



**The Government of the Hong Kong Special Administrative Region**

**Civil Engineering and Development Department**

**Dredging at Seabed of Peng Chau, Tung Wan  
Project Profile**

*January 2007*

**Dredging at Seabed of Peng Chau, Tung Wan  
Project Profile**

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**1. Basic Information**

**1.1 Project Title**

Dredging at seabed of Peng Chau, Tung Wan

**1.2 Purpose and Nature of the Project**

The purpose of the project is to remove the high spots at seabed to the north of Tung Wan, Peng Chau in response to a public complaint for sake of public safety.

**1.3 Name of Project Proponent**

Housing, Planning and Lands Bureau is the project proponent. Civil Engineering and Development Department (CEDD) is the works agent for the planning and implementation of the project.

**1.4 Location of Project, Scale of Project and History of Site**

The site is located at the north of Tung Wan, Peng Chau. Location plan for the project is presented at Appendix A. Site area is about 5,000m<sup>2</sup> and the total amount of sediment to be removed by grab dredging in the project is approximately 2,000m<sup>3</sup>. There is no work being carried out within the site.

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

The Project comprising dredging operation which is less than 500 m from the nearest boundary of coastal protection area is classified as a designated project under Section C.12 of Schedule 2, Environmental Impact Assessment (EIA) Ordinance. Only one designated project is involved.

**1.6 Name and Telephone Number of Contact Persons**

Port Works Division, Civil Engineering and Development Department

Mr. K Y SHIN, Senior Engineer	Tel: 2762 5554
	Fax: 2714 2054
	Email: kyshin@cedd.gov.hk

Mr. C P CHOI, Engineer	Tel: 2762 5528
	Fax: 2714 2054
	Email: cpchoi@cedd.gov.hk

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**1.7 Estimated Cost**

\$ 1.03 million (at December 2006 price level).

**2. Outline of Planning and Implementation Programme**

- 2.1 The planning and implementation of the project will be carried out by CEDD.
- 2.2 The dredging works is scheduled to commence in late March 2007 and for completion in May 2007.

**3. Major Impacts on the Environment**

Sensitive receivers which are located within 500m of the site are shown in Appendix B. They include:-

3.1 Coastal protection areas

Coastal protection areas, which comprise flat rock area and other visually important landscape features is located at a distance of about 50m from the nearest boundary of the proposed site. However, no impact on the coastal protection areas is anticipated as there is only to remove the high spots from the seabed.

3.2 Residential Buildings/School

The nearest residential building and school, located at a distance of 130m and 200m respectively from the nearest boundary of the proposed site, is likely to be sensitive to air quality and noise.

**4. Construction Method**

Dredging will be carried out to remove the high spots at seabed in approximately 0.5~0.8m high which mainly consists of rubble to be disposed off site. The details are as follows:

Dredging method	: by grab dredging
Dredging plant	: 1 derrick lighter and 1 backhoe
Maximum dredging rate	: 100m <sup>3</sup> /day

## **5. Possible Impacts on the Environment**

In view of the nature and scale of the project is small, it is expected that the impacts on the environment during the construction period is minimal. Details are as follows:

### 5.1 Water Quality

As the Project is only to remove the high spots at seabed, the disturbance to the seabed will be minimal and turbidity of water will not be increased significantly. In addition, due to the slow dredging rate, it is expected that the impact to water quality is minimal.

### 5.2 Noise Impact

In view of the shallow water in the vicinity, works will normally be confined to daytime only during high tide session in winter. In addition, due to the small scale of works, the process will not generate significant noise problem.

### 5.3 Air Quality

As there is only dredging work to be involved, the dust emission from the site is not expected. However, the emitted gas from the plant is expected to be minimal since the number of plant on site is small.

### 5.4 Odour

As there is only small amount of sediment to be dredged everyday, no odour problem is expected.

### 5.5 Fisheries

No fish culture zone is identified in the vicinity.

### 5.6 Visual Appearance

As the dredging to be involved, the visual appearance of the area will not be affected.

### 5.7 Cultural Heritage

In view of the shallow water in the vicinity and the Project is only to remove the high spots at seabed, no marine archaeological antiquities are expected within the site. If any antiquities are discovered in the course of the construction works, LCSD will be informed promptly.

5.8 Other Residual Impacts

No other operational and decommissioning impacts are identified.

