

Project Profile for Proposed Residential Development East of Ping Kong, Sheung Shui, N.T.

Prepared for:

Join Crown Development Ltd.

Prepared by: **ENVIRON Hong Kong Limited** 

In association with AIM Group Ltd. C K M Asia Ltd Townland Consultants Ltd. Ecosystems Ltd.

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# 1.0 Basic Information

# 1.1 Project Title

Proposed Residential Development East of Ping Kong, Sheung Shui (the Project).

# 1.2 Purpose and Nature of Project

The Project is a low-rise residential development on the southern fringe of the existing Sheung Shui New Town. The Project Site is zoned "Agriculture" ("AGR") on the Approved Ping Kong Outline Zoning Plan (OZP No. S/NE-PK/11). An application under Section 12A of the Town Planning Ordinance (TPO) (Cap. 131) has been submitted with the intention to amend the current "AGR" zoning of the Project Site to "Comprehensive Development Area" ("CDA") (Application No. Y/NE-PK/1). Decision on the application is currently deferred at the request of the Applicant, who is also the Project Proponent indicated below.

The majority of the Project Site comprises flat, active/abandoned farmland with some dilapidated temporary structures. With due considerations given to the local environmental conditions in its design, the Project will serve to upgrade the existing rural environment through environmentally sustainable development and result in a more compatible landuse to complement that of the planned Kwu Tung North and Fanling North New Development Areas (NDAs), thereby bringing overall benefits to the local community and environment. **Figure 1** presents the location of the Project.

#### 1.3 Name of the Project Proponent

The Project Proponent is Join Crown Development Ltd., who is the registered owner of the Project Site.

#### 1.4 Location and Scale of Project

The Project will occupy an area of about 20.9 ha, divided in two portions, in various lots in D.D.91 of Ping Kong, Sheung Shui, New Territories. **Figure 1** shows the location of the Project Site. The existing villages of Ping Kong and On Po are located to the north and west of the Project Site. An existing public housing estate, Ching Ho Estate, is located further north. The environs of the Project Site are shown in **Figure 2**.

The Project will be a low-rise residential development with a total of about 184 three-storey houses. The total domestic floor area upon development will be about 76,000m<sup>2</sup> at a plot ratio of about 0.36.

### 1.5 Name and Type of Designated Project to be covered by the Project Profile

The total area of the Project Site exceeds 20ha and the proposed residential development qualifies as a designated project (DP) under Item 1, Schedule 3 "engineering feasibility study of urban development projects with a study area covering more than 20 ha or

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involving a total population of more than 100,000" of the Environmental Impact Assessment Ordinance (EIAO) (Cap. 499).

# 1.6 Contact Person

The following person may be contacted for enquiries concerning this Project:

Mr. David Yeung, ENVIRON Hong Kong Limited, Tel. 3743 0788.

# 2.0 Outline of Implementation Programme

# 2.1 Project Time Table

The construction works are expected to commence in 2012 for completion in 2014.

# 2.2 Project Interface

There is no major known committed project in the immediate vicinity that would interface with this Project.

# 3.0 Major Elements of the Surrounding Environment

The Project Site is located on the fringe of the existing Sheung Shui New Town. Existing villages and residential uses such as Ping Kong Village, On Po Village and Ching Ho Estate, as well as a number of existing schools (e.g. Elegantia College) are found in the vicinity of the Project Site and they are identified as environmentally sensitive receivers with regard to the implementation of the Project. The Hong Kong Golf Club is located further west of the existing villages. A public housing estate is currently under construction to the northwest of Ching Ho Estate and it will likely become a sensitive receiver in future. The above features are shown in **Figure 2**.

The existing Ping Kong Road is located to the northwest of the Project Site. Other roads in the area include Ching Hiu Road and Ching Shing Road to the north and Fan Kam Road further west of the Hong Kong Golf Club (**Figure 2**).

The Project Site is mainly a mosaic of active and abandoned agriculture with isolated patches of woodland and plantation. The immediately surrounding areas comprise predominantly abandoned agriculture, as well as urbanized and disturbed land uses such as roads, villages and existing drainage channels. The ecological value of the Project Site will be assessed during the EIA study.

