# Kai Tak Development

**Project Profile** 

**July 2006** 

**Civil Engineering and Development Department** 

Drawing No. 1

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#### 1. BASIC INFORMATION

# 1.1 Project Title

Kai Tak Development

# 1.2 Purpose and Nature of the Project

- 1.2.1 The Project "Kai Tak Development" is to redevelop the former Kai Tak Airport area.
- 1.2.2 The Project was formerly known as "South East Kowloon Development (SEKD)". Previous Studies included the Feasibility Study for SEKD (completed in 1997) and the Comprehensive Feasibility Study for the Revised Scheme of SEKD (completed in 2001) had been carried out, which were focused on optimization of development potential of the ex-airport site with reclamation in the adjacent water bodies. In 2002, the Chief Executive in Council approved the draft Outline Zoning Plans proposed in the latter study. However, according to the Judgment of the Court of Final Appeal in January 2004 regarding harbour reclamation, the Protection of the Harbour Ordinance can only be rebutted by establishing an overriding public need for reclamation. As a result, a Comprehensive Planning and Engineering Review of the SEKD (the Review) is required.
- 1.2.3 The Review is broadly divided into two parts. Part I of the Review is a Planning Review. It started with "no reclamation" as the planning basis to formulate conceptual development options, i.e. the 3 Outline Concept Plans, for public participation before preparation of a Preliminary Outline Development Plan (PODP). The community and stakeholder groups shall be consulted again in finalizing the PODP, which will be subject to preliminary technical assessments to ascertain its feasibility in broad term. The finalized PODP will serve as basis for Part II of the Review.
- 1.2.4 Part II of the Review is to undertake detailed engineering feasibility studies including a Schedule 3 Environmental Impact Assessment (EIA) study, to confirm the feasibility of the PODP.

# 1.3 Name of Project Proponent

Kowloon Development Office, Civil Engineering and Development Department, the Government of Hong Kong Special Administration Region.

# 1.4 Location and Scale of Project and History of Site

- 1.4.1 The Project is located in the southeastern part of Kowloon Peninsula, comprising the apron and runway areas of the ex-Kai Tak Airport and existing waterfront areas at To Kwa Wan, Ma Tau Kok, Kowloon Bay, Kwun Tong and Cha Kwo Ling. It covers a land area of about 328 hectares. It also covers Kowloon Bay and Kwun Tong Typhoon Shelter and adjacent water bodies. **Drawing No. KZ 407** shows the boundary of the Project. The Kai Tak Airport was the international airport of Hong Kong until 6 July 1998, which was replaced by the Chek Lap Kok Airport. After closure, the airport site has been occupied by various temporarily uses such as public fill banks, bus depots, car sales exhibitions, recreational grounds and a golf driving range. In addition, most of original buildings and structures including the former Passenger Terminal Building and Multi-storey Carpark Building have been demolished and decontamination of the north apron area has been completed.
- 1.4.2 At the time of preparation of this Project Profile, a draft PODP as shown in **Drawing**No.1 has been prepared for public participation. This preliminary plan will be used as the basis for formulation of the PODP.
- 1.4.3 In terms of planning, the draft PODP is based on the planning theme: A New Harbour-front, City of Heritage, Green, Sports and Tourism". Under this plan, a series of sub-districts are proposed to be created within Kai Tak as briefly described in the following paragraphs for information.

#### Kai Tak City Centre at North Apron and North Apron East

With sizable developable area and the availability of Shatin to Central Link (SCL), a commercial belt and Station Square are planned to be developed around the future Kai Tak Station and above the SCL Depot. Kai Tak grid residential neighbourhood is also proposed in response to public aspiration for smaller development sites, podium free, better ventilation and more harmonious urban fabric with the hinterland. The development of Kai Tak City Centre will act as a catalyst for the regeneration of Kowloon City and San Po Kong.

#### **Sports Hub at North Apron West**

With great support from the sports community and the local community including district councils, a multi-purpose sports stadium complex will be the anchor of Kai Tak Development. The complex will be composed of a main stadium with a retractable roof and 45,000 seats, a secondary stadium with 5,000 seats, an indoor sports arena with 4,000 seats and other leisure and recreation facilities. The Main Stadium will be the new icon of Victoria Harbour. The development of Sports Hub in Kai Tak will be a major impetus to regeneration of To Kwa Wan and Kowloon City, while offering sports and recreation opportunities to the local communities.

