buildings in Kowloon Bay and Kwun Tong, there is inadequate space for improving the existing road network to cope with the substantial increase in traffic demand in KE arising from the CBD. Hence, it is not feasible to rely solely on road-based green transport to cater for the immense traffic demand in long run.

4.1.10 In the DFS, we will not merely investigate the elevated rail-based EFLS, but also look into the connectivity requirements in KE before the implementation of EFLS by formulation of a well planned integrated multi-modal linkage system. The DFS will investigate and identify measures to enhance the connectivity of KE at different stages of CBD development.

4.2 Issue 2 – Alignment and Coverage

Station Locations

4.2.1 The DFS will revisit the locations of the proposed EFLS stations and associated connections to serve a wider catchment. As for the suggested additional EFLS station at Hung To Road and retention of the previously proposed Wang Kwong Road Station, the proximity to other proposed EFLS stations has to be considered.

Coverage of EFLS

4.2.2 We have examined the feasibility to extend the EFLS to adjoining districts, including To Kwa Wan, Kowloon City and San Po Kong in the PFS. The study did not recommend any extension into these highly build-up areas due to current constraints in the ambient conditions including noise and visual implications as well as privacy concerns in residential zones. In addition, these areas are very congested and would hardly have adequate road space to accommodate the supporting structures of EFLS. In the long term, there might be opportunities to increase the developments in the adjacent districts through redevelopments. As such, the DFS will explore design flexibility of the proposed EFLS to cater for possible future extension when circumstances permit.

4.2.3 For better connections between neighboring areas and the KTD, the DFS will investigate measures such as strengthening road-based public transport services and enhancing pedestrian linkages to facilitate mobility of people.

4.2.4 Inter-district travel between KE and other districts such as Hung Hom, Sau Mau Ping and Lei Yue Mun would need to be considered in a much wider perspective under the network planning and development of our comprehensive public transport system. The proposed EFLS is a light to medium capacity rail system serving mainly intra-district movements within KE, it should not be treated as a heavy mass transit mode to resolve inter-district transport needs beyond KE.

4.2.5 To meet the required turning radius of monorail, shifting the EFLS alignment as suggested would likely encroach upon the MPSC site and might be in conflict with other planned facilities along the waterfront. Nevertheless, the DFS will carry out sensitivity tests on this option and explore any synergy for integrating EFLS station with the MPSC.

Interchange Connections with MTR

4.2.6 There are limited space around the MTR Ngau Tau Kok Station for construction of a proper EFLS terminus, even with the removal of the Elegance Road Garden and the adjoining primary school. The presence of viaducts at Kwun Tong Road and the elevated MTR Kwun Tong Line would make the EFLS viaduct about 25m above ground. This would cause serious visual impact and would be very inconvenient for interchange with the Ngau Tau Kok MTR concourse at ground level.

4.2.7 Although connection with MTR Yau Tong Station might offer convenient interchange for people to/from Hong Kong Island, swapping the interchange connection from Kwun Tong to Yau Tong would diminish the role of EFLS to serve the CBD in KE. Moreover, the resulting increase in alignment length would increase capital/maintenance and operating costs, and thus affect the financial viability of the EFLS project. Nevertheless, we would review the network development of EFLS and carry out sensitivity tests in the DFS to ascertain the optimum choice of network.

4.2.8 We are fully aware of people's concerns about further overloading of MTR Kowloon Bay and Kwun Tong Stations by the additional patronage brought by EFLS. The DFS would examine direct and convenient interchange arrangements with MTR stations, taking into account MTR station capacity.

Linkage between Kwun Tong and Kowloon Bay Business Areas

4.2.9 We have already compared the merits and demerits of both alignment options in our Stage 2 Public Consultation Digest. As the KTTL routing has an edge over the Taxiway Bridge alignment, KTTL is recommended as the preferred alignment option for further study. To ascertain the choice of EFLS alignment, we would review the network development in the DFS and carry out sensitivity tests on other alignment options. The DFS will also investigate ways to enhance accessibility of KE through integrated multi-modal linkage system.

4.3 Issue 3 – Implications for Kwun Tong Typhoon Shelter

4.3.1 The DFS will examine the need and reprovisioning measures for the affected high-mast vessels. The marine trades will be consulted during the process with a view to achieving a practicable option which is acceptable to the trades.

4.3.2 The DFS will explore other possible beneficial use of the water body in Kai Tak, and review the optimum height of the KTTL and its associated implications on the potential use of the water body.

4.4 Other Suggestions on the Scope of the DFS

4.4.1 All the suggestions as mentioned in paragraph 3.5.1 will be taken into account in preparing the scope of the DFS.

4.5 Modern Tramway Proposal

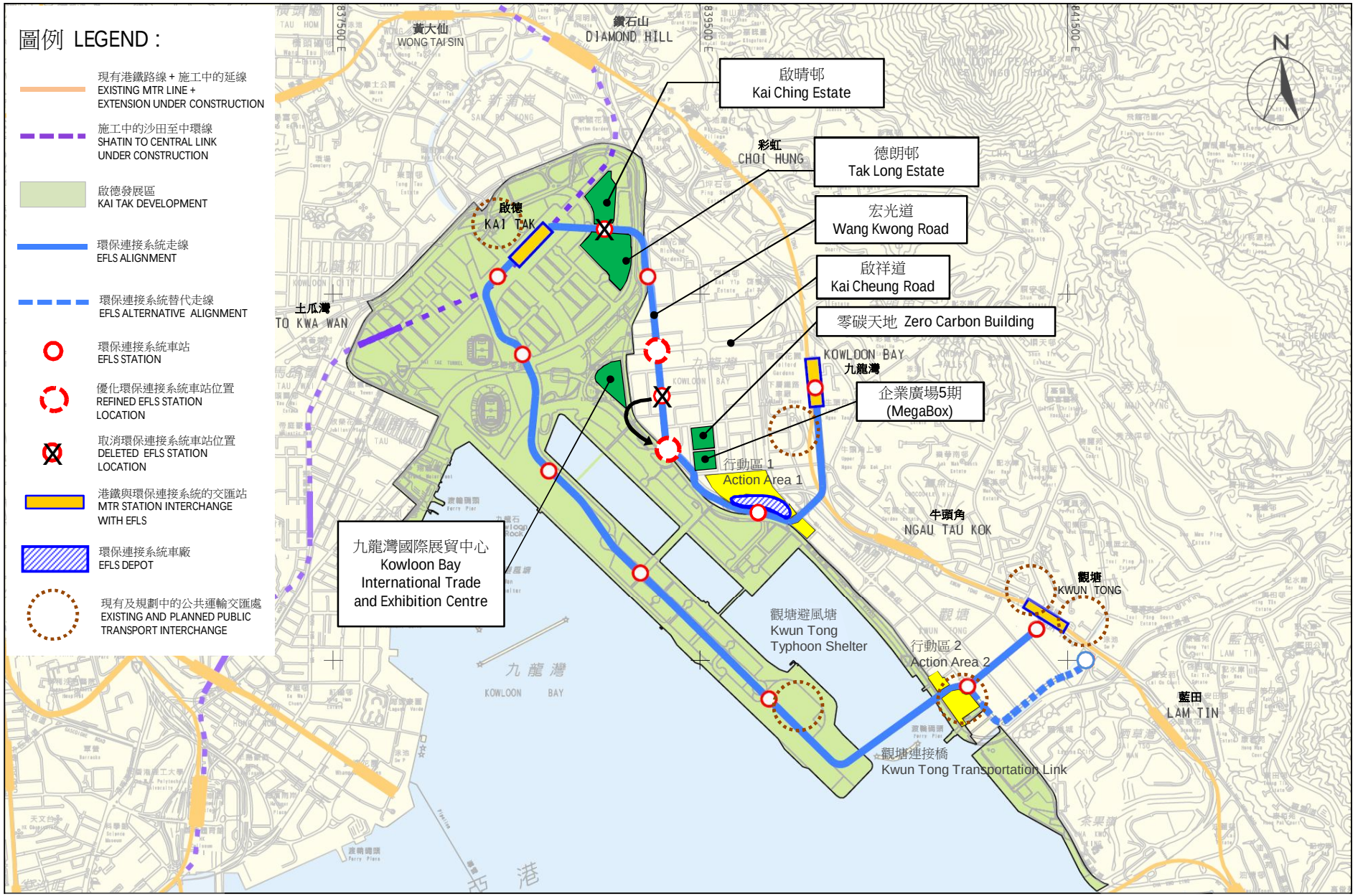
4.5.1 The limited road network within the highly built-up areas of Kwun Tong and Kowloon Bay cannot accommodate the tramway without significant impact on other road users. Interchanges with the elevated MTR Kwun Tong Line services would be most inconvenient and inefficient and would affect the overall accessibility of the CBD in KE. In sum, we do not consider modern tramway to be a viable alternative solution for KE. More detailed responses to the modern tramway proposal are at **Appendix F**.

