

Project Profile for Proposed Residential Development within "Recreation" ("REC") Zone at Various Lots in DD 104, Yuen Long, N.T.

Prepared for:

Capital Chance Limited

Prepared by: **ENVIRON Hong Kong Limited**

In association with

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Contents

		P	age		
1.0	Basic Information1				
	1.1	Project Title			
	1.2	Purpose and Nature of Project			
	1.3	Name of the Project Proponent			
	1.4	Location of Project			
	1.5	Scale of Project			
	1.6	The Type of Designated Project Covered in the Profile			
	1.7	Contact Person			
2.0	Outline	of Planning and Implementation Programme	3		
	2.1	Statutory Planning Policies			
	2.2	Non-Statutory Planning Polices			
	2.3	Project Time Table			
	2.4	Project Interface			
3.0	Existinç	g and Planned Sensitive Receivers	5		
4.0	Possibl	e Impact on the Environment	6		
	4.1	Air Quality			
	4.1.1	Construction Phase Impact			
		Operational Phase Impact			
	4.2	Noise			
	4.2.1	Construction Phase Impact			
		Operational Phase Impact			
	4.3	Water Quality			
	4.3.1	Construction Phase Impact			
		Operational Phase Impact			
	4.4	Waste Management			
	4.4.1	Construction Phase Impact	7		
		Operational Phase Impact			
	4.5	Ecology	7		
	4.5.1	Construction Phase Impact			
	4.5.2	Operational Phase Impact	7		
	4.6	Cultural Heritage	8		
	4.7	Land Contamination	8		
	4.7.1	Construction Phase Impact	8		
	4.7.2	Operational Phase Impact	8		
	4.8	Landscape and Visual	8		
	4.8.1	Construction Phase Impact	8		
	4.8.2	Operational Phase Impact	8		
5.0	Potential Measures to Minimise Environmental Impacts9				
	5.1	Air Quality	9		
	5.1.1	Construction Phase	9		

	5.1.2	Operational Phase	. 9
	5.2	Noise	. 9
	5.2.1	Construction Phase	. 9
	5.2.2	Operational Phase	. 9
	5.3	Water Quality	
	5.3.1	Construction Phase	10
	5.4	Construction Waste	10
	5.4.1	Construction Phase	
	5.5	Ecology	10
	5.5.1	Construction Phase	10
	5.5.2	Operational Phase	
	5.6	Cultural Heritage	11
	5.7	Land Contamination	
	5.8	Landscape and Visual	
		Construction Phase	
	5.8.2	Operational Phase	12
6.0	Use of	Previously Approved EIA Reports	13

List of Figures

Figure 1 Location Plan of the Project

Figure 2 Existing Land-use Zones for the Application Site and Its Adjacent Areas

1.0 Basic Information

1.1 Project Title

Proposed Residential Development within "Recreation (REC)" Zone at Various Lots in DD104, Yuen Long, N.T. (the Project).

1.2 Purpose and Nature of Project

The Project Site comprises various lots in D.D. 104 near Fairview Park, Mai Po, Yuen Long. It has an area of about 91,000m². The site is sandwiched between Yau Pok Road and Fairview Park. Figure 1 shows the site location and its environ.

The Project Site is zoned "Recreation" ("REC") on the Approved Mai Po and Fairview Park Outline Zoning Plan (OZP) No. S/YL-MP/6 (Subject OZP). According to the Notes of the Subject OZP, the planning intention of the "REC" zone is, in brief, to encourage the development of active and/or passive recreation and tourism/eco-tourism. Uses in support of the recreational developments may be permitted subject to planning permission.

1.3 Name of the Project Proponent

The Project Proponent is the Capital Chance Limited., the registered owner of the Project Site.

1.4 Location of Project

The Project Site is located in between the completed Ngau Tam Mei Main Drainage Channel and a large scale residential development – Fairview Park. The Project Site is bounded by the said drainage channel and Yau Pok Road to its immediate east; Fairview Park to its immediate west; and several existing residential developments including Palm Springs, Royal Palms, Yau Mei San Tsuen and Wo Shang Wai to further north (Figure 1).

Further to the east across the said drainage channel are "Village" ("V") zone including Chuk Yuen Tsuen, Tai Yuen and Hang Fook Gardens and some open storage uses with areas occupied by cultivated agricultural land, vacant land and ponds.

