

**For Discussion  
On 20 March 2002**

**Legislative Council Panel on Economic Services**

**Reconstruction of Public Piers at  
Kat O Chau, Peng Chau, Cheung Chau and Wu Kai Sha**

**PURPOSE**

This paper briefs Members of our proposal to reconstruct the public piers at Kat O Chau, Peng Chau, Cheung Chau and Wu Kai Sha.

**PROPOSAL**

2. We propose to carry out the following works for the public piers at Kat O Chau, Peng Chau, Cheung Chau and Wu Kai Sha under the reconstruction project-

- (a) Demolition of four existing piers;
- (b) Construction of four replacement piers; and
- (c) Construction of four roof covers with associated lighting for the four new piers.

3. The site and layout plans of the four piers are at **Enclosures 1 to 4** respectively.

**BACKGROUND AND JUSTIFICATIONS**

4. The existing public piers at Kat O Chau, Peng Chau, Cheung Chau and Wu Kai Sha were built in the 1950s and are currently maintained by Civil Engineering Department (CED). Details of the berthing facilities provided by the four piers are tabulated below-

<b>Location of the public pier</b>	<b>Berthing facilities</b>
Kat O Chau	For regular "kaito" services between Sha Tau Kok and Kat O Chau
Peng Chau	For regular "licensed ferry" services between Peng Chau and Hei Ling Chau, and "kaito" services between Peng Chau and Discovery Bay
Cheung Chau	For regular "kaito" services between Cheung Chau and Sai Wan
Wu Kai Sha	For local fishermen and government vessels

5. During the inspections of the piers in the past few years, CED found that all of the four piers are in poor condition. They are deteriorating with widespread reinforcement corrosion and concrete spalling, and are beyond economic repair. If the reconstruction project does not proceed, the piers will require more frequent and substantial repairs to meet acceptable safety standards, and thus rendering inconvenience to pier users. We therefore propose to reconstruct the piers. We also take this opportunity to upgrade the facilities by providing roof covers for shelter and shading purposes.

6. During the reconstruction stage, we will provide temporary berthing and mooring facilities to the existing piers at Kat O Chau, Cheung Chau and Wu Kai Sha. At Peng Chau, we will temporarily divert the pier users to two adjacent landings which are respectively 20 metres ("m") and 120 m away from the existing pier.

## **PUBLIC CONSULTATION**

7. We have consulted Cheung Chau Area Committee on 28 November 2000 and 3 December 2001, Peng Chau and Discovery Bay Area Committee on 28 February 2001, Sha Tau Kok District Rural Committee on 26 April 2001 and Shatin District Council on 26 June 2001 on the proposed reconstruction of the public piers at Cheung Chau, Peng Chau, Kat O Chau and Wu Kai Sha respectively. The Committees / Council supported the proposed reconstruction works and their

suggestions, such as the provision of additional bollards and increasing the width of access catwalk, have been incorporated into the project.

8. We gazetted the proposed reconstruction works at Kat O Chau, Peng Chau, Cheung Chau and Wu Kai Sha under the Foreshore and Sea-bed (Reclamations) Ordinance, Cap. 127 ("Cap. 127") on 20 July 2001, 10 August 2001, 19 October 2001 and 9 November 2001 respectively. We did not receive any objections to the reconstruction works at Cheung Chau and Wu Kai Sha. One objection was raised by World Wide Fund For Nature Hong Kong on 4 September 2001 to the reconstruction works at Peng Chau and Kat O Chau on grounds of possible impact on the nearby corals. We explained to the objector that there would be no adverse impact on water quality according to the water quality monitoring results of previous pier reconstruction projects. We will install silt curtain around the work site to contain any possible mud generated from the construction works. We will also monitor the water quality around the work site and the coral area during the re-construction. The objector was satisfied with the above explanations and the proposed mitigation measures, and withdrew the objection subsequently.

