

**Construction of Cycle Tracks and the
Associated Supporting Facilities
From Sha Po Tsuen to Shek Sheung River**

Environmental Impact Assessment

Executive Summary

ATKINS

In association with

ADI Limited

Oikos Consulting Limited

Hong Kong Institute of Archaeology

Client:	Civil Engineering and Development Department	Contract No. (if any): Agreement No.: NTN 5/06
Project Title:	Construction of Cycle Tracks and the Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung River – Environmental Impact Assessment	Project No.: 4082
Document No.:	4082-OR037-01	Controlled Copy No.:
Document Title:	Executive Summary (English and Chinese)	
Covering Letter/Transmittal Ref. No.:	4082/OG092/EIt17552/SB/ww	Date of Issue: 24 December 2008

Revision, Review and Approval Records

		/	/	/
		/	/	/
		/	/	/
01	Executive Summary (English and Chinese)	Various/ 24 December 2008	Wing Wong/ 24 December 2008	Susana Bezy/ 24 December 2008
Revision	Description	Prepared by / date	Reviewed by / date	Approved by / date

Distribution (if insufficient space, please use separate paper)

Controlled Copy No.	Issued to
01-13	EPD
14-23	ACE
24-28	CEDD
29	SWL
30	ACL

Table of Contents

1.	INTRODUCTION	1
1.1	Background	1
1.2	Project Description	1
2.	KEY FINDINGS OF ENVIRONMENTAL IMPACT ASSESSMENT	1
2.1	General	1
2.2	Air Quality	2
2.3	Noise	2
2.4	Water Quality	2
2.5	Waste Management	2
2.6	Land Contamination	3
2.7	Ecology & Fisheries	3
2.8	Cultural Heritage	4
2.9	Landscape and Visual	4
3.	ENVIRONMENTAL MONITORING AND AUDIT	4
4.	OVERALL CONCLUSION	5

Figure 1-1 Proposed Cycle Track Alignment & Supporting Facilities

1. INTRODUCTION

1.1 Background

- 1.1.1 This Project is known as “Construction of Cycle Tracks and the Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung River”.
- 1.1.2 The Project involves construction of a cycle track to connect the existing cycle track networks at Yuen Long and Sheung Shui, together with supporting facilities.
- 1.1.3 The Project falls under DP items P.1 and Q.1 of Part I, Schedule 2 of the EIAO.
- 1.1.4 An Environmental Impact Assessment (EIA) has been undertaken to provide information on the nature and extent of environmental impacts arising from the construction and operation of the Project and to contribute to decisions on the overall environmental acceptability of the Project.
- 1.1.5 The EIA provided a detailed assessment of the potential environmental impacts associated with the construction and operation of the Project, including air quality, noise, water quality, waste management, land contamination, ecology, fisheries, cultural heritage, landscape and visual resources, and recommendations for mitigation measures to comply with environmental legislations and standards. This Executive Summary provides a summary of the key findings of the EIA study.

1.2 Project Description

- 1.2.1 The proposed cycle track alignment is shown on **Figure 1-1** and comprises the following major works elements:
1. Construction of a new cycle track section (with footpath) linking up local cycle track networks in Yuen Long and Sheung Shui.
 2. Construction of the associated supporting facilities which include 5 Resting Stations - R5, R6, R7, R8, and R9, and 1 Information Kiosk integrated into R9. Also, one small seating area consisting of two benches at Mai Po Village.
 3. The associated streetscape, landscape, utilities diversions, traffic aids installation, street lighting, water, sewerage and drainage works, and footpath;
 4. Provision of environmental mitigation measures.
- 1.2.2 Based on the preliminary programme, the construction is scheduled to commence in mid 2009 for completion by early 2012.

2. KEY FINDINGS OF ENVIRONMENTAL IMPACT ASSESSMENT

2.1 General

- 2.1.1 The potential environmental impacts associated with the construction and operation of the Project are summarised in the following sections.