The Town Planning Board has issued the "Town Planning Board Guidelines for Application for Developments within Deep Bay Area under Section 16 of the Town Planning Ordinance" ("TPB PG-No. 12B") under the Town Planning Ordinance (TPO) to guide the land uses and developments and to facilitate development applications within the Deep Bay area. There is a designation of Wetland Conservation Area (WCA) and Wetland Buffer Area (WBA) in the said guideline. Reference to Figure A of the "TPB PG-NO. 12B", part of the Project Site i.e. about 52% of the Project Site, falls within the WBA. Therefore the proposed development is subject to the TPB Guideline as mentioned above and should follow a "precautionary approach" and a principle of "no-net-loss of wetland" so as to conserve the ecological value of the wetland. According to the TPB Guideline, the WBA is considered as

HK1100189 1 $\in N \vee I R \bigcirc N$

target areas to allow an appropriate level of residential/recreational development as an incentive to restore some of the fish pond lost.

Apart from TPO, residential developments within Deep Bay Buffer Zone 1 or 2 are designated projects under the Environmental Impact Assessment Ordinance (EIAO). The Project falls into Deep Bay Buffer Zone 2 and is considered a designated project (Figure 1). The project proponent is required to assess and mitigate all possible adverse environmental impacts arising from the project following the Technical Memorandum of the Environmental Impact Assessment Process (EIAO-TM).

Alignment of the WBA under the "TPB PG-No. 12B" and the alignment of the Deep Bay Buffer Zone 2 under the EIAO are shown in Figure 1.

1.5 Scale of Project

The Project Site falls within the "REC" zone for landscape area with low-rise and low-density residential development occupying an area of about 91,000m², of which part of the site falls within the WBA.

According to the Notes of the Subject OZP, the Project Site is permitted to have a maximum plot ratio of 0.2 and a maximum building height of 2 storeys of 6m high for residential development.

1.6 The Type of Designated Project Covered in the Profile

The proposed residential development is a designated project (DP) under the Environmental Impact Assessment Ordinance (EIAO) (Cap. 499) under Item P.1, Part I, Schedule 2 of the EIAO by virtue of "A residential or recreational development, other than New Territories exempted houses, within Deep Bay Buffer Zone 1 or 2".

1.7 Contact Person

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

Mr. David Yeung, ENVIRON Hong Kong Limited, Tel. 37430788.

HK1100189 2 $\in N \vee I R \cap N$

2.0 Outline of Planning and Implementation Programme

2.1 Statutory Planning Policies

According to the Subject OZP dated 18 February 2005, the Project Site is zoned "REC" and no residential development (except "New Territories Exempted House") shall result in a total development in excess of a maximum plot ratio of 0.2 and a maximum building height of 2 storeys of 6m high. The Notes also stipulates that minor relaxation of plot ratio and building height restrictions may be permitted by the Town Planning Board subject to individual merits of a development or redevelopment proposal.

The planning intention of the "REC" zone is "primarily for recreational developments for the use of the general public. It encourages the development of active and/or passive recreation and tourism/eco-tourism. Uses in support of the recreational developments may be permitted subject to planning permission".

2.2 Non-Statutory Planning Polices

The TPB PG-No. 12B also set out non-statutory planning polices to provide development guidance and land use planning concept for the Deep Bay Area where the Project Site is situated. The following criteria in the said Guidelines are relevant to the Project Site:

- The "Precautionary approach" is to be adopted in development with an intention to protect and conserve the existing ecological functions of fish ponds in order to maintain the ecological integrity of the Deep Bay wetland ecosystem as a whole.
- "No-net-loss in wetland" principle is to be adopted in development for the conservation
 of continuous and adjoining fish ponds to ensure no decline in the wetland functions of
 the fish ponds within the development site.
- Within the WBA, for development or redevelopment which requires planning permission from the Board would need to be supported by an ecological impact assessment. Development or redevelopment which may have negative impacts on the ecological value of the WCA would not be supported by the Board, unless the ecological impact assessment can demonstrate that the negative impacts could be mitigated through positive measures and the development will not cause net increase in pollution load to Deep Bay.
- Development proposals to restore lost fish ponds or to replace existing undesirable uses by wetland habitats are encouraged.
- Residential development which could remove the existing open storage and port backup uses and/or proposals of detailed wetland restoration within the WBA may be given special consideration subject to satisfactory ecological and other impact assessments.
- Residential development projects should be compatible with the surrounding land uses and the rural setting of the area.