**6. Environmental Protection Measures to be Incorporated in the Design and Any Further Environmental Implications**

6.1 Measures to Minimize Environmental Impacts

6.1.1 Water Quality

It is expected that there will be no appreciate impact on water quality during dredging. However, to further safeguard the surrounding water, it is proposed to erect the silt curtain at grab. The curtain will be in the form of permeable, tough, abrasion resistant membrane like geotextiles which will be mounted on a float boom structure surrounding the grab. Details of silt curtain at grab are shown in Appendix C.

6.1.2 Noise

Although the nearest receiver is close to the site, the anticipated noise level is very low since the dredging will not arouse substantial noise. To further minimize the nuisance, no work will be allowed to be carried out at night times and during Sundays and public holidays.

6.2 Possible Severity, Distribution and Duration of Environmental Effects

In view of the small dredging volume and that the dredging will be completed within 2 months, any environmental impacts which may be caused by the Project should be short-termed, localized and minimal.

6.3 Public Consultation

Island District Council (IDC) was consulted in August 2005. The IDC supported the project in principle.

6.4 History of Similar Project

No similar project is found.

## **7. Use of Previously Approved EIA Reports**

As there has been no designated project undertaken in the vicinity, no previously approved EIA report can be used.

## **8. Conclusion**

- (1) Environmental impacts mainly water quality, noise and air quality arising from the project are minimal.
- (2) The following mitigation measures will be incorporated into the project:
  - (i) use of quieter machinery, conducting the works on daytime and no works during Sundays or general holidays;
  - (ii) installation of a silt curtain at grab;
  - (iii) prohibition of overloading of working barges; and
  - (iv) avoidance of movement of barges during low tide.
- (3) As the environmental impact arising from the project will not be adverse, direct application for an environmental permit under EIA Ordinance will be adopted.



**Dredging at Seabed of Peng Chau, Tung Wan  
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**Appendix A**

Figure PW-SK07-001

- General Layout

822 000E



疏浚區的座標 CO-ORDINATES OF DREDGING AREA		
點 POINTS	北緯 (米) NORTHING (m)	東經 (米) EASTING (m)
A	816 490	822 252
B	816 464	822 328
C	816 403	822 324
D	816 406	822 283
E	816 469	822 233

817 000N

大洲島  
Tai Lei Island



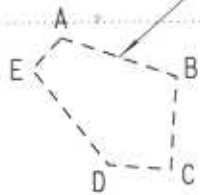
位置圖 Key Plan

比例 Scale 1 : 25 000

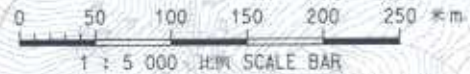
坪洲  
PENG CHAU

816 500N

擬議的疏浚區  
Proposed dredging area



東灣  
TUNG WAN



1 : 5 000 比例 SCALE BAR

816 000N

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no. 編號	date 日期	description 說明	checked 核對	approved 核准

title 名稱  
坪洲, 東灣海床疏浚工程  
- 總平面圖  
DREDGING AT SEABED OF  
PENG CHAU, TUNG WAN  
- GENERAL LAYOUT

	name 姓名	initial 簡簽	date 日期
designed 設計	C P CHOI	CP	08.01.2007
drawn 繪畫	K L WONG	KL	08.01.2007
checked 核對	K Y SHIN	KY	08.01.2007
approved 核准	W L LAU	WL	08.01.2007