4.6 Next Step

4.6.1 Although public reactions to the proposed EFLS are mixed, the public generally supports to conduct a DFS to ascertain its financial viability, environmental acceptability, as well as technical considerations covering alignment, system design and implementation programme. It is recommended that a DFS on the proposed EFLS should be commenced as soon as possible. The various public concerns on the proposed EFLS as identified in the two-stage public consultation could be addressed in detail under the DFS.

4.6.2 The DFS is needed to recommend an EFLS scheme which meets all statutory and Government requirements and is generally accepted by concerned stakeholders; to work out the details and the procurement method of the recommended EFLS scheme to such an extent that the Government could take forward the EFLS to the detailed design and construction stages if such decision is made; to determine a cost-effective multi-modal linkage system for phased implementation; to work out detailed mitigation measures to address the impact of the KTTL on high-mast vessels; and to investigate more beneficial use of the water body at the KTTS. The final decision on whether to implement the proposed EFLS would only be made after conclusion of the DFS.

Appendix A
Refined EFLS Alignment Plan



環保連接系統修訂走線圖
Revised EFLS Alignment Plan

Appendix B
Presentation Materials for
Public Forum

連繫九龍東 - 環保連接系統

Connecting Kowloon East -
Environmentally Friendly Linkage System

1

Stage 2 Public Consultation

Objectives

(I) to sum up and respond to public opinions received in the Stage 1 public consultation

(II) to seek views and suggestions on a proposed detailed feasibility study to address the various concerns before committing to project implementation

Consultation Period

28 October 2013 *to* **4 February 2014**

2

Stage 1 Public Consultation Outcome

EFLS to enhance the connectivity of Kowloon East for the development of an alternative CBD generally welcomed, but three issues of most concern raised:

1 Need for an Elevated Rail-based EFLS

- Good accessibility is essential for the development of a new Central Business District (CBD) in Kowloon East, but how?
- Concerns about high construction costs and low predicted operating returns
- Alternative option of road-based green transport?
- Why not at ground level or underground?

2 Alignment and Coverage

- Why not route via the existing Taxiway Bridge to Kwun Tong, instead of the proposed Kwun Tong Transportation Link (KTTL) bridge from the former runway tip?
- Can the KTTL section be curtailed or implemented at a later phase?
- Can the EFLS be extended to serve adjacent districts?
- Where are the desirable locations for the EFLS stations?
- Should Hoi Yuen Road or King Yip Street be the final leg to Kwun Tong MTR station?

3 Implications for the Kwun Tong Typhoon Shelter

- Public aspirations for more beneficial use of water body at the typhoon shelter
- Marine trade's concerns about the height restriction of KTTL

3

ISSUE 1: Need for an Elevated Rail-based EFLS

Connectivity Requirements for CBD in Kowloon East

Kowloon East Office Development Potential

1.4M m^2 Existing floor area + 4.0M m^2 Future floor area

- Is the existing road network adequate to cope with the future demand?
- Are the high service levels required for a CBD achievable if solely rely on the existing transport modes?

ISSUE 1:
Need for an Elevated Rail-based EFLS

Existing Road Conditions in Kowloon East

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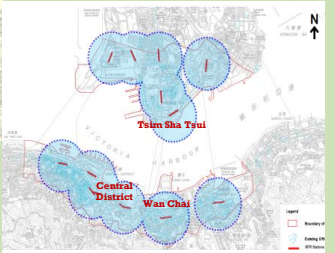
ISSUE 1:
Need for an Elevated Rail-based EFLS

Kowloon East Today

- Congested road network in built-up area
- Poor walking environment
- No full coverage of MTR services

Legend

- MTR Station 500m Walk-in Catchment
- MTR Station
- Proposed EFLS Alignment

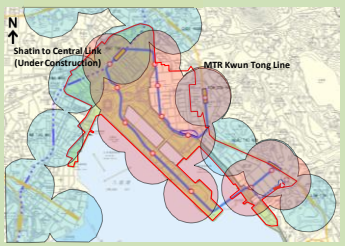


High level of accessibility in existing CBDs fully covered by MTR, franchised bus, taxi, elevated walkway system

6

ISSUE 1:
Need for an Elevated Rail-based EFLS

World-Class Connections for CBD



Legend

- MTR Station 500m Walk-in Catchment
- Proposed EFLS 500m Walk-in Catchment

Our Vision

Maintain good accessibility and connectivity for the CBD by an **integrated multi-modal linkage system** to serve demand of

- Strategic level
- Inter-district
- Intra-district
- Local level

} Role of EFLS

Early Stage (2013 onwards):

- Road-based green transport
- Improved walking environment

Longer Term : (beyond 10-15 years)

- Ground level transport alone inadequate to cope with demand or provide high service levels required for a CBD
- EFLS as connectivity backbone in Kowloon East
- Supplemented by rationalized road-based green transport
- Complementary pedestrian facilities

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ISSUE 1:
Need for an Elevated Rail-based EFLS

Ground-level EFLS possible?

With dedicated track ➔ occupy about 3 traffic lanes

Limited existing road space and the density of developed buildings in Kowloon Bay and Kwun Tong ➔ no space to accommodate it

Station occupies road space

Block side streets and building vehicular entrances

8

ISSUE 1:
Need for an Elevated Rail-based EFLS

Ground-level EFLS possible?

Without dedicated track ➔ affected by road traffic conditions

Difficult to achieve a high level of services required by CBD, i.e. **reliable, efficient** and **safe** service

Negative impact on promenade and public open space users

Add pressure to carriageway

Add pressure to footpath and crossing

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ISSUE 1:
Need for an Elevated Rail-based EFLS

Going Underground ?

- Higher construction cost
- Conflict with major underground facilities
- Inconvenient interchange with elevated MTR stations at Kwun Tong and Kowloon Bay

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ISSUE 2:
Alignment and Coverage

Taxiway Bridge Option?

- ✓ No impact on the Kwun Tong Typhoon Shelter
- ✓ Better connectivity between the Kowloon Bay and Kwun Tong business areas
- ✓ Enhanced connectivity between Kowloon Bay and the runway tip
- ✘ MTR Kowloon Bay Station likely be overloaded
- ✘ Overlapping service catchment area with MTR Ngau Tau Kok Station
- ✘ King Yip Street alignment option technically infeasible

KTTL Alignment

- ✓ Create synergy for the development of a leisure, recreation and tourism hub
- ✓ No impact on planned developments, including hospital sites at the former south apron
- ✓ Balanced interchange traffic between MTR Kwun Tong and Kowloon Bay Stations
- ✓ Both Hoi Yuen Road and King Yip Street alignment options remain viable
- ✓ A well-designed KTTL could become an iconic landmark of Kowloon East

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ISSUE 2:
Alignment and Coverage

Extend EFLS to adjoining districts (To Kwa Wan、Kowloon City and San Po Kong) ?

- Narrow street ➔ inadequate road space to accommodate EFLS supporting structure
- noise and visual implications in residential areas, privacy issues
- Worsen financial performance; arouse more controversies

Recommendation:

Further expansion not recommended at this stage; but

to consider the possibility of building in the flexibility for future expansion in the proposed detailed feasibility study.