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2.3 Project Time Table

The construction work is expected to commence in 2012 and to complete for occupation in 2015/16.

2.4 Project Interface

Major project committed that the Project needs to interface with:

Yuen Long and Kam Tin Sewerage and Sewage Disposal

- Responsible party: Drainage Services Department
- The EIA report (EIAO register number: AEIAR-78/2004) was approved without condition by EPD on 17 Jun 2004
- The project is tentatively scheduled to commence in mid 2009 and complete in 2013.

Construction of Cycle Tracks and the associated supporting facilities from Sha Po Tsuen to Shek Sheung River

- Responsible party: Civil and Engineering Development Department
- The EIA report (EIAO register number: AEIAR-133/2009) was approved without condition by EPD on 13 March 2009.
- The project is scheduled to commence construction in mid 2009 and complete by 2012.

HK1100189 4 \in N V I R O N

3.0 Existing and Planned Sensitive Receivers

Sensitive receivers in the vicinity of the Project are mainly residential uses such as Chuk Yuen Tsuen, Man Yuen Chuen, Yau Mei San Tsuen, Palm Springs, Royal Palms, and Fairview Park. Current Outline Zoning Plan (No. S/YL-MP/6) of the surrounding environment of the Project site is shown in Figure 2 for reference.

In terms of landscape and visual concerns, sensitive receivers may include the landscape resources within the Project site itself and the landscape character of the area in addition to the visually sensitive receivers identified in the above paragraph.

Other elements of the surrounding environment to be considered include nearby roads such as Fairview Park Road, Yau Pok Road, Kam Pok Road and the associated drainage channel.

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4.0 Possible Impact on the Environment

4.1 Air Quality

4.1.1 Construction Phase Impact

Construction dust would be generated from the construction activities such as material handling, excavation, vehicle movement and erosion of unpaved areas. Site formation works and subsequent construction works may also have the potential to pose adverse air quality impacts to nearby villages. The impact should be short term and would be largely mitigated by good site practice through the implementation of construction clause.

4.1.2 Operational Phase Impact

Air quality impact may arise from the traffic emissions due to the road network in the vicinity of the Project site. Considering that the scale of the development is small, impact of increased vehicle movement caused by the Project on the environment would not be unacceptable due to the low traffic volume. The impact of major roads on the Project will be assessed in the EIA stage.

Other potential air pollution sources such as chimney emissions associated with nearby industrial premises and the odour from drainage channel will be observed and investigated.

4.2 Noise

4.2.1 Construction Phase Impact

The use of powered mechanical plant and equipment during construction is the major source of noise. Such impact would occur when powered mechanical equipment is used during a certain period of the construction phase. Therefore the impact is short term and would be mitigated by the implementation of effective control measures.

4.2.2 Operational Phase Impact

Noise impact may arise from the traffic emissions due to the surrounding road networks during the operational phase. Representative Noise Sensitive Receivers are selected to represent both existing and future land uses worst affected by the occupation of the proposed development. Fixed noise sources such as industrial premises and nearby pumping station will also be observed.

4.3 Water Quality

4.3.1 Construction Phase Impact

Site runoff during the construction phase is expected to cause water quality impact. The adverse impact may comprise additional runoff, increase of suspended solids, pH value and

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turbidity levels, spillage of waste oils and generation of sewage. Good site management should be implemented and enforced to keep the water quality impact to a minimal.

4.3.2 Operational Phase Impact

Municipal wastewater is expected to generate from the residential use of the Project. The volume of wastewater shall be estimated based on the development parameters with the impact on Deep Bay shall be assessed.

A trunk sewer under Yuen Long and Kam Tin Sewerage and Sewage Disposal Project proposed by Drainage Services Department (DSD) is expected to complete in 2013 and serve a catchment that covers Project Site.

4.4 Waste Management

4.4.1 Construction Phase Impact

The volume of construction waste is expected to be insignificant as the materials on site will be reused and recycle as far as engineering practicable.

The waste produced, if any, will largely consist of excavated and demolished construction materials during the site formation stage. Other waste may include chemical waste and general refuse. The volume of waste to be generated will be quantified based on the proposed construction programme in the EIA stage.