2.2 Air Quality

- 2.2.1 Fugitive dust emissions from site clearance, excavation and material stockpiling /handling are the major sources of air pollution during the construction phase of the Project. Through proper implementation of dust control measures as required under the *Air Pollution Control (Construction Dust) Regulation*, construction dust can be controlled at source to acceptable levels. Hence, no unacceptable impacts are anticipated.
- 2.2.2 During the operational phase, the project itself is not a source of air pollution. No adverse air quality impacts are expected to occur at the Information Kiosk and Resting Stations which are air sensitive receivers. Thus, no mitigation measures are required.

2.3 Noise

- 2.3.1 The use of powered mechanical equipment (PME) for various construction activities will be the primary noise source during the construction phase of the Project. In the absence of any control measures, construction noise levels exceeding the EIAO-TM noise assessment criteria would be expected at a number of noise sensitive receivers (NSRs) due to their close proximity to the works areas.
- 2.3.2 With the adoption of combined use of quiet plants, movable noise barrier / enclosure and careful management of works, the noise standards at all NSRs could be met.
- 2.3.3 Monitoring of the construction noise is recommended to ensure proper implementation of the mitigation measures, and to minimize the noise level as far as practicable.
- 2.3.4 No operational noise impact is expected to arise from the Project. No specific noise mitigation measures are required.

2.4 Water Quality

- 2.4.1 The Project will be land-based only with minor excavation and re-surfacing works. Water quality impacts from the construction works can be controlled to acceptable levels by implementing the recommended mitigation measures. No adverse water quality impacts are anticipated. Site inspections shall be undertaken routinely to inspect the works areas in order to ensure the recommended mitigation measures are properly implemented.
- 2.4.2 No adverse water quality impacts are expected during the operation phase of the Project.

2.5 Waste Management

- 2.5.1 Wastes generated by the construction activities will include construction and demolition (C&D) materials from the construction works, general refuse from the workforce and chemical waste from any maintenance of construction plant and equipment. Provided that the waste management practices are strictly followed, no adverse impacts to the environment associated with waste generated by the

construction phase of the Project are anticipated.

- 2.5.2 Recommendations have been provided during operation of the Project. These include waste collection facilities (e.g. litter bins) to be included in the design of the supporting facilities, and at regular intervals along the route, and with regular collection and disposal of litter from these facilities. No adverse waste management issues are expected to arise during the operation phase of the Project.

2.6 Land Contamination

- 2.6.1 The potential land contamination impacts in the Study Area have been examined. Based on the findings from the desktop studies and site inspection, six potential areas have been proposed for further site investigation prior to commencement of Project works. Based on the available information, the potential of land contamination impact is considered surmountable.
- 2.6.2 It is recommended that land contamination assessment be conducted at the identified areas prior to the commencement of site clearance / construction works. During the construction phase, mitigation measures should be implemented in order to minimize the potential health impact on the construction workers.

2.7 Ecology & Fisheries

- 2.7.1 Potential impacts of the proposed cycle track and its associated supporting facilities on the ecology and fisheries within the Study Area has been addressed.
- 2.7.2 The proposed cycle track will result in no permanent habitat loss to ecologically valuable habitats in the Wetland Conservation Area (WCA). The assessment revealed there will be no direct impact to the winter bird use of the Kam Tin River and Long Valley Rivers. Construction of these sections of the cycle track is recommended to be carried out during the dry season (October to March) to avoid noise and disturbances associated with construction works to wintering birds.
- 2.7.3 A permanent loss of 6.57 ha of developed area and wasteland, along with 0.18 ha nullahs, 0.07 ha of seasonal marsh at Hip Shing Wai, and 1.13 ha plantation (of which approximately 0.78 ha consists of mitigation planting along the Sheung Yue and Shek Sheung River) was predicted due to construction of the cycle track. Compensation planting and transplantation will be implemented where appropriate, in particular along the Sheung Yue River and Shek Sheung River to restore its original mitigation function.
- 2.7.4 Generally the habitats that will be lost as a result of the cycle track are of low ecological value for the length of the route as it follows existing roads, drainage channels and occasionally footpaths through developed areas of the North West New Territories.
- 2.7.5 With the implementation of appropriate mitigation measures, in particular to timing issues during the construction phase close to sensitive receivers, and adoption of good work practices, it is considered that this Project can be completed with minimal impacts to the local ecology along the route of the cycle track.
- 2.7.6 There will be no loss of fishponds. For those construction works in proximity to

