For Discussion
On 13 January 2000

LEGISLATIVE COUNCIL
PANEL ON PLANNING, LANDS AND WORKS

Reclamation at Tuen Mun Area 38, Stage 2

PURPOSE

1. This paper briefs Members on the proposed reclamation at Tuen Mun Area 38 and explains the need to advance the reclamation work to provide an outlet for public fill.

BACKGROUND

2. In 1989, the Port and Airport Development Strategy identified Tuen Mun Area 38 as suitable for special industries. The Expanded Development Study of Tuen Mun Area 38, completed in October 1990, confirmed the feasibility of developing Tuen Mun Area 38 into a Special Industries Area (SIA). We completed an Environmental Impact Assessment (EIA) Study in December 1994. The studies confirmed that the proposed SIA Development in Tuen Mun Area 38 was both feasible and viable in terms of land use planning, traffic and transport, engineering, environmental impact and marine operation aspects.

3. The Tuen Mun Area 38 SIA project comprises reclamation of 61 hectares of land and provision of supporting infrastructure to develop land for special industries[1]. The

[1] Special industries are defined as industries that are capital intensive, land extensive and therefore unable to be accommodated in flatted factories, may require additional attention to environmental effects, may require a heavy consumption of water, generally require direct access to port facilities and preferably deep water on account of the bulk and/or unpredictable nature of raw materials handled, and may require bulk storage or warehousing facilities on site, including in some cases, goods requiring extra care or treatment in handling.

reclamation is planned to be carried out in two stages. The Stage 1 reclamation of about 28 hectares, which commenced in September 1995, is expected to complete by late January 2000. In January 1997, we submitted a paper to PWSC to seek endorsement for funds to commence the Stage 2 reclamation. A copy of the PWSC Paper PWSC(96-97)87 is at Annex A Annex A. At the meeting, some Members queried the land demand from special industries and the paper was withdrawn so that the Industry Department could provide an updated assessment on the demand for SIA for further consideration by the Subcommittee. However, this was overtaken by events when it was decided that the site should be earmarked for the development of the 4th industrial estate.

4. In 1996, the Director of Audit conducted an audit investigation on the disposal of construction and demolition (C&D) material[2]. He concluded, among others, that the Government had not provided sufficient outlets for reuse of inert C&D material (known as public fill) for reclamation purpose resulting in considerable additional disposal costs to the Government and early depletion of the landfill capacity. He recommended that expeditious action should be taken so that the availability of public filling outlets can be maintained. In 1997, the Public Accounts Committee discussed and supported this recommendation.

PROPOSAL

5. We now propose to upgrade part of 321CL, entitled "Reclamation and servicing of Tuen Mun Area 38 for special industries – stage 2 reclamation" to Category A to cover:-

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[2] C&DM is a mixture of inert and organic material arising from site clearance, excavation, construction, refurbishment, renovation, demolition and road works. The inert material, called public fill, is suitable for reuse in reclamation and site formation works. Some of it can also be used for recycling into material for construction. Ideally, only the organic material called construction and demolition waste (C&D waste) should be disposed of at landfills.

(a) stage 2 reclamation of 33 hectares of land in the eastern half of the SIA; and

(b) construction of 550 metres long permanent seawall.

Encl. A Encl. B Details of the proposed works are shown in a plan at Enclosure A and an aerial photograph showing the latest site condition is at Enclosure B

JUSTIFICATION

6. It is the Government's policy to maximise the reuse of public fill in land formation and reclamation so as to minimise its disposal at the landfills. Despite the economic downturn, the construction industry produced 13% more C&D material in 1999 compared to 1998. In 1999, 5.9 million cubic metres (Mm^3) of public fill and 1.6 Mm^3 of C&D waste were disposed at public filling areas[3] and landfills respectively.

Annexes B & C

7. At present, there are three public filling areas operating in the territory, located at Tung Chung Development Phase 3A, TKO Area 137 and Pak Shek Kok in Sha Tin. Annexes B and C summarise the public filling capacities of approved and planned reclamation projects respectively. Because of uncertainty associated with other planned reclamation projects, there would be an acute shortfall of public filling capacity by mid-2001. We propose to use the Stage 2 Reclamation in Tuen Mun Area 38 as a public filling area to provide about 3.7 million cubic metres of public filling capacity.