drawing no. 圖則編號  
PW-SK07-001  
scale 比例  
1:5000

office  
PORT WORKS DIVISION 海港工程處  
CIVIL ENGINEERING OFFICE 土木工程處



PROJECT: s:\site\resources\penc\_ghd.dwg

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Project Profile**

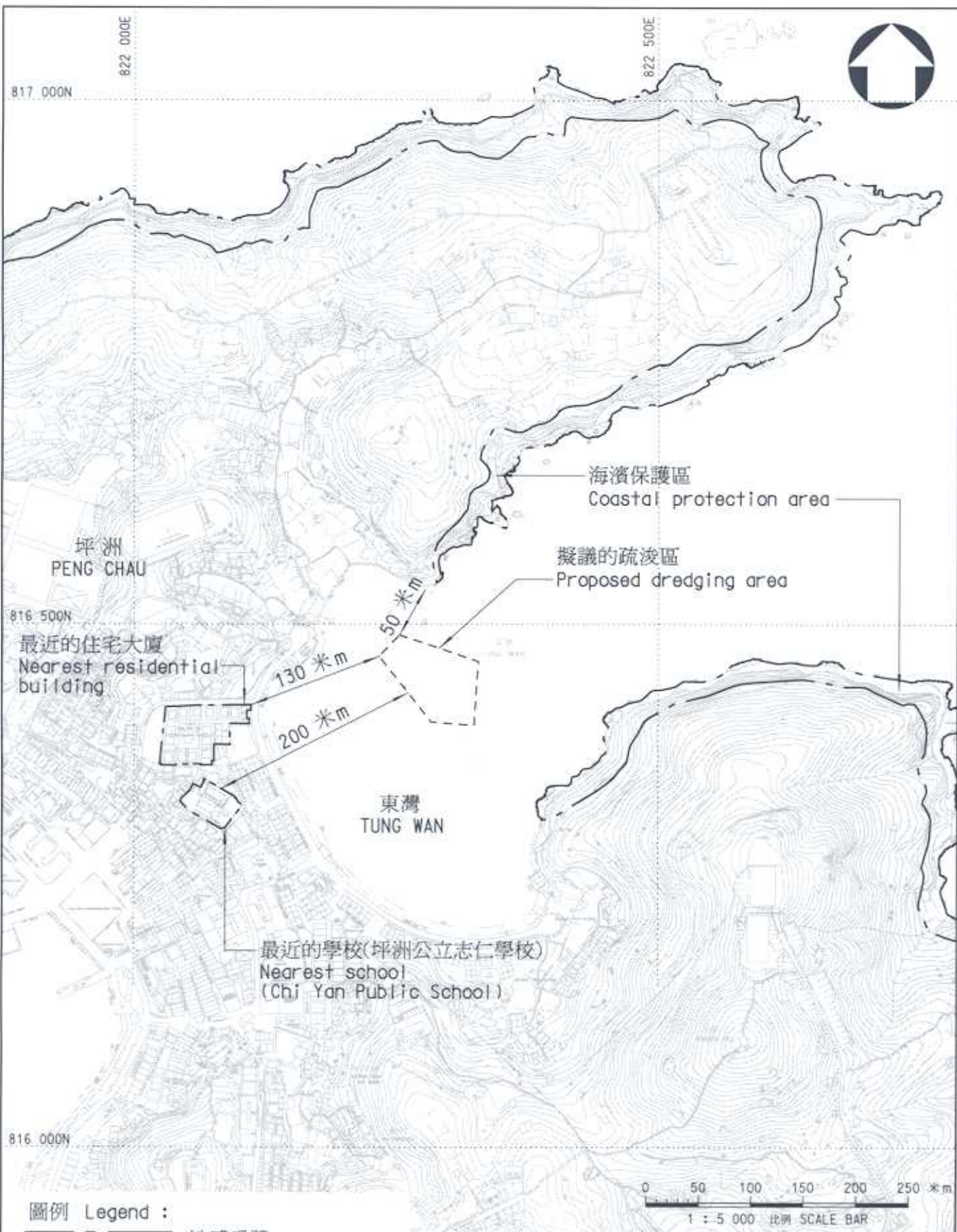
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**Appendix B**

Figure PW-SK07-002

- Location of Sensitive Receivers





圖例 Legend :

敏感受體  
Sensitive receivers

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no. 編號	date 日期	description 說明	checked 核對	approved 核准

title 名稱  
坪洲, 東灣海床疏浚工程  
- 敏感受體位置圖  
DREDGING AT SEABED OF  
PENG CHAU, TUNG WAN  
- LOCATION OF  
SENSITIVE RECEIVERS

	name 姓名	initial 簡簽	date 日期
designed 設計	C P CHOI	<i>CP</i>	08.01.2007
drawn 繪畫	K L WONG	<i>KL</i>	08.01.2007
checked 核對	K Y SHIN	<i>KS</i>	08.01.2007
approved 核准	W L LAU	<i>WL</i>	08.01.2007
office	PORT WORKS DIVISION 海港工程處 CIVIL ENGINEERING OFFICE 土木工程處		

drawing no. 圖則編號	scale 比例
PW-SK07-002	1:5000
 <b>CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT</b> 土木工程拓展署	