fishponds, good site practice following appropriate guidelines and mitigation measures should be employed by the construction workers. No negative impacts to any fishponds or fisheries operations either in the construction or operational phases of this Project are envisaged.

2.8 Cultural Heritage

2.8.1 The assessment area has been determined to contain no archaeological sites or areas of archaeological potential. The impact assessment showed that there would be no adverse impacts to any of the recorded built heritage features or declared monuments. Therefore, no specific mitigation measures would be required. As a precautionary measure, it is recommended that care should be taken during the construction stage to report any signs of possible discovery of artefacts.

2.9 Landscape and Visual

2.9.1 A landscape and visual impact assessment has been carried out. A preliminary tree survey was undertaken, and the existing Landscape Resources (LRs), Landscape Character Areas (LCAs), and Visual Amenity and Visually Sensitive Receivers (VSR) have been identified and assessed against the proposed cycle track.

2.9.2 Based on preliminary tree survey, approximately 1,626 trees will be affected by the construction of the cycle tracks Project. None of these are Leisure and Cultural Services Department Champion Trees or Registered Old and Valuable Trees. There are no rare species or endangered species but common species. All the trees with high amenity value which are unavoidably affected by the works will be transplanted where possible. Detailed tree preservation, transplanting and felling including compensatory planting proposals will be submitted to relevant government departments for approval in accordance with ETWB TCW No. 3/2006.

2.9.3 Planting proposal will be fully implemented. The planting proposal would benefit the existing landscape context that is largely composed of major road and highways, settlements and open storages. The quality of majority LCA within the Study Area would be benefitted by the improvement of roadside areas with new planting proposals associated with the proposed works, making existing infrastructure and riverside corridors better integrated with the rural landscape context.

2.9.4 The visual quality of majority visual sensitive receivers (VSRs) living in village settlements within the Study Area largely remains unchanged or eventually benefitted by integrating the design of the cycle track with existing road, footpath and built structures, additional screen planting at the interface between village settlements and infrastructure and applying an environmental responsive design of associated facilities. Visual impacts on the visual quality of travelling VSRs along the riverbank of Kam Tin River, Ngau Tam Mei Drainage Channel, Sheung Yue River, Shek Sheung River would be mitigated to slight adverse regarding their proximity location to the proposed works.