#### Metro Park at Runway North and around Kai Tak Approach Channel

Metro Park is planned to be developed at the runway in response to public's aspiration for a genuine harbour park and keeping a collective memory of the runway. Apart from providing an opportunity for a harbour park of Hong Kong and venue for harbour-front activities, the Metro Park will also manifest the runway heritage and optimize the utilization of the deck over the runway gap.

# **Runway Precinct at Middle Runway**

A runway precinct is planned as a low-density residential development. A pedestrainized shopping street is planned as the main axis in the precinct to maintain street life and vibrancy from Metro Park to the Tourism Node. The runway precinct will also provide great views to ridgelines or Peaks in Hong Kong Island.

#### **Tourism and Leisure Hub at Runway South**

The tourism industry in Hong Kong has longed for a world class cruise terminal for many years and Kai Tak is considered as a suitable site for cruise terminal with expansion potential. Adjacent to the cruise terminal will be the Tourism Node housing a variety of indoor retail and entertainment facilities together with hotels to help in creating a new tourist attraction site. A runway park will be the dominant use at the end of the runway with aviation and other themes. A cross-boundary heliport is also planned at the tip of the runway.

#### **Mixed Use Corner at South Apron**

Mixed Use Corner is planned to rejuvenate the waterfront of South Apron by introducing a variety of residential, business and GIC (Government/Institution/Community) developments. The Mixed Use Corner will also help to regenerate Kowloon Bay and Kwun Tong into business waterfront area and create a continuous promenade to open up the Kwun Tong waterfront for public usage.

# 1.5 Number and Types of Designated Projects to be Covered by the Project Profile

- 1.5.1 The Project falls within item I under Schedule 3 of the Environmental Impact Assessment Ordinance (EIAO), i.e. engineering feasibility study of urban development project with a study area covering more than 20 hectares or involving a total population of more than 100,000. It is a Designated Project requiring an EIA report.
- 1.5.2 The Project includes various Schedule 2 Designated Projects under the EIAO that may be identified in the course of the EIA study. The following elements of the Project, which are identified as Schedule 2 Designated Projects are also covered by this Project Profile:
  - (i) Decommissioning of the former Kai Tak Airport other than the North Apron areas under (Schedule 2, Part II)
  - (ii) New distributor roads and sewage pumping stations (under Schedule 2, Part 1) servicing the Tourism and Leisure Hub at Runway South
  - (iii) Dredging works as part of the site formation for the proposed Cruise Terminal (under Schedule 2, Part I C, C.12)
- 1.5.3 EIA reports for the above Schedule 2 and Schedule 3 Designated Projects may be submitted separately.

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# 1.6 Name and Telephone Number of Contact Person

1.6.1 All queries regarding the Project can be addressed to:

Mr Talis Wong (Chief Engineer/Kowloon)

Kowloon Development Office

Civil Engineering and Development Department

Government of Hong Kong Special Administration Region

Tel: 2301 1455, Fax: 2369 4980

#### 2. OUTLINE OF PLANNING AND IMPLEMENTATION PROGRAMME

# 2.1 Project Implementation Time Table

- 2.1.1 Part I of the Review, i.e. the Planning Review, started in July 2004 and is anticipated to be completed in 2006.
- 2.1.2 Part II of the Review, i.e. the detailed engineering feasibility studies and the EIA, is anticipated to commence in early 2007 for completion in 2008 and construction of the Project may commence in 2009 the earliest.