4.4.2 Operational Phase Impact

The proposed residential use of the Project would general a small amount of municipal waste during its operation. The impact is insignificant with the proper management procedures to be implemented.

4.5 Ecology

4.5.1 Construction Phase Impact

The construction works might cause disturbance to wildlife and vegetation directly and indirectly. Baseline ecological surveys covering a period of no less than 12 consecutive months including both wet and dry seasons are being conducted to ascertain the habitat quality, species and other ecological properties of the site in order to assess the extent of impacts and take into account in mitigation evaluation. With appropriate site planning and control measures, the ecological impact would be kept at a minimal level.

4.5.2 Operational Phase Impact

The long term ecological impact on vegetation and wildlife in the area will be evaluated based on the results of the baseline surveys, which shall be completed in mid-2009.

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"Precautionary approach" will be adopted in development with an intention to protect and conserve the existing ecological functions of fish ponds in order to maintain the ecological integrity of the Deep Bay wetland ecosystem as a whole. "No-net-loss in wetland" principle is to be adopted in development for the conservation of continuous and adjoining fish ponds to ensure no decline in the wetland functions of the fish ponds within the development site.

Residential development portion should be compatible with the surrounding land uses and the rural setting of the area.

4.6 Cultural Heritage

Potential impacts arising from construction works may due to damage or loss of buried archaeological remains and deposits, culturally significant features and changes to the historic landscape. There may also be ground compaction and disturbance through excavation that cause impact to cultural resources. A heritage impact assessment will be carried out during the EIA stage. Heritage sites will be identified and avoided as far as practicable to avoid the impacts due to the development and its construction.

4.7 Land Contamination

4.7.1 Construction Phase Impact

The Project Site was abandoned farmland and had not been used for open storage nor workshop in the past years, and the potential impact due to land contamination is not expected.

4.7.2 Operational Phase Impact

The Project Site is proposed for residential and wetland protection. No adverse impact is expected from the operational phase of the Project.

4.8 Landscape and Visual

4.8.1 Construction Phase Impact

Temporary landscape and visual impacts during the construction phase will arise from disturbance to the existing landscape of the site, from construction works and plant, and from the presence of temporary structures such as false work for structural elements.

4.8.2 Operational Phase Impact

Permanent landscape and visual impacts during the operational phase are less likely due to the poor visual amenity and somewhat degraded landscape character of the site at present. Sources of permanent adverse landscape and visual impact might be caused by low rise residential units and associated buildings (e.g. club house). The restoration/ creation of wetland is likely to represent a source of positive landscape and visual impact in the longer term.

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5.0 Potential Measures to Minimise Environmental Impacts

During the EIA stage, detailed investigation on the environmental impacts will be studied. Appropriate mitigation measures will be proposed so that the identified impacts will be avoided and minimized to acceptable levels. To monitor the environmental condition of the site, environmental monitoring and auditing of potential impacts will be performed during the construction and operational phases. The following are mitigation measures that will be incorporated in the design and construction of the Project. They will be elaborated after further assessment is complete.

5.1 Air Quality

5.1.1 Construction Phase

The contractor of the Project shall be required to follow the requirements of the Air Pollution Control Ordinance. Good site management and practices and dust control measures including but not limit to frequent mist spraying, vehicle speed control and stockpile covering will be implemented to control the construction dust impact on sensitive receivers.

5.1.2 Operational Phase

Air quality impact during operation phase is expected to be at acceptable level. The details and extent of air quality mitigation measures will be dependent on the EIA results.

5.2 Noise

5.2.1 Construction Phase

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

5.2.2 Operational Phase

Noise impact during operation phase will be investigated. The details and extent of noise mitigation measures will be dependent on the EIA results.

In general, road traffic noise can be managed by a number of noise mitigation designs such as traffic management measures, environmentally friendly layout design and where necessary, the use of noise barriers.

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5.3 Water Quality

5.3.1 Construction Phase

The contractor of the Project shall be required to follow the Practice Note for Professional persons on Construction Site Drainage (ProPECC PN 1/94) when implementing water quality control measures. Site runoff and wastewater will be properly contained and handled before disposal.