9. The proposed reconstruction works at Kat O Chau and Peng Chau, Cheung Chau and Wu Kai Sha were gazetted on 2 November 2001, 4 January 2002 and 25 January 2002 respectively under Cap. 127 above.

## **ENVIRONMENTAL IMPLICATIONS**

10. The project is not a designated project under the Environmental Impact Assessment ("EIA") Ordinance, Cap. 499. For each pier, we have completed a Preliminary Environmental Review ("PER") which sets out mitigation measures including the installation of a silt curtain around the project site and water-spraying during demolition of the existing piers to reduce emission of fugitive dust during construction. The PERs have been approved by the Director of Environmental Protection. In addition, we shall implement other standard pollution control measures such as silencers and siltation chambers to control short term environmental impacts during construction to within the established standards and guidelines. We estimate the cost of implementing the above mitigation measures to be \$1.56 million. We have included this cost in the overall project estimate.

11. We will require the contractor to submit a waste management plan ("WMP") for approval. The WMP will include appropriate mitigation measures to avoid, reuse and recycle construction and demolition ("C&D") materials. We will

ensure that the day-to-day operations on site comply with the approved WMP. We will control the disposal of public fill and C&D waste to designated public filling facilities and landfills respectively through a trip ticket system. The contractor will be required to separate public fill from C&D waste for disposal at appropriate facilities. We will record the disposal, reuse and recycling of C&D materials for monitoring purposes.

12. We have considered in the planning and design stages the need to minimize the generation of C&D materials. We estimate that the project will generate about 800 cubic metres ("m<sup>3</sup>") of C&D materials, including broken concrete and timber fenders generated by the demolition of the existing piers. Of these, we will reuse about 150 m<sup>3</sup> (19%) of demolished pier elements as artificial reefs in Outer Port Shelter at Sai Kung, 550 m<sup>3</sup> (69%) as fill in public filling areas<sup>1</sup> and 50 m<sup>3</sup> (6%) of fenders in the repair of other government piers in Hong Kong. The remaining 50 m<sup>3</sup> (6%) will be disposed of at landfills. The notional cost of accommodating C&D waste at landfill sites is estimated to be \$6,250 for this project (based on a notional unit cost<sup>2</sup> of \$125/m<sup>3</sup>).

## **LAND ACQUISITION**

13. The proposed works do not require any land acquisition and clearance.

## **WAY FORWARD**

14. We included the project in Category B of the Public Works Programme in September 2000. CED has completed the design of the project using in-house resources. We plan to submit the proposed project to the Public Works Subcommittee on 3 April 2002 for upgrading the project to Category A at an estimated cost of \$123 million in money-of-the-day prices. The annual recurrent expenditure arising from this project is estimated to be \$0.23 million. Subject to the funding approval of the Finance Committee, we plan to commence the reconstruction works