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ISSUE 2:
Alignment and Coverage

Extend coverage to meet inter-district travel needs?

- EFLS, a light capacity rail system, cannot cater for inter-district transport needs.
- Inter-district transport needs to be met by multi-modal public transport systems

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ISSUE 2:
Alignment and Coverage

Refined Alignment

- Shift a station to open space next to Megabox
- Add a new station at junction between Kai Cheung Road and Wang Kong Road
- Delete a station next to Kai Tak public rental estates
- Keep both of Hoi Yuen Road and King Yip Street alignment options for further investigation

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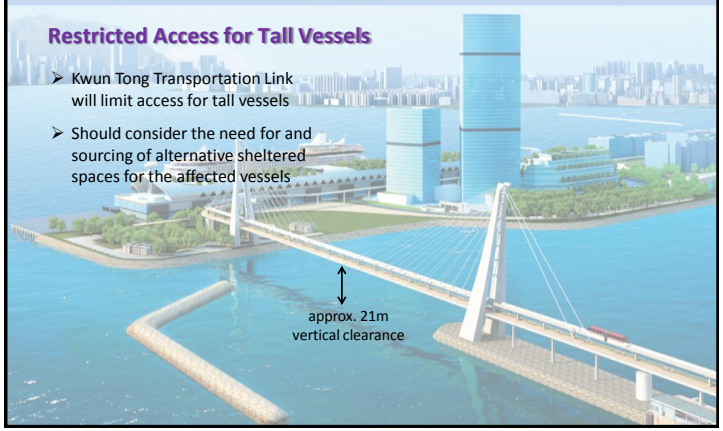
ISSUE 3:
Implications for the Kwun Tong Typhoon Shelter

Restricted Access for Tall Vessels

- Kwun Tong Transportation Link will limit access for tall vessels
- Should consider the need for and sourcing of alternative sheltered spaces for the affected vessels



ISSUE 3:
Implications for the Kwun Tong Typhoon Shelter

Public Aspiration for Other Use of the Water Body

- Explore the scope to release the water body for co-use with
  - water sport centre ?
  - leisure amenity ?

Kai Tak Fantasy

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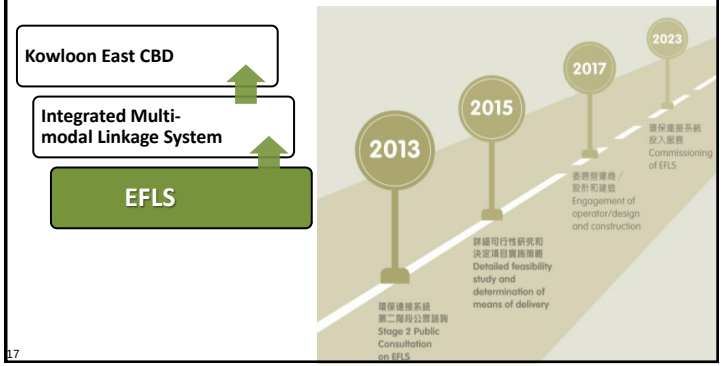
Next Move for the EFLS

EFLS will offer high-quality connectivity essential to secure the success of Kowloon East CBD



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Detailed Feasibility Study

Preferred Base Option

- Elevated monorail system
- 9 km & 12 stations
- Interchange with MTR Kowloon Bay, Kwun Tong and Kai Tak Stations

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Detailed Feasibility Study

Key issues require more in-depth study

- the technical design of stations and depot, the choice of operating system and operation and maintenance requirements
- preliminary environmental impact assessment
- ways to improve the financial efficacy of the project, project implementation strategy as well as more detailed capital cost estimates and financial assessments
- flexibility for future expansion of the EFLS network;
- enhancement of multi-modal connectivity of Kowloon East with neighbouring areas before and after the EFLS implementation; and
- more beneficial usage of the water body at Kai Tak and concerns about the loss of sheltered space for tall vessels.

Your suggestions are welcome

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Thank You

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Appendix C
Photos of Public Forum


Linkage System

Appendix D

List of Written Comments Received during Stage 2 Public Consultation

List of Written Comments Received during Stage 2 Public Consultation

(i) Email from Ms. Yeung dated 29 October 2013;

(ii) Public views received through 1823 dated 29 October 2013;

(iii) Email from Mr. Kwan dated 29 October 2013;

(iv) Email from Mr. Wong dated 29 October 2013;

(v) Public views received through fax dated 30 October 2013;

(vi) Email from Mr. Ho dated 30 October 2013;

(vii) Email from Mr. Fung dated 1 November 2013;

(viii) Letter from Democratic Alliance for the Betterment and Progress of Hong Kong (DAB) - Kwun Tong Branch dated 5 November 2013;

(ix) Letter from Mr. Tang Wing Chun, a Kwun Tong DC member, dated 5 November 2013;

(x) Letter from some members of Kowloon City District Council and Kowloon City District Resident Association dated 7 November 2013;

(xi) Letter from Office of Hon Dr. Helena Wong Pik-wan dated 7 November 2013;

(xii) Letters from DAB – Kowloon City Branch dated 7 November & 7 December 2013 and 30 January 2014;

(xiii) Letter from Hong Kong Association for Democracy and People's Livelihood dated 7 November 2013;

(xiv) Email from Mr. Kwok dated 10 November 2013;

(xv) Email from Mr. Wong dated 16 November 2013;

(xvi) Email from Mr. Low dated 20 November 2013;

(xvii) Letter from Hong Yip Service Co. Limited dated 21 November 2013;

(xviii) Letter from Hong Kong Tramways Limited dated 26 November 2013;

(xix) Email from Mr. Tse dated 30 November 2013;

(xx) Letter from Owners' Committee of Grand Waterfront dated 5 December 2013;

(xxi) Email from Mr. Lam dated 9 December 2013;

(xxii) Letter from CMA CGM (Hong Kong) Limited dated 11 December 2013;

(xxiii) Email from Mr. Chung dated 14 December 2013;

(xxiv) Letter from Hon Mr. Wu Chi-wai dated 19 December 2013;

(xxv) Email from Mr. Chan dated 10 January 2014;

(xxvi) Email from Mr. Wong dated 11 January 2014;

(xxvii) Email from Mr. Newton dated 22 January 2014;

(xxviii) Email from Ms. Lam dated 24 January 2014;

(xxix) Emails from Mr. Kam dated 25 January & 1 February 2014;

(xxx) Email from Mr. Tse dated 25 January 2014;

(xxxi) Letter from Ms. Cheung dated 28 January 2014;

(xxxii) Letter from the Mass Transit Railway Corporation Limited dated 29 January 2014;

(xxxiii) Letter from Ms. Luk dated 29 January 2014;

(xxxiv) Letter from Long Ching Fei Travel Company Limited dated 30 January 2014;

(xxxv) Position Paper from the Civic Party dated 1 February 2014;

(xxxvi) Email from Mr. Wong dated 3 February 2014;

(xxxvii) Email from Mr. Chan dated 3 February 2014;

(xxxviii) Email from Ms. Chan dated 3 February 2014;

(xxxix) Email from Mr. Lo dated 3 February 2014;

(xl) Email from Mr. Chan dated 4 February 2014;

(xli) Email from Ms. Kwok dated 4 February 2014;

(xlii) Email from Mr. Lee dated 4 February 2014;

(xliii) Email from Ms. Lam dated 4 February 2014;

(xliv) Email from Ms. Choi dated 4 February 2014;

(xlv) Email from Ms. Tsui dated 4 February 2014;

(xlvi) Email from Mr. Siu dated 4 February 2014;

(xlvii) Email from Steven dated 4 February 2014;

(xlviii) Email from Mr. Lo dated 4 February 2014;

(xlix) Email from Mr. Tam dated 4 February 2014;

(l) Email from Mr. Cheung dated 4 February 2014;

(li) Email from Mr. Chan dated 4 February 2014;

(lii) Email from Sensible Transport dated 4 February 2014;

(liii) Letter from the Kowloon Motor Bus Co. Ltd. dated 4 February 2014;