# 2.2 Interactions with Other Projects

2.2.1 There are likely interactions with the following proposed projects outside the Project Area:

- (i) Central Kowloon Route Eastern End
- (ii) Tseung Kwan O Lam Tin Tunnel Kowloon Section
- (iii) Refuse Transfer Station at Cha Kwo Ling

#### 3. MAJOR ELEMENTS OF THE SURROUNDING ENVIRONMENT

- 3.1 The area of the Project covers the disused Kai Tak Airport, Kowloon Bay, Kai Tak Approach Channel, Kwun Tong Typhoon Shelter and the public cargo working areas, and certain existing developed areas at the airport perimeter. The regional setting is dense urban development, dominated by the existing aged residential and industrial areas of San Po Kong, Kowloon City and Ma Tau Kok.
- 3.2 There are major transport corridors surrounding the site which include Prince Edward Road East on the north and Kwun Tong Bypass on the east.
- 3.3 There are no natural habitats in the area. However, certain cultural/heritage relics such as the "Fish Tail Rock" are needed to be preserved or salvaged.
- 3.4 The southern side of the disused airport site is open to the Kowloon Bay, part of the inner harbour of Hong Kong. This water area contains To Kwa Wan Typhoon Shelter and mooring buoys for vessels.
- 3.5 In the past, environmental conditions in the study area were generally poor because of noise from the airport, industrial sources and the existing transport links. Air quality is generally adversely affected by traffic and major industries.
- 3.6 The odour of Kai Tak Approach Channel has long been one of the serious nuisances to previous airport users and the existing sensitive receivers nearby. In the proposed new development, the sensitive receivers would include new development sites in Kai Tak, existing residential developments at the airport perimeter, schools/ temples/ churches, and planned residential developments.

#### 4. POSSIBLE IMPACT ON THE ENVIRONMENT

#### 4.1 General

4.1.1 Whilst, currently, details of the various development components have yet to be worked out, the Review will adopt a proactive approach in minimizing the likely environmental impacts through landuse and transport planning.

# 4.2 Noise Impact

- 4.2.1 Noise impacts during the construction phase may result from various phases of construction activities, neighbouring concurrent construction works, the use of powered mechanical equipment, construction plant, traffic along site access roads, blasting, dredging and marine works, piling, etc.
- 4.2.2 The Project will have a number of operational noise sources for further attention, including (i) traffic noise from existing roads including major roads like Prince Edward Road East and Kwun Tong Bypass, (ii) traffic noise from new roads and railway system, (iii) new sewage pumping stations, rising mains & utilities, (iv) stadium and associated facilities, (v) helicopters and heliport, (vi) railway depot and ventilation shafts for railway station/tunnels, (vii) electricity transformers, (viii) shore and marine activities like cruise vessels, public cargo handling areas and typhoon shelters, etc.

# 4.3 Air Quality

- 4.3.1 Air quality impact during the construction phase may arise from construction activities primarily site formation, construction traffic, wind erosion of open sites and stockpiling areas, etc.
- 4.3.2 During the operation phase, potential sources of air quality impact are traffic emissions, emissions from ventilation shaft of tunnels and railway stations, exhaust from cruise vessels and odour from Kai Tak Nullah and Kai Tak Approach Channel, etc.
- 4.3.3 Existing air sensitive receivers like residents and schools around Kai Tak area and future air sensitive receivers may be impacted.

4.3.4 The odour problem of Kai Tak Approach Channel and Kai Tak Nullah would cause nuisance or impact to the surrounding sensitive receivers in the future.

# 4.4 Water Quality

- 4.4.1 Water quality impact may mainly come from: construction activities and discharges, dredging and marine works disturbing the seabed sediment, drainage diversion works and discharges, and stormwater/sewerage works.
- 4.4.2 The change in coastal configuration, e.g. opening a gap in runway, may alter the current speeds and flow and may affect the water quality. Diversion of flow, if necessary, from the hinterland areas particularly the polluted discharges may affect the pollution load in local water bodies.
- 4.4.3 Water bodies including Kai Tak Approach Channel, Kowloon Bay, To Kwa Wan Typhoon Shelter, Kwun Tong Typhoon Shelter and Victoria Harbour may be affected.

#### 4.5 Wastes

4.5.1 Wastes generated by the construction works are likely to include site wastes, workforce wastes, chemical wastes, construction and demolition materials and dredged sediment. The possible presence of contaminated sediments that may require dredging and disposal will need to be determined.