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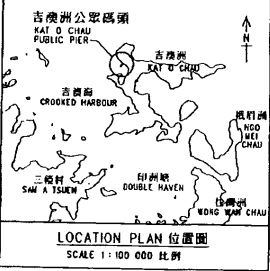
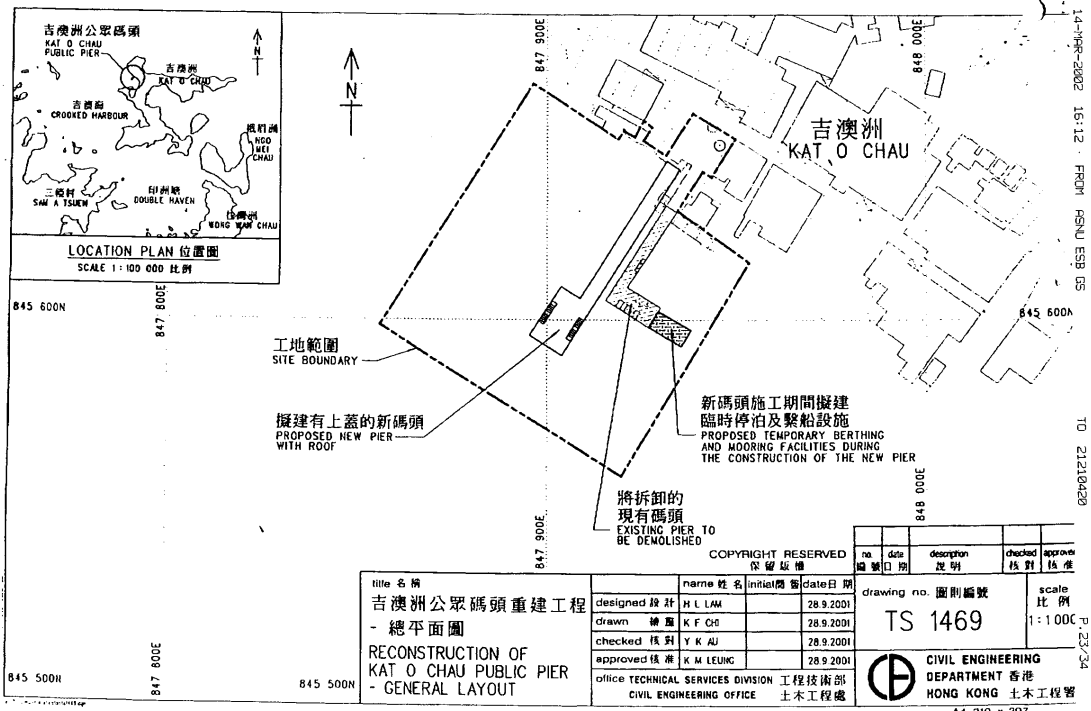
<sup>1</sup> A public filling area is a designated part of a development project that accepts public fill for reclamation purposes. Disposal of public fill in a public filling area requires a licence issued by the Director of Civil Engineering.

<sup>2</sup> This estimate has taken into account the cost for developing, operating and restoring the landfills after they are filled, and the aftercare required. It does not include the land opportunity cost for existing landfill sites (which is estimated at \$90/m<sup>3</sup>), nor the cost to provide new landfills (which are likely to be more expensive) when the existing ones are filled. The notional cost estimate is for reference only and does not form part of this project estimate.

in May 2002 for completion in July 2004.

15. We estimate that the project will create some 66 jobs comprising 11 professional/technical staff and 55 labourers, totalling 1 725 man-months.