8. The Waste Reduction Committee's Task Force for the Construction Industry also recommended the early start of the reclamation to provide an outlet for

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[3] A public filling area is a designated part of a development project that accepts public fill as filling material for reclamation purpose. Disposal of public fill in a public filling area requires a licence issued free of charge by the Director of Civil Engineering.

public fill. If the Stage 2 Reclamation does not proceed, by 2001 the available public filling capacity will not be able to handle the territory's total demand[4]. If all the 3.7 Mm^3 of public fill were disposed in landfills, it would cost the taxpayers about $ 833 million[5] and reduce the life of the landfills by about 7 months.

9. From a district planning perspective, the site would have to be reclaimed at some stage in future. An extract from the approved Tuen Mun Outine Zoning Plan is at Enclosure C. An early reclamation could allow more time for the formed site to consolidate thereby reducing the residual settlement encountered in future development. Even if HKIEC decided not to proceed with the 4th industrial estate at Tuen Mun Area 38, the land remains zoned as SIA use.

Encl. C

10. If the proposed Stage 2 Reclamation could proceed as we now propose, the time allowed for public filling will be about 28 months and the public filling capacity can be increased from 1.2 million cubic metres to 3.7 million cubic metres due to the longer filling period. Public fill collected from other parts of the territory will also be barged in for reclamation to meet the construction programme without adversely impacting upon the surrounding road network.

Fourth Industrial Estate

11. In 1997, the Chief Executive announced in the Policy Address that a site for a fourth industrial estate had been identified in Tuen Mun. The development project was expected to be completed by 2004 when the existing land bank of the Hong Kong Industrial

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[4] The available public filling capacity for any one year depends on the programme of reclamation projects upgraded to Category A of the Public Works Programme. It is estimated that the amount of C&D material produced in 2001 is about 6.1 Mm^3. About 5 Mm^3 (i.e. 82%) are public fill suitable for reuse in reclamation against an available public filling capacity of only about 3 Mm^3.

Estates Corporation (HKIEC) was expected be exhausted. The tentative programme for the Tuen Mun Area 38 Stage 2 Reclamation project was to commence in late 2001 to provide the remaining 33 hectares of land in addition to those reclaimed under Stage 1 for the development of the proposed 4th Industrial Estate. The HKIEC is currently conducting a consultancy study on the role and operation of its industrial estates. The study is expected to be completed in early 2000.

12. In the past the HKIEC has undertaken the site formation works for its industrial estates. Although HKIEC could proceed with the reclamation works as scheduled in late 2001, this would allow only 9 months for receiving public fill because of the need to match the reclamation programme with the land disposal programme. This would involve extensive use of marine sand in lieu of public fill in both the reclamation and surcharge mound. This would not only substantially reduce the use of public fill, but also create a disposal problem at the end of the construction for the marine sand used to build the surcharge mound.

COST

13. The estimated cost of the proposed works using public fill is about $379 million at December 1998 prices. This may be compared with the estimated cost of completing the project using marine sand and a portion of public fill, i.e. $ 404 million at December 1998 prices. We will submit a paper for the consideration of PWSC on 17 May 2000.

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[5] The estimate was based on one cubic metre of public fill weighs about 1.8 tonne and a unit rate of $125/tonnes which include the capital and operation cost for disposing waste at landfills.

PROGRAMME

14. Subject to funding approval, we propose to commence the Stage 2 Reclamation contract in October 2000. The Stage 2 Reclamation contract is estimated to complete in mid 2004. This would allow sufficient time for completion of the infrastructure works to be undertaken by HKIEC, if that proves necessary.

PUBLIC CONSULTATION

15. We gazetted the proposed reclamation on 19 February 1993 under the Foreshore and Seabed (Reclamations) Ordinance. We received three objections to the proposal. After discussing their concerns, two objectors withdrew their objections. One objector did not withdraw his objection. The then Governor-in-Council overruled this objection and authorised the reclamation on 10 June 1994.

16. We consulted the Environmental Improvement and District Development Committee of the Tuen Mun District Board on the Stage 2 SIA reclamation and associated infrastructure on 6 September 1996. The Committee raised no objection to the proposed works.

ENVIRONMENTAL IMPLICATIONS

17. We completed an Environmental Impact Assessment (EIA) in 1994 and concluded that the proposed reclamation works would have no adverse long-term impact on the environment. The Advisory Council on the Environment (ACE) also endorsed the EIA report on 20 February 1995. We would adopt a reclamation design that will cause minimal

disturbance to the seabed to reduce water quality impacts. For short-term impact during construction, we will control noise, dust, water quality and site run-off nuisance within established standards and guidelines through the implementation of pollution control measures in the works contracts.