5.4 Construction Waste

5.4.1 Construction Phase

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

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

5.5 Ecology

5.5.1 Construction Phase

Appropriate control measures will be designed to cater for the species to be identified in the ecological survey. In general, commonly used measures include the use of temporary barriers to minimize the disturbance to be expected from the construction activities and proper scheduling of construction programme to avoid the peak period of migratory birds. Environmental parameters and monitoring of target sensitive species, if any, will be measured and conducted during the construction phase to evaluate any adverse impacts. Monitoring of target species, if any, will be carried out to identify any reduction of their abundance and diversity during the construction phase.

If there is unavoidable habitat loss due to the development, compensation will be provided with consideration of the surrounding habitat environment to ensure the least disturbance to ecological resources.

The surface water level and water chemistry (e.g. salinity, pH, BOD, dissolved oxygen and ammonia concentration) of the protected area will be measured in the construction phase.

5.5.2 Operational Phase

The buffering design/element between the built-up area and the adjacent wetland will be maintained and managed so as to reduce the disturbance. Best practice in the management and maintenance of the residential area will be implemented to protect the wetland habitats (or indeed fauna and flora in other habitats). Run-off from the residential

HK1100189 10 \in N V I R O N

site will be captured and directed from the wetland to prevent contamination by pollutants are in place. The details and extent of ecological impact mitigation measures will be addressed in the EIA stage after the ecological survey is completed. Regular monitoring of the target species, if any, will be continued during the operational phase to evaluate the utilisation level of the restored wetlands after the construction.

Pond sediments, water quality parameters (e.g. temperature, pH, salinity, turbidity and dissolved oxygen) and water samples of the restored wetlands as part of the Environmental Monitoring and Auditing Programme will be monitored to ensure the habitats are properly maintained.

5.6 Cultural Heritage

Detailed research will be carried out to identify documented cultural and heritage sites in the vicinity of the Project Site. Any potential impacts would be avoided as far as practicable. If there is any direct impact, mitigation measures including rescue excavation prior to the commencement of construction work and archaeological monitoring during construction to preserve deposits by record.

5.7 Land Contamination

Land contamination is not anticipated on the Project Site. In the event that there is any potential exposure to contaminated materials, workers should wear protective clothing. Contaminated materials should be removed and appropriate disposal should be arranged. Such materials should also be properly covered before they are transported away from the construction site.

5.8 Landscape and Visual

5.8.1 Construction Phase

Landscape and visual impacts during the construction activities can be mitigated by considering the following:

Optimal Site Layout - A number of alterative layouts will be considered to ensure that the landscape and visual impacts associated with the proposed development are minimised.

Retention of Valuable Landscape Resources on Site: - valuable landscape resources found on site (including trees, topsoil, pond bund material, etc) will be retained where possible for reuse in the works.

Good Construction Practice – Landscape and visual impacts during construction will be minimised by regulation of working hours, minimisation of the duration of the works; minimising export of material off-site, etc.

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.

HK1100189 11 $\in N \vee I R \cap N$

Tree Transplanting - Any trees identified as affected by the proposed development will be considered for transplanting to other areas within the 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 (a minimum of 3 months) should be allowed to prepare trees for transplantation.

The landscape and visual character may also be incorporated in the design of the buildings to be constructed. Site inspections are recommended throughout the construction phase. The mitigation measures should be included in the contract clauses for the proposed development. The implementation of the measures should be audited as part of the EM&A procedures during the construction phase.

5.8.2 Operational Phase

Landscape and visual mitigation measures may include the following:

Compensatory Amenity and Wetland Landscape – the creation of water bodies as well as the planting of amenity and habitat landscapes will act as mitigation for any loss of vegetation currently on site.

Screen Planting - Planting of dense belts of trees at the periphery of the site will assist in screening visual impacts from surrounding VSRs.

Aesthetic Treatment of Buildings – Sensitive architectural and chromatic treatment of residential buildings will assist in reducing their visual impact.

Further details and extent of landscape and visual impact mitigation measures will be addressed in the EIA stage. Landscape and visual mitigation measures should be incorporated at an early stage of the design process.

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6.0 Use of Previously Approved EIA Reports

Construction of Cycle Tracks and the associated supporting facilities from Sha Po Tsuen to Shek Sheung River. (EIAO register number : AEIAR-133/2009).

Yuen Long and Kam Tin Sewerage and Sewage Disposal Stage 2 (EIAO register number: AEIAR-78/2004).

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Figures