Economic Services Bureau  
March 2002



工地範圍  
SITE BOUNDARY

擬建有上蓋的新碼頭  
PROPOSED NEW PIER WITH ROOF

新碼頭施工期間擬建  
臨時停泊及繫船設施  
PROPOSED TEMPORARY BERTHING AND MOORING FACILITIES DURING THE CONSTRUCTION OF THE NEW PIER

將拆卸的  
現有碼頭  
EXISTING PIER TO BE DEMOLISHED

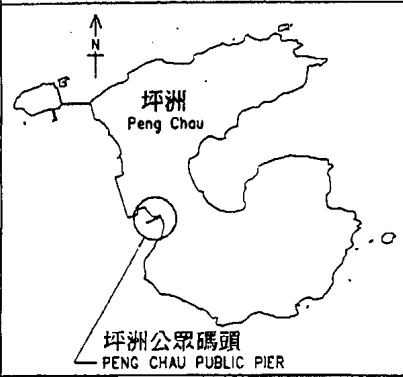
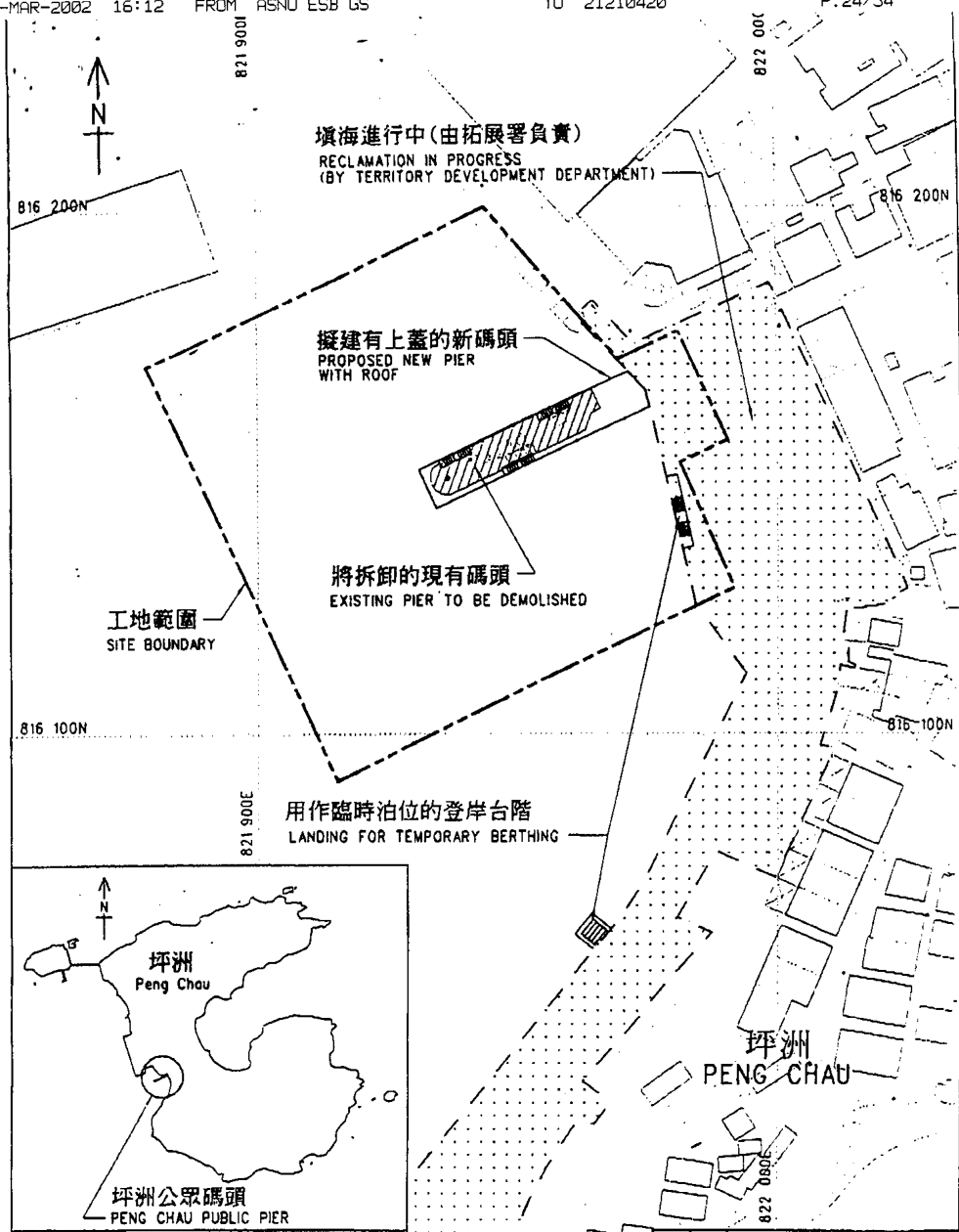
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吉澳洲公眾碼頭重建工程  
- 總平面圖  
RECONSTRUCTION OF  
KAT O CHAU PUBLIC PIER  
- GENERAL LAYOUT

name 姓名	initial 簡寫	date 日期
designed 設計	H L LAM	28.9.2001
drawn 繪圖	K F CH	28.9.2001
checked 核對	Y K AU	28.9.2001
approved 核實	X M LEUNG	28.9.2001

office TECHNICAL SERVICES DIVISION 工程技術部  
CIVIL ENGINEERING OFFICE 土木工程處

no 編號	date 日期	description 說明	checked 核對	approved 核實
drawing no. 圖則編號		TS 1469		
scale 比例		1:1000		