Two existing small drainage channels are found in the vicinity of the Project Site (designated Drainage Channels "A" and "B" on **Figure 2**). Most of the existing alignment of Drainage Channel A runs in a South-North direction outside the Project Site boundaries between the two portions of the Project Site but a small meandering section of the channel lies within the boundary of the eastern portion. The existing alignment of Drainage Channel B runs between On Po Village and Ping Kong Village and is entire outside the Project Site boundaries. Drainage improvement works for flood protection are currently being undertaken for the abovementioned channels by Drainage Services Department (DSD) as part of PWP No. 4148CD "Drainage Improvement Works in Ping Kong, Kau Lung Hang, Yuen Leng, Nam Wa Po and Tai Hang areas", which are anticipated to be completed in mid-2011. Upon the completion of the drainage improvement works, the meanders of Drainage Channel A will be straightened and the alignment will lie entirely outside the Project Site boundaries.

Two small-scale industrial premises, i.e. a covered car repair workshop and a covered godown, are located to the northwest of the Project Site at On Po Village. Their locations are also shown in **Figure 2**.

# 4.0 Possible Impact on the Environment

# 4.1 Air Quality

# 4.1.1 Construction Phase Impact

Construction dust would be generated from construction activities such as site formation, excavation, material handling, vehicle movements and wind erosion of unpaved areas. Potential impacts from construction dust are however expected to be short-term and could be readily mitigated by the adoption of good site practice through the enforcement of environmental control clauses in the works contracts.

# 4.1.2 Operational Phase Impact

Air quality impacts may arise as a result of traffic emissions from vehicles on the roads in the vicinity of the Project Site such as Ping Kong Road, Ching Hiu Road, Ching Shing Road and Fan Kam Road (**Figure 2** refers). Ping Kong Road and Ching Shing Road are local access roads with low traffic volumes. Ching Hiu Road is a Local Distributor while Fan Kam Road is a Rural Road. According to the Hong Kong Planning Standards and Guidelines (HKPSG), the minimum buffer distance required between active/passive recreational uses and a Local Distributor is >5m. Since the buffer distance between the Project Site and the surrounding roads ranges from over 100m to 300m, no unacceptable air quality impacts due to vehicular emissions are expected. Considering that the Project is a low-rise low-density residential development with a total of only about 184 residential houses, no unacceptable air quality impacts from the increased vehicle movements associated with the operation of the Project on the environment is expected

As no chimney associated with industrial activities has been identified within a distance of 500m from the Project Site boundary, it is expected that the Project Site will not be subject to unacceptable air quality impacts from industrial emissions during the operational phase.

#### 4.2 Noise

#### 4.2.1 Construction Phase Impact

The use of powered mechanical plant and equipment will be the major source of noise during the construction of the Project. The impacts are however expected to be short-term and could be readily mitigated by the implementation of effective control measures.

# 4.2.2 Operational Phase Impact

Road traffic on the surrounding road network may give rise to noise impacts on the Project during the operational phase but they are anticipated to be satisfactorily addressed through the adoption of appropriate development scheme layout and building designs for the Project. A covered car repair workshop and a covered godown are located at about 175m and 245m, respectively, from the western boundary of the Project Site at On Po Village. The industrial operations at these premises are very small in scale and are reported to occur only during

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daytime. Taking into account the relatively small scale of industrial operations and the substantial buffer distance, no adverse industrial noise impacts are expected.

## 4.3 Water Quality

## 4.3.1 Construction Phase Impact

Water quality impacts during the construction phase may include additional flow from site runoff, increase in suspended solids and turbidity, change in pH values, spillage of waste oils and sewage generated by the site workforce. These impacts are however expected to be minimized through the provision of proper construction site drainage and good site management.

# 4.3.2 Operational Phase Impact

Sewage is expected to be generated from the Project. It is currently envisaged that sewage effluents from the Project will be discharged through appropriate connections to the existing public sewerage system nearby. Further studies will be carried out as part of the design of the Project to investigate the adequacy of capacity and/or the requirement for upgrading the existing sewerage system in the area.

## 4.4 Waste Management

# 4.4.1 Construction Phase Impact

Waste generated during the construction of the Project will mainly comprise vegetation, excavated materials and materials from demolition during the site clearance/formation stage. Other types of waste may include small amounts of chemical waste and general refuse. The volume of wastes to be generated will be quantified and the implications on waste management will be considered in the EIA study.

#### 4.4.2 Operational Phase Impact

The proposed residential use of the Project will generate municipal waste. No significant impacts are expected with appropriate waste collection provisions in the design of the Project and the implementation of proper waste management procedures.