#### 4.6 Land contamination and Decommissioning of Former Kai Tak Airport

4.6.1 The land contamination issue and its impact in the Kai Tak Airport North Apron Decommissioning had been addressed in approved EIA report EIA-003/1998 Kai Tak Airport North Apron Decommissioning, as well as the submissions required under Environmental Permit No. EP006/1998 "Kai Tak Airport North Apron Decommissioning". Areas other than the North Apron area will be investigated and addressed.

#### **4.7** Risk

4.7.1 There are several existing potentially hazardous sites like the existing Ma Tau Kok (MTK) gasworks, dangerous goods godown at the end of Kai Tak Nullah, dangerous goods vehicle ferry pier and the chlorine trans-shipment dock at Kowloon Bay, which may present an environmental constraint and risk to the new development.

#### 4.8 Ecological Impacts

4.8.1 The existing surrounding area is highly urbanised, supporting a dense population and industrial activities. For the Project site, it is a former airport and it is currently a deserted flat/open area with a lot of temporary uses including construction/stockpiling sites and golf driving ranges. There is little vegetation present, comprising amenity planting or grassed areas. The quality of both fresh and marine water bodies is poor as a result of sewage and industrial pollution at present. The habitats that will be lost are of little ecological value.

# 4.9 Visual and Landscape Impacts

4.9.1 Visual impacts are likely to result from the introduction of a new urban area which would significantly change the existing visual system by reducing existing views of quality and resources (e.g. harbour waters). The possible glare effects of cruise terminal and stadium would also have to be addressed. The new development will bring in changes to the landscape which will affect both the quality and identity.

#### 4.10 Cultural Heritage

4.10.1 Cultural heritage relates to pre-aviation and aviation history of the area. Other historical heritage sites include the Kowloon City Execution Ground, the Kowloon City Public Pier, Hong Kong Flying School and Aviation Club Buildings, Fish Tail Rock, Sung Wong Toi Inscription Rock Kowloon Rock. There are also historical items within former Kai Tak Airport including two windpoles, airport pier, runway, seawall, fire station A, fire station B, fire station C and the adjacent pole. Three known archaeological sites namely Longjin Bridge Archaeological Site, Kowloon Port Archaeological Site and Kai Tak Archaeological Site fall within the Project Area. Impact should be minimized by avoiding physical encroachment or interface with the cultural heritage areas.

# 5. ENVIRONMENTAL PROTECTION MEASURES TO BE INCORPORATED IN THE DESIGN AND ANY FURTHER ENVIRONMENTAL IMPLICATIONS

- 5.1 The Study will investigate those environmental impacts and propose the appropriate mitigation measures with the explicit intention that all proposals would be environmentally acceptable and cost effective. The residual impacts, if any, would be confined within the allowable limit.
- 5.2 An initial list of the mitigation measures is as follows:

Key Environmental Issue	Potential Impacts	Mitigation Measures to be considered
Odour of KTAC (no reclamation)	Odour nuisance to surrounding planning sensitive receivers on the landside	Comprehensive approach is required to tackle odour sources and pathways including (i) improvement of water quality/circulation, (ii) improvement of sediment quality and (iii) control of pollution sources/discharges. Careful locating of future air sensitive receivers would be part of the landuse planning as the alternative approach to avoid the impact
Traffic noise from existing roads: Prince Edward Road East and Kwun Tong Bypass	Noise impacts to future planned sensitive receivers in Kai Tak	Planning to avoid impact by offering buffer distance, screening by non-sensitive uses, limitations of land development (e.g. building height, orientation, podium), screening by direct measures (e.g. noise barriers)  The side effects of the mitigation measures like visual impacts and the constraints on future development should be further investigated.