(liv) Letter from the Hong Kong Institute of Urban Design dated 4 February 2014;

(lv) Letter from the Chartered Institute of Logistics and Transport dated 4 February 2014;

(lvi) Letter from Designing Hong Kong dated 4 February 2014;

(lvii) Letter from the Hong Kong General Chamber of Commerce dated 4 February 2014;

(lviii) Letter from Vision Planning Consultants Limited dated 4 February 2014;

(lix) Email from Mr. Tam dated 5 February 2014;

(lx) Letter from Clean Air Network Limited in February 2014;

(lxi) Emails in the form of standard letter (a total of 78 copies) urging for withdrawing the monorail proposal and adopting modern tramway;

(lxii) Letters from Goodwill Management Limited dated 28 November 2013, 3, 5, 19, 20, 24 & 27 December 2013, and 3, 8, 16, 24 & 29 January 2014, which enclosed a total of around 230,000 copies of signed letters collected in Kwun Tong, supporting EFLS alignment to run along Hoi Yuen Road; and

(lxiii) Summary of key views of the local residents collected at a briefing on 20 January 2014, which was submitted by Laguna City Estate Owners' Committee in March 2014. According to a previous survey conducted by the Estate Owners' Committee, the majority of residents of Laguna City were supportive to EFLS alignment along King Yip Street.

Appendix E

Summary of Public Views Collected in Stage 2 Public Consultation

Summary of Public Views Collected
In Stage 2 Public Consultation

Public opinions collected in the Stage 2 public consultation (PC) are summarized into three issues as identified in the Stage 1 PC and other suggestions, which are detailed in the ensuing paragraphs.

Issue 1: Need for an elevated rail-based EFLS

District Level Opinions

1.1 There was general support from Wong Tai Sin District Council (WTSDC), Housing and Infrastructure Committee of the Kowloon City District Council (HIC of KCDC) and Kwun Tong District Council (KTDC) for the proposed elevated rail-based linkage system with convenient interchanges with the MTR stations at Kwun Tong, Kowloon Bay and future Kai Tak Station of the Shatin to Central Link (SCL). WTSDC and HIC of KCDC urged for further extension of the EFLS for a better integration between "old" and "new" districts and for helping revitalize these old districts to benefit the local residents. It was considered that the EFLS should not only meet the need for the development of Kowloon East central business district (CBD) but also serve the local residents. KTDC urged for an early implementation of the EFLS. All the three District Councils were in general supportive to the proposed detailed feasibility study (DFS) on the elevated rail-based EFLS as the next step.

1.2 District level opinions were in general supportive to the proposed EFLS in the form of elevated monorail. However, arising from concerns about the high capital cost of the proposed EFLS and the closure of Sydney Monorail, some members of the public opined that there were not many successful cases of monorail worldwide. Some others opposed to the monorail based on inconvenience in accessing the elevated EFLS stations and emergency evacuation concern. There were suggestions for using alternative transport modes, including modern tramway, Urban Light Transit (ULTra)[1], rubber-tyred Automatic People Mover (APM)[2], bus rapid transit (BRT)[3],

[1] ULTra is an example of Personal Rapid Transit. ULTra uses an automated fleet of four to six-seat electric vehicles moving along a network of elevated tracks to carry passengers point to point. Stations are located on track separated from the main track so that stopped vehicles do not interfere with the passing traffic.

[2] APM is a light capacity elevated rail system, of which the train capacity is comparable to that of monorail. The APM requires a slab structure for mounting its guideway.

[3] BRT is a bus-based mass transit system, in which buses operate within a fully dedicated right of way in order to avoid traffic congestion.

electric buses, and a comprehensive network for cycling and walking as the EFLS system, as a more cost-effective solution.

1.3 Hong Kong Tramways Limited (HKT) advocated a proposal of using modern tramway in lieu of using monorail as the EFLS system in Kowloon East. HKT's proposal, claiming with much lower capital cost and fare level, attracted widespread discussions about the choice of EFLS system amongst the public. Some opposing views and written objections to the monorail as the proposed system, together with suggestion for adopting modern tramway were received. Having said that, there were also supporting views to the EFLS in the form of monorail, which considered modern tramway not practical, given that further extension of modern tramway to other adjoining districts was not feasible due to obstruction by some major roads such as Prince Edward Road East and Kwun Tong Road; introducing a new at-grade transport mode would have adverse traffic impact to vehicular and pedestrian flows and thus worsen the already congested traffic condition in Kowloon East; and the efficiency/reliability of modern tramway could not be guaranteed if it was to share use of carriageway with other road-based transport modes.

1.4 The majority of participants in a public forum supported the provision of EFLS, with some of them urging for further extension of the EFLS into the adjoining old districts. It was hoped that this would improve connectivity among the old districts and new development zones and also with the existing MTR network, to boost local economic growth through providing efficient and safe public transport services. There were both "for" and "against" views on the HKT's modern tramway proposal expressed by the participants in the public forum.

1.5 In regard to choice of EFLS system, the Estate Owners' Committee of Laguna City, Kwun Tong expressed support to monorail and objection to modern tramway with a view to avoiding significant impact on other road traffic. They urged for an early implementation of the EFLS.

Professional Institutions' Opinions

1.6 The representatives from seven professional institutions, attending the two consultation fora held on 10 December 2013 and 21 January 2014, had no objection to the proposed DFS. They expressed the following views:-

- There were views that the development of a CBD required good connectivity, i.e. good connectivity could drive the transformation of the industrial area into a CBD. It was appreciated that there was a missing gap of MTR service coverage in Kowloon East, in particular,

the south apron area and the runway precinct of KTD, as well as the constraint of restricted access to the former airport area, and therefore understood the role of the proposed EFLS was to fill this missing gap;

- Some participants commented that the conditions of existing road traffic and pedestrian facilities in Kowloon Bay and Kwun Tong Business Areas were poor, and could not meet the commuters' need. Therefore, if the vision of the EFLS was to make the CBD work, it should be implemented as quickly as possible;

- Some participants considered that the financial viability of alternative environmentally friendly transport systems should be evaluated and compared side by side. However, some others opined that as the at-grade rail-based EFLS could not be accommodated in both existing and future Kowloon East, it would be more fruitful if we could concentrate on investigating a "feasible" mode, i.e. elevated rail-based EFLS; and

- Some participants opined that road-based transport modes were more user friendly, in particular, in response to the barrier free requirement.

1.7 A professional institution had the view that they supported the establishment of a new CBD at Kowloon East and the objective to provide enhanced connectivity amongst KTD, Kowloon Bay and Kwun Tong. However, they did not support the notion that the proposed monorail was the best or most desirable mode to achieve the objective.

Statutory/ Advisory Bodies', Political Parties' and Interested Organisations' Opinions

1.8 The Task Force on Kai Tak Harbourfront Development (KTTF) of Harbourfront Commission had no objection to the proposed DFS as the next stage of work. However, members expressed the following views:-

- Some members concerned about the high capital cost, noise/visual implications and inconvenience in accessing the elevated EFLS stations; and

- Individual member requested for a parallel study on other connectivity solutions (including electric bus and walking corridors) instead of just focusing on the feasibility of monorail in the DFS, so as to provide fallback options if the monorail proposal is eventually not preferred after the DFS.

1.9 Democratic Alliance for the Betterment and Progress of Hong Kong (DAB) urged for an early implementation of the proposed EFLS.

1.10 Hong Kong General Chamber of Commerce (HKGCC) supported the principle of an environmentally friendly, efficient, cost-effective and sustainable transportation system to enhance the accessibility and connectivity of Kowloon East, and to facilitate the development of another premier CBD in Kowloon East. However, they had concerns about the EFLS proposal in regard to the financial viability, low economic return, financial, social and environmental feasibility yet to be established, the implications of the KTTL on both existing and potential future use of the water body at Kwun Tong Typhoon Shelter, and the justification for the need of KTTL. HKGCC suggested the Government to explore the possibility of underground railway, electric buses on dedicated routes, cycle tracks, pedestrian facilities to provide both inter- and intra-district connectivity.