## 4.5 Ecology

#### 4.5.1 Construction Phase Impact

As discussed in Section 3 above, the existing habitats within the Project Site comprise mainly active and abandoned agriculture with small isolated patches of woodland/plantation. The construction of the Project will result in direct loss of existing habitats within the Project Site. Ecological disturbance may also arise as a result of construction activities. The ecological value of the habitats involved will be evaluated and the impacts from the Project on ecology will be assessed during the EIA study. Appropriate measures to address

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potential ecological impacts will be considered during layout planning and design of the Project.

# 4.5.2 Operational Phase Impact

The key ecological issue of the Project will be the loss of existing habitats. With the incorporation of appropriate measures during the planning and design of the Project, ecological impacts during the operational phase of the proposed residential development are expected to be minimal.

# 4.6 Cultural Heritage

No declared monuments or graded historic buildings are located within the Project Site or within a distance of 300m from the Project Site boundary (based on the latest information published by Antiquities and Monuments Office (AMO) on its website). A substantial part the eastern portion of the Project Site falls within the Po Leng Archaeological Site (see indicative boundary in **Figure 3**). There is currently no detailed information available from the AMO regarding the extent and archaeological potential of this archaeological site. It is understood that previous archaeological investigations in this area have found ceramic sherds dating back to Song dynasty and cultural remains of Ming and Qing dynasties. The construction of the Project may cause damage to or loss of buried archaeological remains and deposits and culturally significant features. A Cultural Heritage Impact Assessment will be conducted for this Project and the archaeological potential of the Project Site will be evaluated and assessed during the EIA study. Based on the assessment results, appropriate mitigation measures, if required, will be proposed.

#### 4.7 Land Contamination

#### 4.7.1 Construction Phase Impact

The Project Site has only been used for agriculture and has not been used for any potentially contaminating activities such as open storage or car repair/dismantling workshop. Potential impacts due to land contamination are not expected.

#### 4.7.2 Operational Phase Impact

The operation of the Project will involve only residential use, and therefore potential impacts due to land contamination are not expected.

# 4.8 Landscape and Visual

#### 4.8.1 Construction Phase Impact

Temporary landscape and visual impacts during the construction phase may arise as a result of disturbance to the existing landscape of the Project Site by the presence of construction plant and temporary structures such as false works for structural elements.

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# 4.8.2 Operational Phase Impact

With the poor visual amenity and somewhat degraded landscape character of the Project Site at present, the Project is likely to represent a source of positive landscape and visual impact in the longer term through the introduction of proper planning and environmental upgrading. Details of the landscape proposal will be developed during the EIA study.

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# 5.0 Potential Measures to Minimize Environmental Impacts

During the EIA study, potential environmental impacts associated with the Project will be further investigated in accordance with the Study Brief to be issued. Appropriate mitigation measures will be proposed, if required, to reduce the identified impacts to an acceptable level. Environmental monitoring and auditing of potential impacts will be recommended for the construction and operational phases of the Project where appropriate. The following are environmental measures that are currently envisaged to be incorporated in the Project. These will be further refined or elaborated, if necessary, after detailed assessments are completed in the EIA study.

# 5.1 Air Quality

#### 5.1.1 Construction Phase

The contractor of the Project will be required to follow the requirements of the Air Pollution Control (Construction Dust) Regulation. Good site management practices and dust control measures such as watering, vehicle speed control and stockpile covering will be implemented to minimize construction dust impacts on sensitive receivers.

## 5.1.2 Operational Phase

Adverse air quality impact during the operational phase is not expected in view of the buffer distance between the Project Site and nearby local roads and the absence of industrial emission sources within the 500m study area of the Project.

#### 5.2 Noise

#### **5.2.1 Construction Phase**

The contractor of the Project will be required to follow the relevant requirements of the Noise Control Ordinance. Good site management practices and noise control measures such as proper scheduling of works, locating noisy machinery away from sensitive receivers, use of silencers and mufflers, use of noise enclosure, regular maintenance of plant and equipment will be implemented.

#### **5.2.2 Operational Phase**

The exact details and extent of noise mitigation measures that may be required for the operation of the Project will be determined in the EIA study based on the results of detailed assessments to be conducted. In general, road traffic noise impacts on the residential units of the Project can be managed through appropriate site layout and building design and where necessary, the use of noise barriers.