Planning and Lands Bureau and
Environment and Food Bureau
January 2000

Approved Reclamation Projects and their Public Filling Capacity
已核准填海工程及其公眾填土容量

公眾填土工程項目 Public Filling Programme Items	2000 年 1 月 1 日預計公眾填土容量 (立方米) Estimated Available Public Filling capacity[1] as at 1 January 2000 (cubic metre)		預計停止接收公眾填土日期 Expected Closure Date	預計接收公眾填土日期 Expected Period for Accepting Public Fill
	填海容量 Reclamation Volume	預載容量 Surcharging Volume		
將軍澳第 137 區填海工程第二期 Tseung Kwan O Area 137 Reclamation Stage II	192 萬 1.92 M	--	2000 年 11 月 October 2000	
東涌發展第三期甲填海工程 Tung Chung Development Phase 3A Reclamation	170 萬 1.70 M	109 萬 1.09 M	2000 年 8 月 August 2000	
白石角填海工程第三期第一階段 Pak Shek Kok Reclamation Stage III	98 萬 0.98 M	--	2000 年 8 月 August 2000	
佐敦道填海工程三期 Jordan Road Reclamation Phase III	35 萬 0.35 M	--	--	2000 年 5 月至 2001 年 4 月 May 2000 to April 2001
白石角填海工程二期餘下工程 Reclamation Stage II Remaining Works	195 萬 1.95 M	--	--	2000 年 8 月至 2001 年 12 月 August 2000 to December 2001
竹篙灣填海工程第一期 Penny's Bay Reclamation Stage I	200 萬 2.00 M	--	--	2001 年 3 月至 2002 年 6 月 March 2001 to June 2002

[1] Public fill is sometimes stockpiled as surcharging on newly reclaimed land to accelerate the settlement process. After it has achieved the required settlement, the public fill will be removed and deposited in other reclamation. Since the material will eventually be used in future reclamation projects, the capacity was not considered as available capacity but use to smooth out fluctuation in the amount of public fill produced.
有時公眾填料會被貯存在新填海區的土地上作為預載的用途，以加速其沉降。一旦達致所需的沉降水平，公眾填料會被運往其它填海區作為填料。由於用作預載的公眾填料最終仍需卸置在其後的填海工程上，因此其容量不能列為真正的公眾填料容量，只能用作紓緩因公眾填料供應的波動所引發的需求。