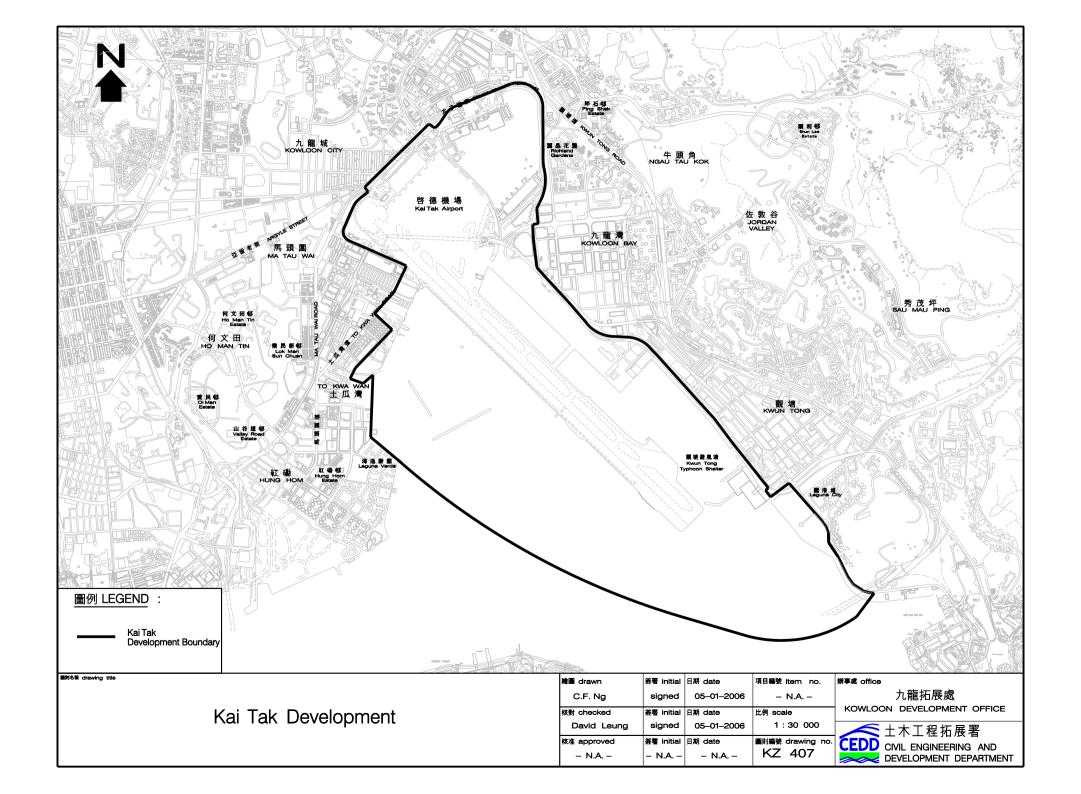
Key Environmental Issue	Potential Impacts	Mitigation Measures to be considered
Traffic noise from new planned roads within Kai Tak	Noise impacts to future planned sensitive receivers in Kai Tak and also some existing receivers along the boundary	Traffic and landuse planning are considered as the best way to reduce traffic noise from new roads.  Direct mitigation measures like depressed road and roadside barriers should also be considered if necessary.
Emissions and visual impacts from ventilation shafts /ventilation buildings of major underground roads e.g. Central Kowloon Route and Trunk Road T2 and ventilation shafts of railway station	Air pollution to surrounding sensitive receivers	Set back distance would be required to reduce the air pollution impact. There may be landuse constraints near ventilation shafts.
Noise from the Stadium	Noise impacts to surrounding future planned sensitive receivers	The retractable roof of the main stadium would be closed to mitigate noise impact if necessary.
Noise, exhaust and glare from the cruise terminal and vessels	Noise / air / visual impacts to surrounding future planned sensitive receivers	Locations and arrangements of sensitive landuse will be considered. Appropriate buffer zone will be allowed between cruise terminal and residential sites.
Noise from SCL, approach tracks and depot; Visual and landscape impact of railway depot	Noise impacts to surrounding future planned sensitive receivers	Railway should be underground and the depot should be covered or decked over.