CIVIL ENGINEERING DEPARTMENT 香港  
HONG KONG 土木工程署



LOCATION PLAN 位置圖  
SCALE 1:25 000 比例

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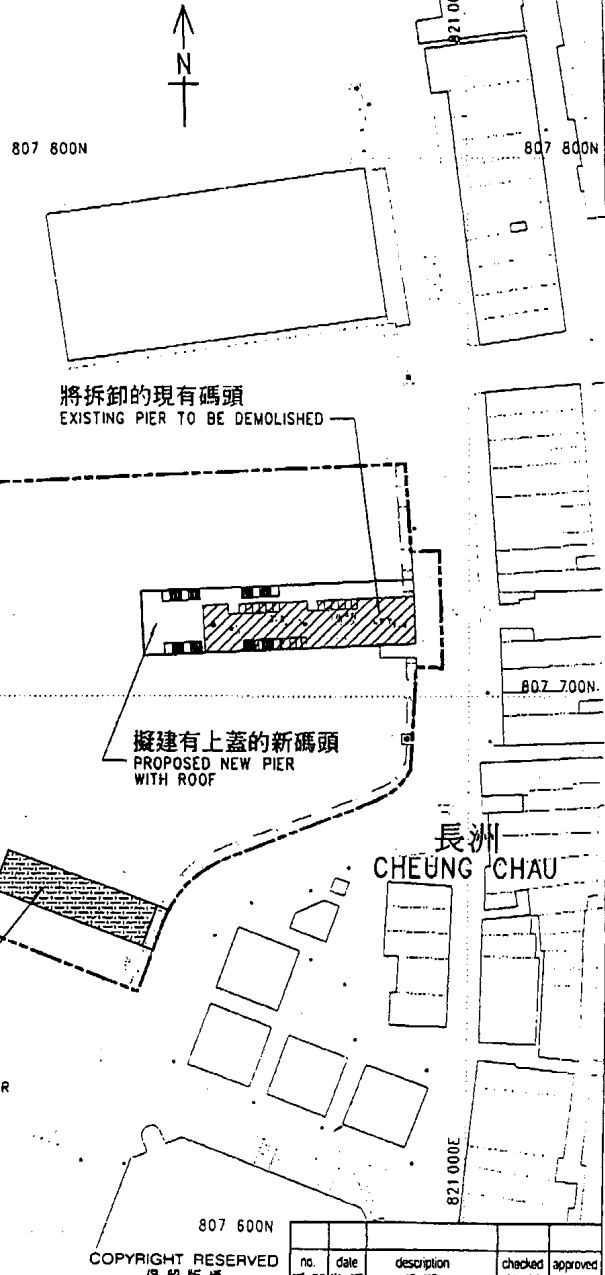
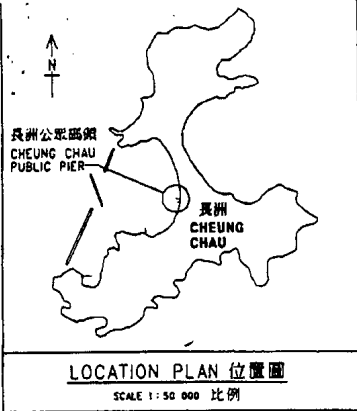
title 名稱  
坪洲公眾碼頭重建工程  
- 總平面圖  
RECONSTRUCTION OF  
PENG CHAU PUBLIC  
PIER - GENERAL LAYOUT

name 姓名	initial 簡簽	date 日期
designed 設計	H L LAM	28.9.2001
drawn 繪圖	K L CHAN	28.9.2001
checked 核對	Y K AU	28.9.2001
approved 核准	K M LEUNG	28.9.2001

drawing no. 圖則編號	scale 比例
TS 1477	1:1000

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title 名稱  
長洲公眾碼頭重建工程  
- 總平面圖  
RECONSTRUCTION OF  
CHEUNG CHAU PUBLIC  
PIER - GENERAL LAYOUT

name 姓名	initial 簡碼	date 日期
designed 設計	H L LAM	28.9.2001
drawn 繪圖	P K CHEN	28.9.2001
checked 核對	Y K AU	28.9.2001
approved 核准	K M LEUNG	28.9.2001