Annex C
附件 C

Planned Reclamation Projects and their Public Filling Capacity

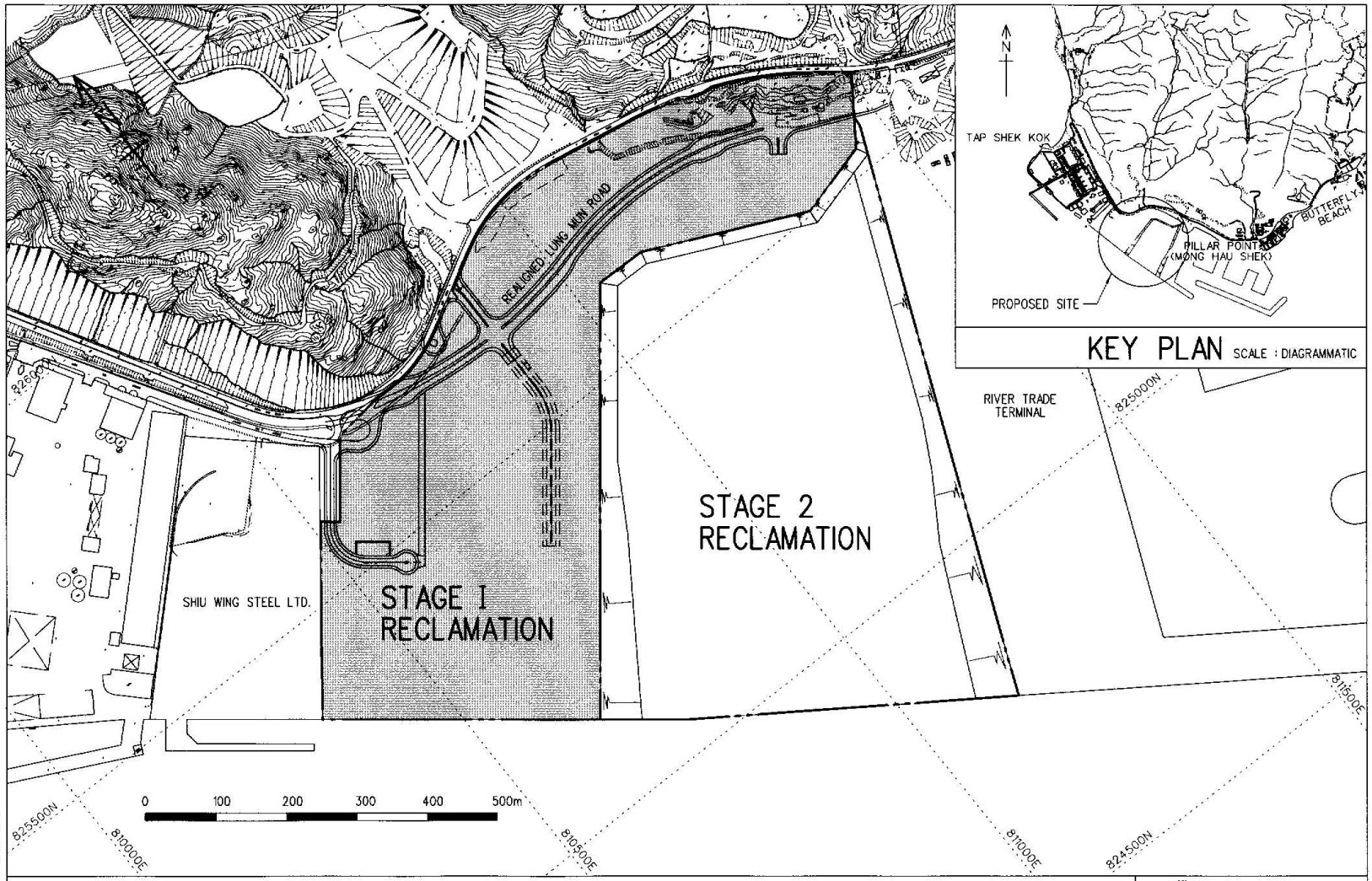
計劃中填海工程及其公眾填土容量

計劃中公眾填土工程項目 Planned Public Filling Programme Items	2000 年 1 月 1 日 預計公眾填土容量(立方米) Estimated Available Public Filling capacity[1] as at 1 January 2000 (cubic metre)		預計接收公眾填土日期 Expected Period for Accepting Public Fill
	填海容量 Reclamation Volume	預載容量 Surcharging Volume	
將軍澳市中心填海工程第三階段第二期[2] Tseung Kwan O Town Centre Reclamation Phase III Stage II	161 萬 1.61 M	60 萬 0.60 M	2000 年 11 月至 2001 年 6 月 November 2000 to June 2001
北青衣填海工程 North Tsing Yi Reclamation	50 萬 0.50 M	--	2001 年 10 月至 2003 年 12 月 October 2001 to December 2003
屯門第 38 區填海工程第二期 Tuen Mun Area 38 Reclamation Stage II	370 萬 3.70 M	75 萬 0.75 M	2001 年 7 月至 2003 年 8 月 July 2001 to August 2003
竹篙灣填海工程第二期[3] Penny's Bay Reclamation Stage II	800 萬 8.0 M		2002 年 6 月至 2005 年 12 月 June 2002 to December 2005

1 Public fill is sometimes stockpiled as surcharging on newly reclaimed land to accelerate the settlement process. After it has achieved the required settlement, the public fill will be removed and deposited in other reclamation. Since the material will eventually be used in future reclamation projects, the capacity was not considered as available capacity but use to smooth out fluctuation in the amount of public fill produced.
有時公眾填料會被貯存在新填海區的土地上作為預載的用途，以加速其沉降。一旦達致所需的沉降水平，公眾填料會被運往其它填海區作為填料。由於用作預載的公眾填料最終仍需卸置在其後的填海工程上，因此其容量不能列為真正的公眾填料容量，只能用作紓緩因公眾填料供應的波動所引發的需求。

2 The Public Works Sub-committee has endorsed the proposed reclamation project on 5 January 2000 and the Finance Committee will discuss the funding application on 21 Jnauary 2000.
工務小組委員會於 2000 年 1 月 5 日的會議上已通過建議批准該項填海計劃，而財務委員會將於 2000 年 1 月 21 日的會議上討論有關的撥款申請。