Transport Operators' Opinions

1.11 MTR Corporation Limited supported the EFLS proposal to provide a high quality, reliable and efficient service with seamless connections to MTR network. They considered that the elevated EFLS was well justified as the linkage system to serve Kowloon East, taking due consideration of the busy traffic and limited road space in the Kwun Tong and Kowloon Bay areas. They also shared their experience in Light Rail Transit (LRT) in Tuen Mun to demonstrate less reliable service and safety concerns of at-grade rail mode, which had resulted in strong public request to grade separate the LRT from road traffic.

1.12 Kowloon Motor Bus Company Limited considered that bus was a more flexible system compared to any fixed line solution such as rail or monorail, in meeting varying travel demand. They worried that the forecast EFLS patronage might be on the high side. They considered that the "bus-based" solution of using electric buses would be more favorable from the financial perspective. They opined that high cost, disruption to others during construction, visual impact and non barrier-free were major drawbacks of monorail. They urged the Government to re-consider other options such as green buses, before making a decision on implementation of the monorail.

1.13 HKT urged for considering the possibility of adopting at-grade modern tramway system as the EFLS for Kowloon East. They opined that modern tramway was more efficient in road usage compared with other road based public transport system and incurred less capital and operating costs.

Issue 2: Alignment and Coverage

District Level Opinions

2.1 Members of WTSDC, HIC of KCDC and KTDC, participants of public forum and individual members of the public suggested:

- retention of a previously proposed EFLS station near Kai Ching Estate, better positioning of the proposed station at Richlands Garden to serve a wider catchment, adding a station near Hung To Road, and retaining the previously proposed Wang Kong Road Station;
- extension of EFLS to adjacent districts, including To Kwa Wan, Kowloon City, San Po Kong, Hung Hom, Sau Mau Ping, Ngau Tau Kok, and Lei Yue Mun;
- in case further extension to To Kwa Wan not feasible, at least shifting the alignment closer to the edge of To Kwa Wan (i.e. to turn around Multi-purpose Stadium Complex at its western periphery); and
- in view of the limited capacity of MTR Kwun Tong Station, connecting EFLS with MTR Ngau Tau Kok Station or with MTR Yau Tong Station that offers a more convenient interchange for people to/from Hong Kong Island.

2.2 There was opinion that two separated service lines had the edge over the proposed one single service line, in that the Taxiway Bridge option (i.e. comprising two separated alignments) was considered better than the proposed one single alignment via KTTL.

2.3 The Owners' Committee of Grand Waterfront expressed their aspiration for extension of the EFLS to southern To Kwa Wan to serve the Grand Waterfront which is at a distance away from the SCL station.

2.4 Some written requests were received from Wong Tai Sin locals, urging for extension of the EFLS to connect with Kowloon City and San Po Kong, with a view to promoting the authentic cuisine, sightseeing of the heritage spots, art and cultural development in these old districts.

2.5 The possibility for building in the flexibility for future expansion of the EFLS proposed to be further investigated in the DFS was generally supported. There were suggestions that as an interim measure before further expansion of the EFLS into the adjacent old districts, provision of convenient pedestrian facilities, for example, travellator and subway, to connect the adjacent old districts including Wong Tai Sin and Kowloon City

with the EFLS stations should be further explored.

2.6 There was no objection to the proposed inclusion of both the Hoi Yuen Road and King Yip Street alternative alignments in the DFS to review their synergy with the CBD development, financial implications and impact on local traffic before making a final choice, though each of the alignments had its own supporters. Some property management companies submitted a total of around 230,000 numbers of signed letters collected by them in Kwun Tong, which supported the monorail routing via Hoi Yuen Road. On the contrary, the Estate Owners' Committee of Laguna City, Kwun Tong, collecting more than 28,000 signatures from their residents who opted for the King Yip Street alignment during the Stage 1 public consultation, reiterated their support to the King Yip Street alignment and suggested an integrated development of the EFLS Kwun Tong terminus together with the development at the vacant government land at King Yip Street. A few residents hoped that the EFLS would be further connected to Laguna City. There was also a written suggestion received from individual member of public that the EFLS, if King Yip Street alignment was chosen eventually, should be routed along Tsui Ping River.

Professional Institutions' Opinions

2.7 The representatives from seven professional institutions expressed the following views at the consultation fora:-

- Direct connection between Kwun Tong and Kowloon Bay Business Areas would be beneficial and should be explored in the DFS; and

- In view of the limited capacity of MTR Kwun Tong Station and a more convenient interchange for people to/from Hong Kong Island, connection with MTR Yau Tong Station instead of Kwun Tong Station should be further explored to increase EFLS's catchment area.

Statutory/ Advisory Bodies', Political Parties' and Interested Organisations' Opinions

2.8 DAB suggested shifting the EFLS alignment towards To Kwa Wan and adding one more EFLS station near the existing EMSD depot at the intersection of To Kwa Wan and Kai Tak, or extension of the EFLS to Kowloon City Ferry Pier/To Kwa Wan and another extension to Kowloon City.

2.9 The Hong Kong Federation of Trade Unions (FTU) urged for extension of the EFLS to other old districts for a better integration between the old and new districts.

2.10 The Civic Party had the view that the Government should consider sustainability in planning the EFLS coverage, aiming to benefit more residents in east Kowloon.

2.11 Hong Kong Association for Democracy and People's Livelihood, DAB, FTU and the Civic Party requested for retention of a previously proposed EFLS station near Kai Ching Estate. Some members of Legislative Council raised similar requests.

Issue 3: Implications for the Kwun Tong Typhoon Shelter

District Level Opinions

3.1 Some DC members urged the Government to work out a solution to mitigate the implications for Kwun Tong Typhoon Shelter (KTTS) imposed by the KTTL.

3.2 Some KTDC members suggested relocating the high-mast vessels using KTTS to other typhoon shelters, for example, To Kwa Wan Typhoon Shelter, to release the water body for other activities.

Marine Trades' Opinions

3.3 The marine trades had no objection to the development of an EFLS in Kowloon East provided that proper mitigation measures were available to their satisfaction to address the loss of sheltered spaces in KTTS. Otherwise, they would raise objection to the KTTL with a suggested vertical clearance of 21 m, which would restrict high-mast dumb steel lighters from using the KTTS. They expressed their wishes to have the reprovisioning of sheltered spaces within Victoria Harbour.

3.4 The marine trades considered the alignment of EFLS via Taxiway Bridge had the edge over the proposed KTTL.

3.5 The marine trades reiterated the importance of keeping the KTTS for marine safety and urged the Government not to take forward the KTTL unless the implication arising from restricted use of KTTS was properly resolved.

Statutory/ Advisory Bodies', Political Parties' and Interested Organisations' Opinions

3.6 A few members of KTTF worried if it would be suitable and safe for pedestrian walking or cycling along the KTTL with a vertical clearance of 21m, whereas others considered allowance should be given to consider alternative uses of the water body for other activities.

3.7 The Civic Party urged the Government to ensure that the vessels could seek shelter at the KTTS during typhoons.

Other Suggestions

4.1 Other views and suggestions for consideration in preparing the scope of the DFS were collated and summarized below:-

Technical Aspect

(i) critically review the patronage forecast and adequacy of train capacity to cope with future demand;

(ii) assess the need for a station based on the updated patronage forecast, and determine their locations, taking into account local district characteristics and cultural heritages;

(iii) consider adopting a smaller walk-in catchment area than that of an MTR (i.e. a walking distance shorter than 500m) station due to the short-haul travel nature of the EFLS;

(iv) design auxiliary facilities of elevated EFLS station to provide barrier-free access for the disabled and pedestrian linkage to nearby shopping malls, buildings, the landscaped deck at the ex-runway, or major public transport interchanges;

(v) design convenient and seamless connection at MTR/EFLS interchange stations, in particular, interchange with the future Kai Tak Station of SCL, investigate the congestion problem at the interchange MTR Kwun Tong and Kowloon Bay Stations, and consider if additional escalators would be required for passenger circulation;

(vi) assess the environmental impacts, including visual and noise impacts, of the elevated EFLS;

(vii) study the social impact, including impact on the local community and the potential business opportunities or any benefits for the local people or community;

(viii) study the traffic impact, in particular, if existing bus services are to be re-routed from Hoi Yuen Road to make way for the proposed EFLS, during both construction and operation stages;

Financial and Implementation Aspect

(ix) set an affordable fare level for the EFLS;

(x) address the concern about financial viability of the EFLS project, and further investigate the ways to improve financial efficacy of the

project, with a view to avoiding long-term subsidy by the Government;

(xi) study carefully the sustainability and affordability of the system;

(xii) committing to the monorail system should be subject to further quantitative and comprehensive assessments on financial viability as well as social and environmental impacts;

Topical Studies

(xiii) examine the roles of other road-based transport modes together with the proposed EFLS to address traffic issues in KE; and

(xiv) examine the implications of KTTL on both existing and potential future use of the water body at KTTS.