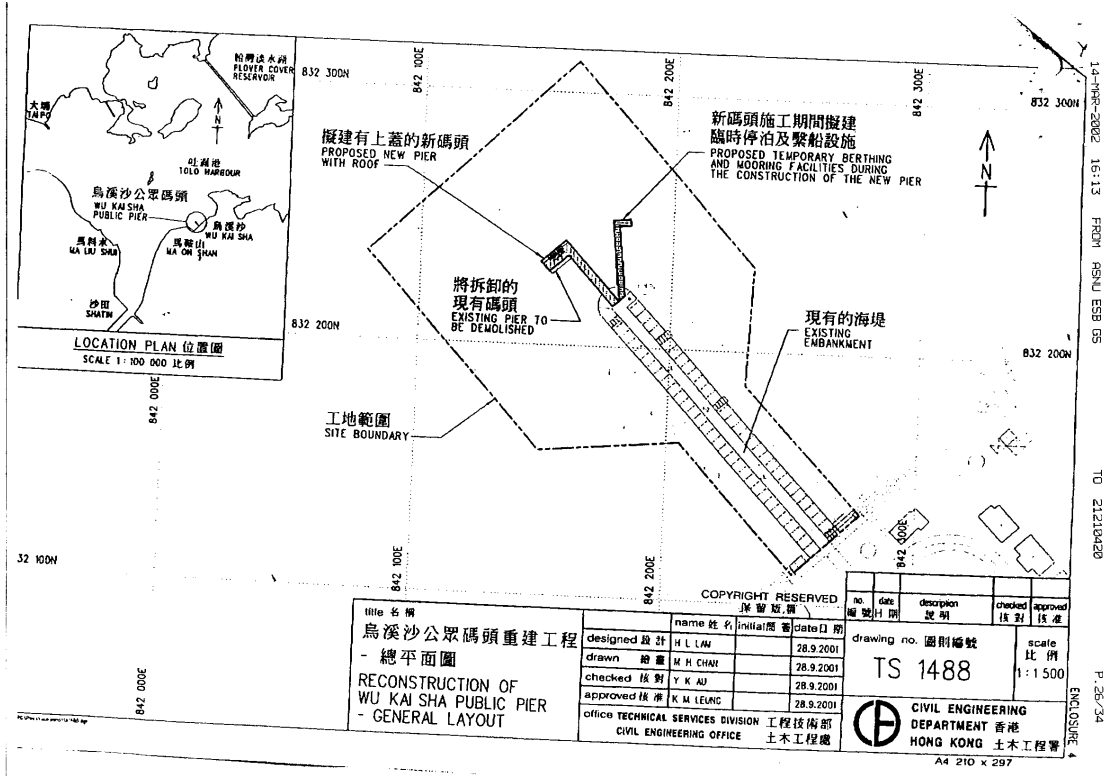
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15.02.01 (Rev. 01) 15.02.01





烏溪沙公眾碼頭重建工程  
- 總平面圖  
RECONSTRUCTION OF  
WU KAI SHA PUBLIC PIER  
- GENERAL LAYOUT

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name 姓名	initial 簡簽	date 日期
designed 設計	H L LAM	28.9.2001
drawn 繪圖	M H CHAN	28.9.2001
checked 核對	Y K AU	28.9.2001
approved 核準	K M LEUNG	28.9.2001

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				scale 比例 1:1500

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