DRAWING NO. PW-SK07-002

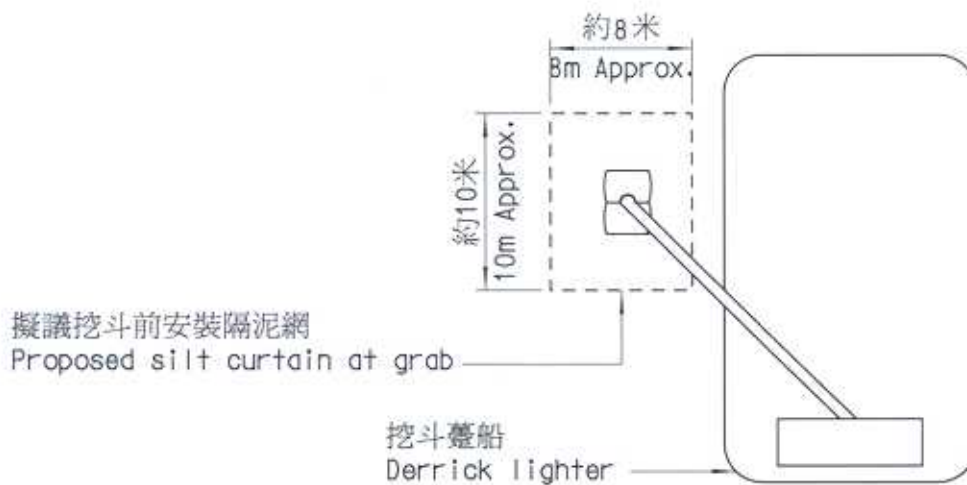
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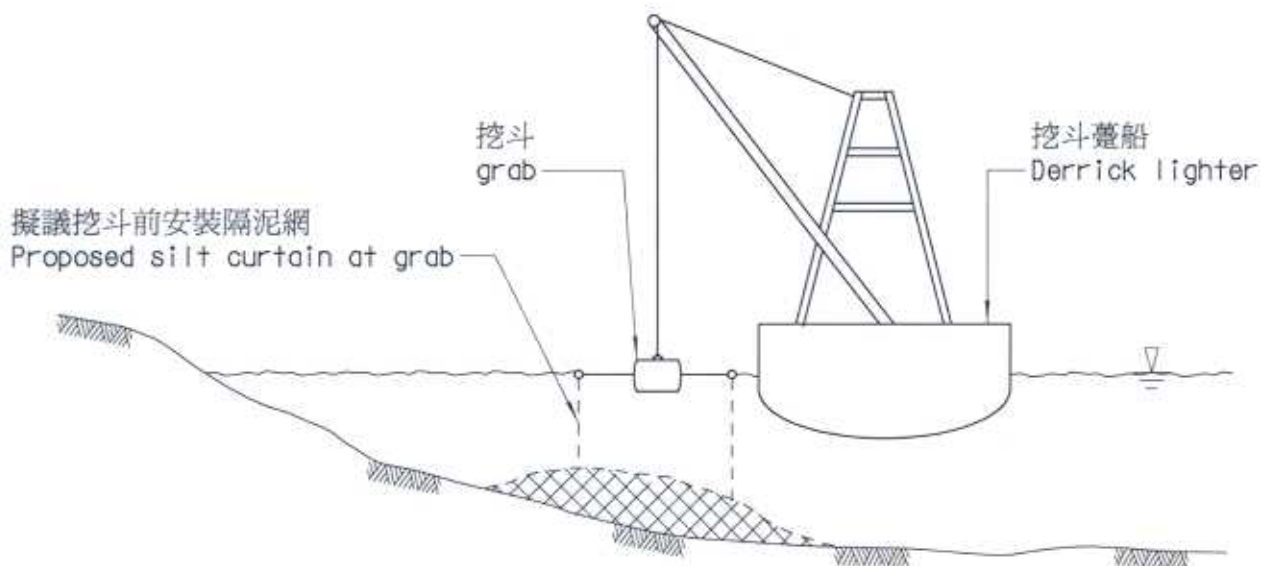
**Appendix C**

Figure PW-SK07-003

– Proposed Silt Curtain at Grab



Plan 平面圖



Elevation 側面圖

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no. 編號	date 日期	description 說明	checked 核對	approved 核准

title 名稱  
坪洲, 東灣海床疏浚工程  
- 擬議挖斗前安裝隔泥網  
DREDGING AT SEABED OF  
PENG CHAU, TUNG WAN  
- PROPOSED SILT  
CURTAIN AT GRAB

	name 姓名	initial 簡簽	date 日期
designed 設計	C P CHOI	<i>CP</i>	08.01.2007
drawn 繪畫	K L WONG	<i>KL</i>	08.01.2007
checked 核對	K Y SHIN	<i>KY</i>	08.01.2007
approved 核准	W L LAU	<i>WL</i>	08.01.2007

drawing no. 圖則編號	scale 比例
PW-SK07-003	N.T.S.

office  
PORT WORKS DIVISION 海港工程處  
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