4.2 The views and suggestions in connection with the district traffic and transport issues, which have been referred to other relevant Government departments for follow-up include:-

(i) A few professional institutions urged for a holistic review on the better use of road space by different transport modes and administrative restraining measures to achieve an environmentally friendly and people-orientated transport and traffic;

(ii) HKGCC suggested the Government to review on administrative restraining measures to achieve a relatively green environment in a more cost-effective way;

(iii) Clear Air Network Limited urged the Government to establish a low-emission transportation strategy for Kowloon East;

(iv) A DC member suggested to increase car parking spaces in the vicinity of Kwun Tong Ferry Pier and Kai Tak Station of SCL to facilitate park-and-ride;

(v) There was suggestion that the main transport requirements in Kowloon East could be achieved through provision of incentives for developers and property owners to develop comprehensive integrated elevated and underground networks;

(vi) There was also suggestion for a further study on better connecting Kowloon East CBD both inside and with other CBDs;

(vii) There was suggestion to explore a more creative and better use of the spaces beneath the monorail, in between the supporting structures of the elevated EFLS; and

(viii) There was suggestion to further review different transport needs of Kai Tak Development and formulate relevant transport strategy.

Appendix F
Responses to Modern Tramway Proposal

RESPONSES TO THE MODERN TRAMWAY PROPOSAL

A proposal of using modern tramway in lieu of using monorail as the EFLS system in Kowloon East (KE) was received. Our observations on the modern tramway proposal in various key aspects are outlined in the ensuing paragraphs.

1. Limited Space in Kowloon East

The proposed tramcar is about 2.4m in width and 32m in length, and its associated two-way track (excluding station platform) would occupy about 6.4m width of road surface. It is envisaged that the tramway would occupy about 2 traffic lanes with an additional lane required for station.

The proposed tramway alignment (See **Enclosure 1**) would run through roads in KE where road widths are largely varying from 2-lane to 4-lane (a section of Wai Yip street has 6 lanes but its kerbside lanes are usually occupied for loading/unloading activities, resulting in an effective width of 4 lanes for other road traffic).

Adding in a new modern tramway in the well built-up Kwun Tong and Kowloon Bay areas, limited space could be an **insurmountable constraint**. It would be practically not feasible for roads to function properly if 3 out of 4 effective traffic lanes were assigned for exclusive use of the tramway (i.e. to form a dedicated corridor). There was limited scope for road widening due to the density of developed buildings. Besides, the impact to other road users would be enormous since the access to the many closely spaced side roads and building vehicular entrances would very likely be blocked by the 32m-long tramcar. Land adjacent to the MTR Ngau Tau Kok and Kwun Tong stations are not available for the construction of a tramway terminal and the claimed benefit of “convenient interchange with MTR” was unlikely achievable (See **Enclosure 2**).

In the new development area, the current Kai Tak Outline Zoning Plan had no provision for an at-grade tramway system. Re-planning the land use at the expense of other developments to accommodate the modern tramway would be necessary and would affect the implementation programme of Kai Tak Development (KTD). It is also noted that the proposed tramway alignment would clash with some planned residential developments, the Central Kowloon Route and hotel developments (See the marked-up in red at **Enclosure 1**).

2. Impact on Road/Junction Capacity, Signaling and Configuration

Given the proposed tramway alignment will route through many closely spaced problematic junctions, substantial junction reconfigurations as well as large-scale traffic engineering improvement works are envisaged in order to accommodate the modern tramway. There are locations where creation of new junctions to accommodate the tramways is technically not feasible.

3. Programme

The implementation programme for the modern tramway as suggested is at **Enclosure 3**. A 9-month construction period for Phase 1 and the earliest commissioning in 2018 are cited.

The claimed 9-month construction period and the earliest commissioning date are unrealistic due to various considerations yet to be taken into account, for example, time required for implementation of extensive temporary traffic management schemes during construction, availability of work sites in Kai Tak where most of the areas are being occupied by other contracts, time required for modification or re-design/reconstruction of the road drainage and other facilities along the tramway alignment to accommodate the underground power supply system, extensive reconfiguration of road junctions/ modification of streetscape, and time required for relocation of existing facilities before making the depot site available. Extra time will be required for land resumption and rezoning, if necessitated for junction modifications.

4. Efficiency and Reliability

Modern tramway is claimed to be a fast and reliable system in the animation on tramway proposal. It was mentioned that the tramway commercial speed is 20 km/hr and the headway is 3 minutes.

Making reference to the performance of Light Rail Transit (LRT) in Tuen Mun, the intra-district average speed could only reach 12.4 km/hr, even with a dedicated corridor and junction priority. Given the size of modern tramway and existing narrow roads in KE, provision of an exclusive tram corridor would be a non-starter as elaborated above. If the modern tramway is to share use of carriageway with other modes, it must be noted that without a dedicated corridor and junction priority, its travelling speed and reliability would be significantly lowered due to road junctions / prevailing road traffic conditions. The claimed tramway commercial speed at 20 km/hr and a 3-minute headway would not be achievable and the connectivity requirements for a CBD in terms of reliability and efficiency could never be met.

5. Safety Concern

According to the past experience of Tuen Mun LRT, the safety at road junctions would be a great concern. Due to the occurrence of fatal accidents and serious injury cases, there has been increasing public request for grade separation of the Tuen Mun LRT from road traffic.

6. Expandability of Train Capacity

It was mentioned in the proposal that the modern tramway would offer great flexibility to expand its capacity by simply adding in modules to extend the tramcar length. Therefore, the tramcar capacity could be doubled by extending the tramcar length to 64m.

Whether the tramcar can be extended to 64m would depend very much on the topography and layout of the local road network in KE. Obviously it would not be feasible to accommodate such a long at-grade station in the urban context of KE, taking into account the close junction-to-junction spacing, i.e. only 60m at some locations, and the closely spaced vehicular ingress/egress to the buildings, with only 10 to 20m separations in some locations.

7. Flexibility in Line Extension

It was mentioned in the proposal that the modern tramway could be further extended to To Kwa Wan, San Po Kong and outer areas of Kowloon Bay/Kwun Tong. Whether they are feasible is subject to engineering feasibility study and traffic impact assessment. For example, as extension from Kai Tak north apron to San Po Kong area will have to cut across the main trunk of Prince Edward Road East, traffic impact on the strategic road needs to be assessed very carefully. However, the above assessments are yet to be done by the proponent.