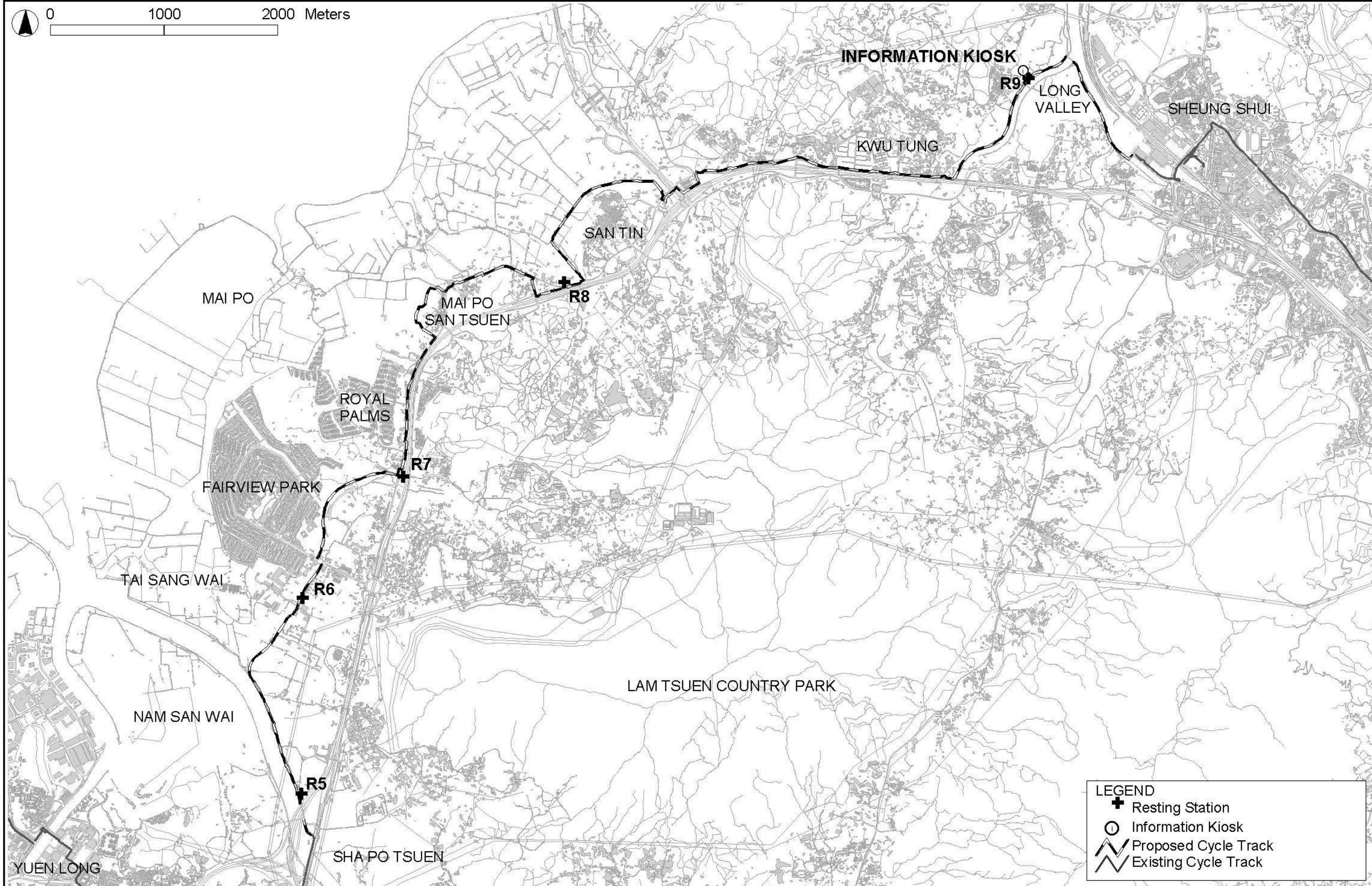
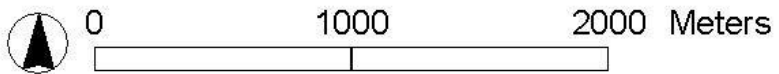
3. ENVIRONMENTAL MONITORING AND AUDIT

3.1.1 An environmental monitoring and audit programme will be implemented for the Project during the construction phase, to check effectiveness of the recommended mitigation measures and compliance with relevant statutory criteria.

4. OVERALL CONCLUSION

- 4.1.1 The findings of this EIA have provided information on the nature and extent of environmental impacts arising from the construction and operation of Cycle Tracks and the Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung River. The EIA Study has predicted that the Project, after the adoption of appropriate mitigation measures, would comply with all environmental legislation and standards, with no adverse residual impacts. An environmental monitoring and audit programme has been recommended to monitor the implementation of the mitigation measures and to ensure compliance with environmental standards.

Figure



LEGEND

- Resting Station
- Information Kiosk
- Proposed Cycle Track
- Existing Cycle Track