There are two industrial activities identified outside the Project Site boundary (over 175m away). These industrial sites are small in scale and are relatively far away from Project Site, No adverse noise impacts upon the proposed development are expected to arise from the

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small industrial operations at On Po Village and no specific mitigation measures for industrial noise impacts are expected to be required.

# 5.3 Water Quality

#### 5.3.1 Construction Phase

The contractor of the Project will be required to follow the guidelines in Practice Note for Professional Persons on Construction Site Drainage (ProPECC PN 1/94) published by Environmental Protection Department (EPD) with respect to water quality control during the construction period. Site runoff and wastewater will be properly contained, collected and handled before disposal.

#### 5.4 Construction Waste

#### 5.4.1 Construction Phase

The contractor of the Project will be required to follow relevant provisions of the Waste Disposal Ordinance. Good site management practices and waste control measures (such as reuse of excavated materials, on-site sorting, waste recycling, and adoption of trip ticket system) will be implemented to control potential waste impacts.

Chemical and oily wastes that may be generated from the construction activities, vehicle, and plant maintenance and oil interceptors will be disposed of in strict compliance with the Waste Disposal (Chemical Waste) (General) Regulations.

#### 5.5 Ecology

## 5.5.1 Construction Phase

Due considerations will be given during the EIA study to the habitat loss and other ecological impact that may arise from the Project and any proposal for mitigation, if found to be necessary in the EIA, will be agreed with relevant authorities before the implementation of the Project.

The extent and degree of ecological disturbance from construction activities will be minimized as far as possible through measures such as visual screening, control of site runoff and careful scheduling of construction works.

The effectiveness of the proposed mitigation measures will also be monitored during the construction phase as part of the Environmental Monitoring and Audit (EM&A) programme to be developed in the EIA.

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# 5.5.2 Operational Phase

Ecological impacts are not anticipated from the operation of the Project. The effectiveness of any proposed ecological mitigation that extends into the operational phase will be monitored through the EM&A programme to be developed in the EIA.

## 5.6 Cultural Heritage

No measures to protect declared monuments or graded historic buildings are required given the absence of these features within or in the vicinity of the Project Site. Investigations will be undertaken during the EIA study to establish the archaeological significance of the Po Leng Archaeological Site and its implications on the Project.

#### 5.7 Land Contamination

No potential environmental impacts in relation to land contamination have been identified for the Project Site, and therefore no particular measures in this respect are required.

### 5.8 Landscape and Visual

#### 5.8.1 Construction Phase

The following measures will be considered for minimizing the potential landscape and visual impacts associated with the Project during the construction phase:

Retention of Valuable Landscape Resources on Site: - valuable landscape resources found on site (including trees, topsoil, etc) will be retained where possible for incorporation in the proposed development;

Good Construction Practice – Landscape and visual impacts during construction will be minimized by regulation of working hours, minimization of the duration of the works, and control of lighting on site;

Tree Protection - Trees to be retained within or adjacent to the works area will be carefully protected to avoid damage by machinery as well as to prevent dumping of materials or compaction of soil around tree roots; and

Tree Transplanting - Any trees identified as affected by the Project will be considered for transplanting to other areas within the Project Site or nearby suitable sites. The feasibility of transplantation will depend on a number of factors such as the size, health and species of the trees, as well as the condition of the local terrain. Adequate time will be allowed to prepare trees for transplantation.

The relevant mitigation measures will be included in the contract clauses for the works and the implementation of these measures will also be audited as part of the EM&A programme during the construction phase.

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# 5.8.2 Operational Phase

Landscape and visual mitigation measures to be incorporated for the Project may include the following:

Compensatory Amenity – the creation of amenity planting will be one of the means for compensating loss of existing vegetation on site;

Screen Planting - Planting of trees along the periphery of the Project Site will assist in screening visual impacts on VSRs;

Aesthetic Treatment of Buildings – Sensitive treatment in terms of architectural form and colour of the buildings will assist in reducing their visual impacts; and

Optimal Site Layout - alterative layouts will be considered to ensure that the landscape and visual impacts associated with the proposed development are minimized. The landscape and visual character may also be incorporated in the design of the buildings.

The details of landscape and visual impact mitigation measures will be formulated in the EIA study with respect to the findings of the assessment therein and these measures will be incorporated at an early stage of the design process.

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# 6.0 Use of Previously Approved EIA Reports

There is no previously approved EIA report applicable to this Project.

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# **Figures**