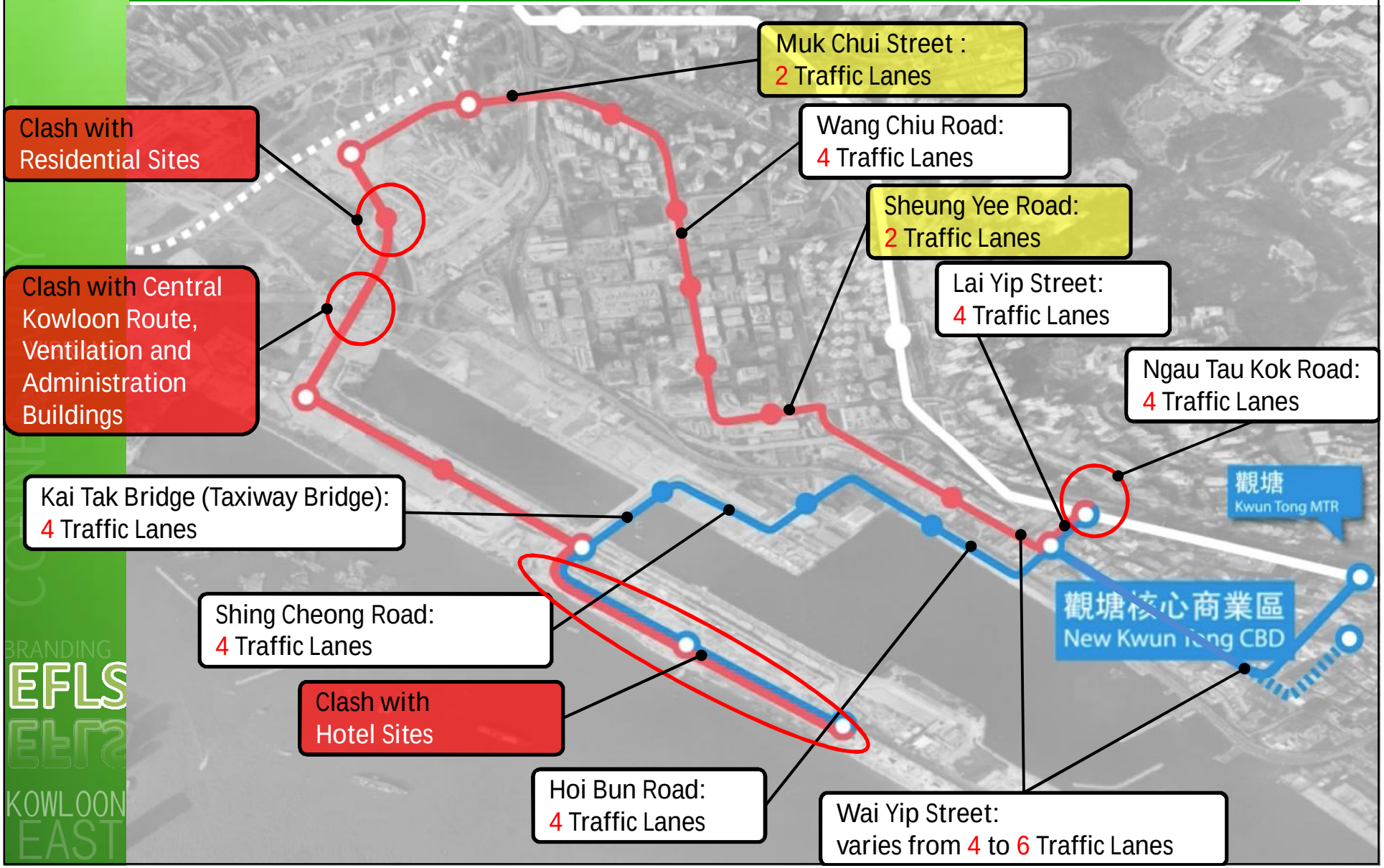
8. Capital Cost

As revealed from the respective website, similar proposal of 12km Sydney CBD and South East Rail (i.e. adopting modern tramway system) will cost about HK$11.2B (AUD$1.6B). The capital cost estimate of HK$2.8B for the 10.7km tramway network for KE as quoted in the proposal appears much on the low side.

The proposal is lacking substantiations on the claimed HK$2.8B capital cost and $3 fare level, and does not mention that whether other possible expenditures such as large-scale road and junction modifications, reconstruction of underground facilities and other associated works have been included in the capital cost. Therefore, we are unable to comment on this aspect.

Enclosure 1: Proposed Modern Tramway Alignment Plan

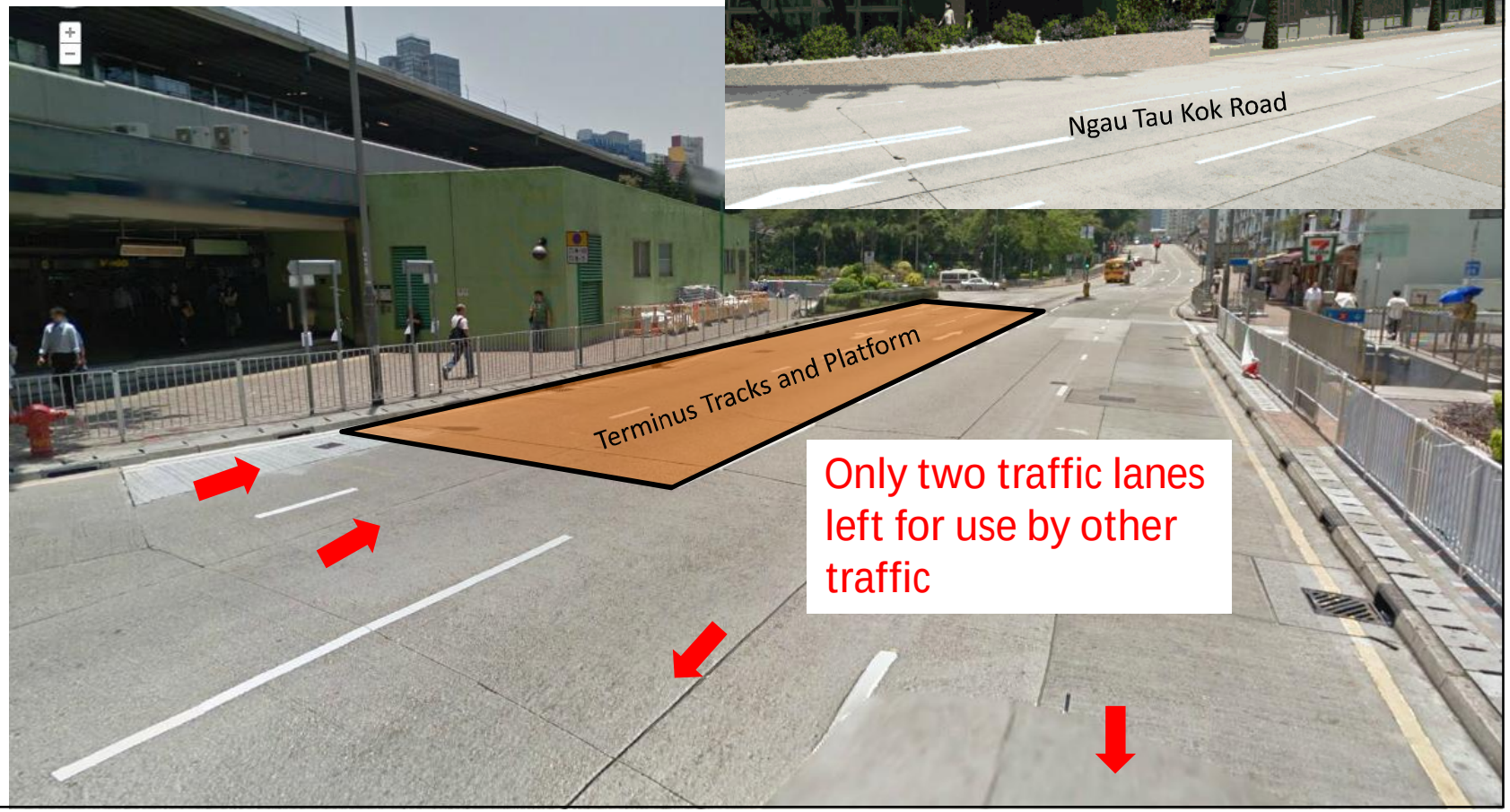
(alignment extracted from modern tramway proposal with remarks added by CEDD)



Enclosure 2a: Where to place terminus at Ngau Tau Kok ?