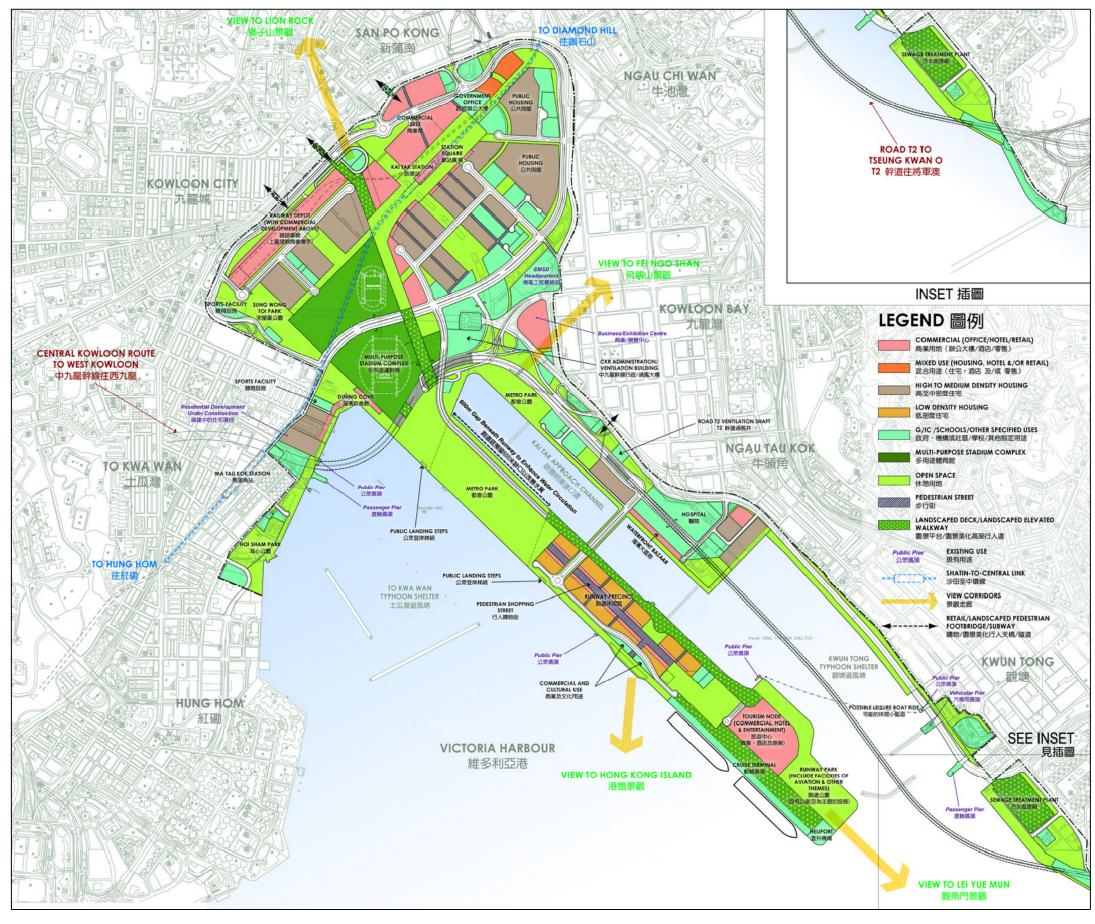
Key Environmental Issue	Potential Impacts	Mitigation Measures to be considered
Noise from heliport	Noise impacts to surrounding future planned sensitive receivers	Siting of heliport and orientation of flight path will be on the first priority to reduce the impacts from helicopters.

# 6. USE OF PREVIOUSLY APPROVED EIA REPORTS

- 6.1 The following approved EIA Reports will be referred in the Study:
  - Comprehensive Feasibility Study for The Revised Scheme of South East Kowloon Development (EIA Register No. AEIAR-044/2001 approved with conditions on 25 Sep 2001).
  - Kai Tak Airport North Apron Decommissioning (EIA Register No. AEIAR-002/1998, approved with conditions on 4 Sep 1998)

LIST OF DRAWINGS









in association with EDAW U+D, ADI, Atkins

Project title

Agreement No. CE 4/2004(TP)
South East Kowloon Development
Comprehensive Planning & Engineering Review
Stage 1: Planning Review - Feasibility Study
合約編號: CE 4/2004 (TP)
東南九龍發展
全面規劃及工程檢討
第一階段規劃檢討 - 可行性研究

Figure title

Draft Preliminary Outline Development Plan 初步發展大綱圖

Drawing No.1

Date: Jun.2006

Scale: N.T.S.