Terminus at Ngau Tau Kok Road

(Photomontage extracted from modern tramway proposal with remarks added by CEDD)

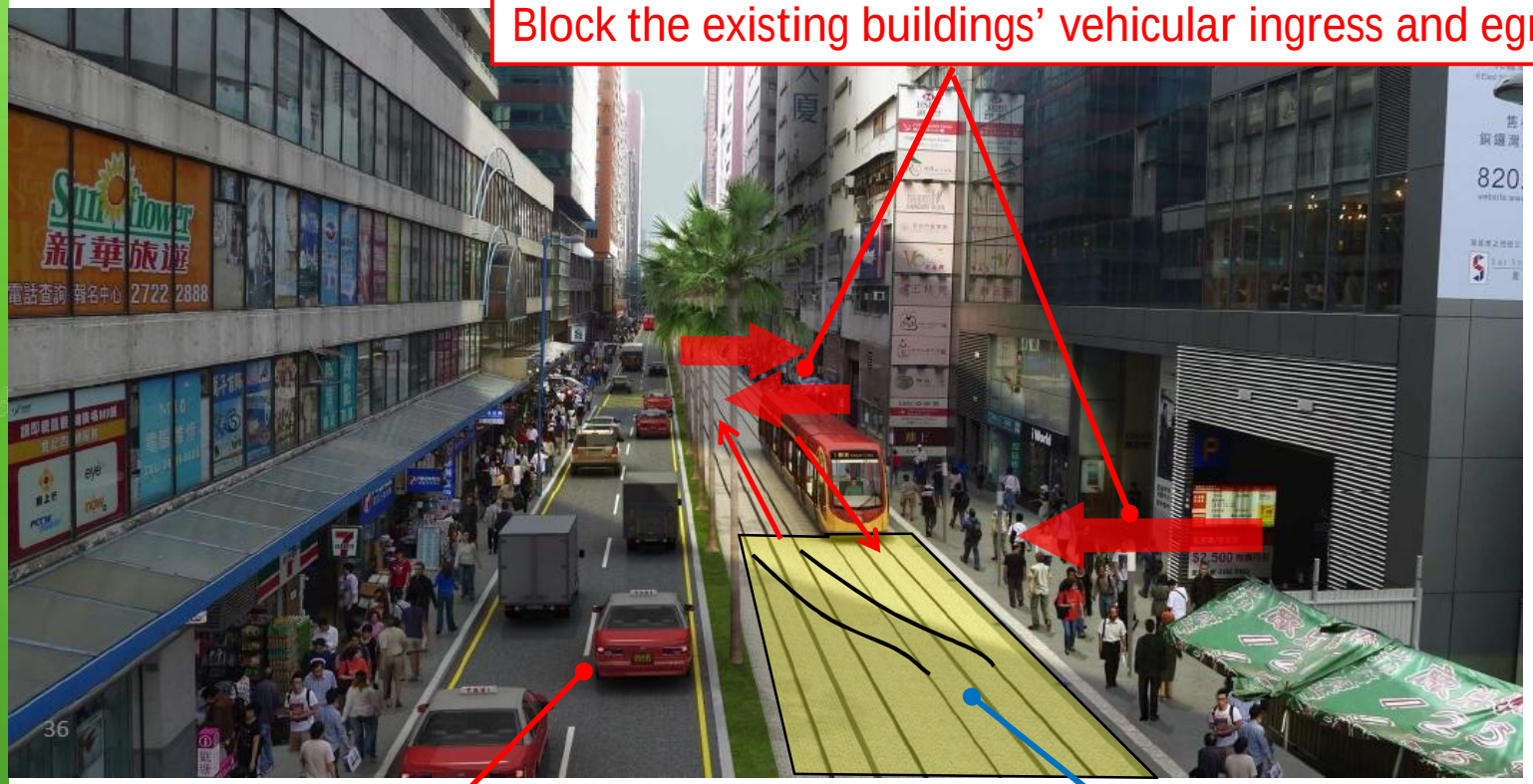


VIBRANT
CONNECTIVITY
DIVERSITY
BRANDING
EFLS
KOWLOON EAST

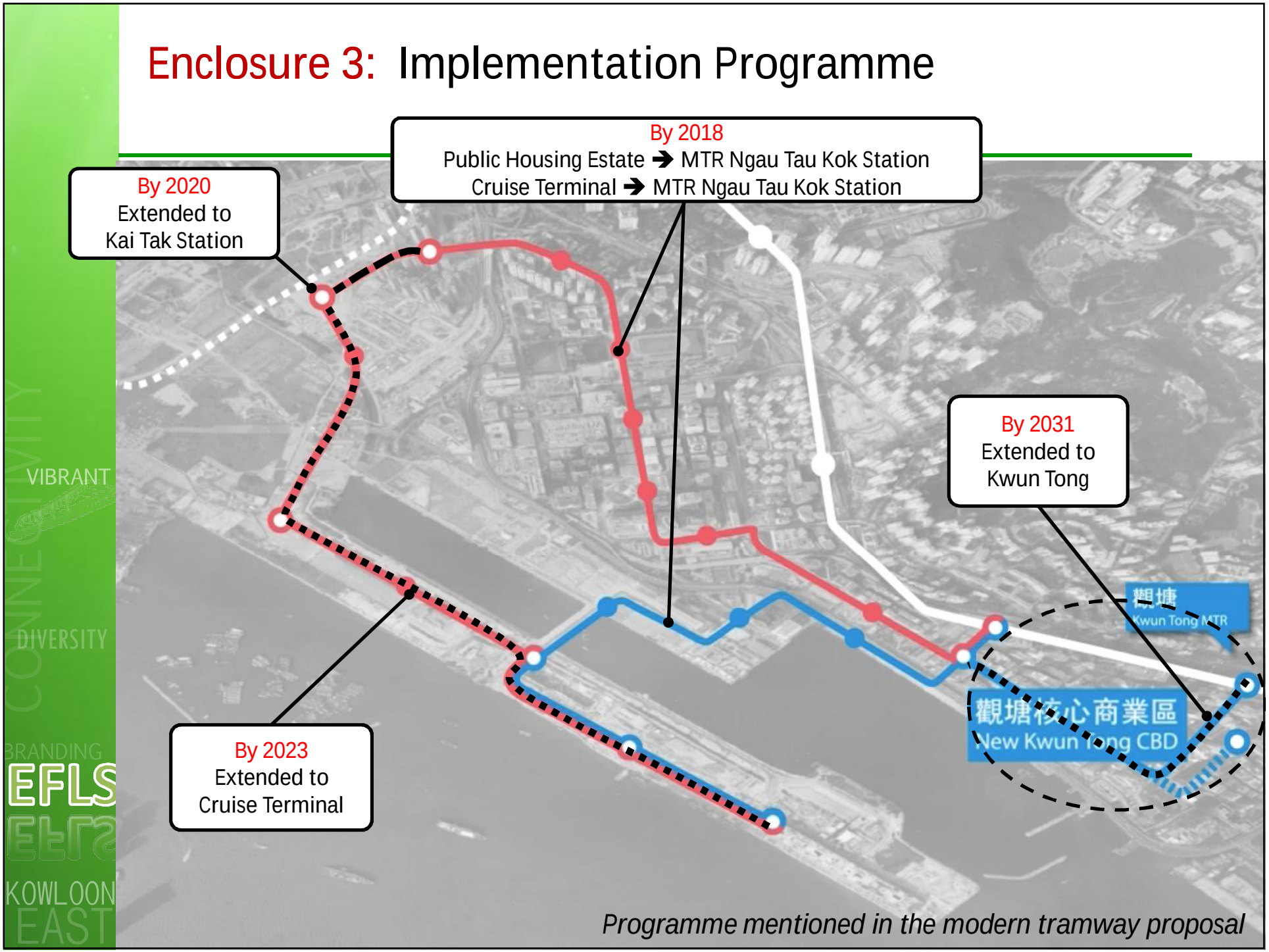
Enclosure 2b: Where to place terminus at Kwun Tong ?

Terminus at Hoi Yuen Road

Photomontage extracted from modern tramway proposal with remarks added by CEDD



Enclosure 3: Implementation Programme



Programme mentioned in the modern tramway proposal