3 The preliminary design could not provide the required breakdown.
初步設計未能提供有關資料。



Proposed Tuen Mun Area 38 Stage 2 Reclamation
擬建的屯門第 38 區填海工程第二期

office
PORT WORKS DIVISION
CIVIL ENGINEERING OFFICE

CIVIL ENGINEERING DEPARTMENT
HONG KONG

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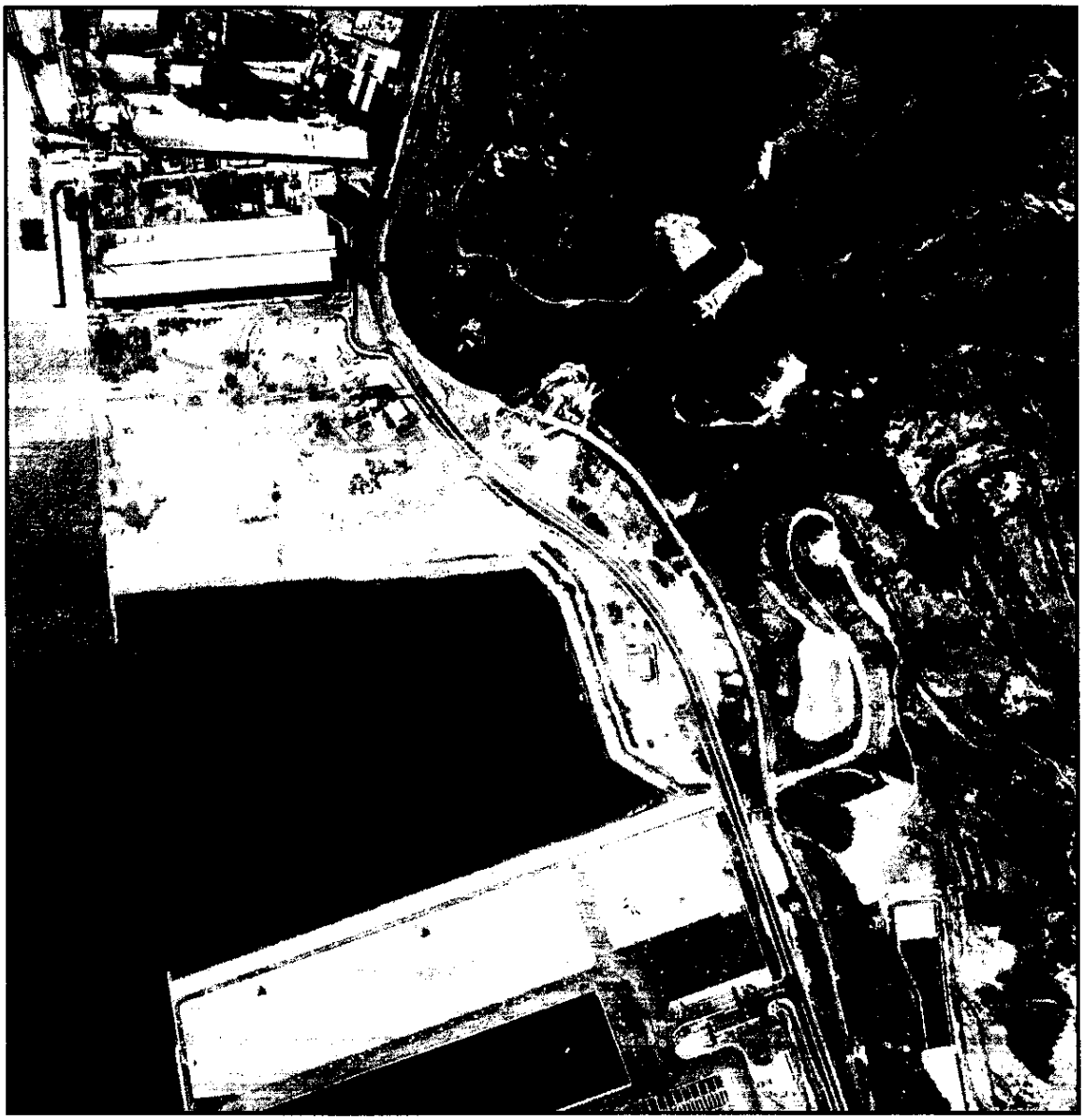
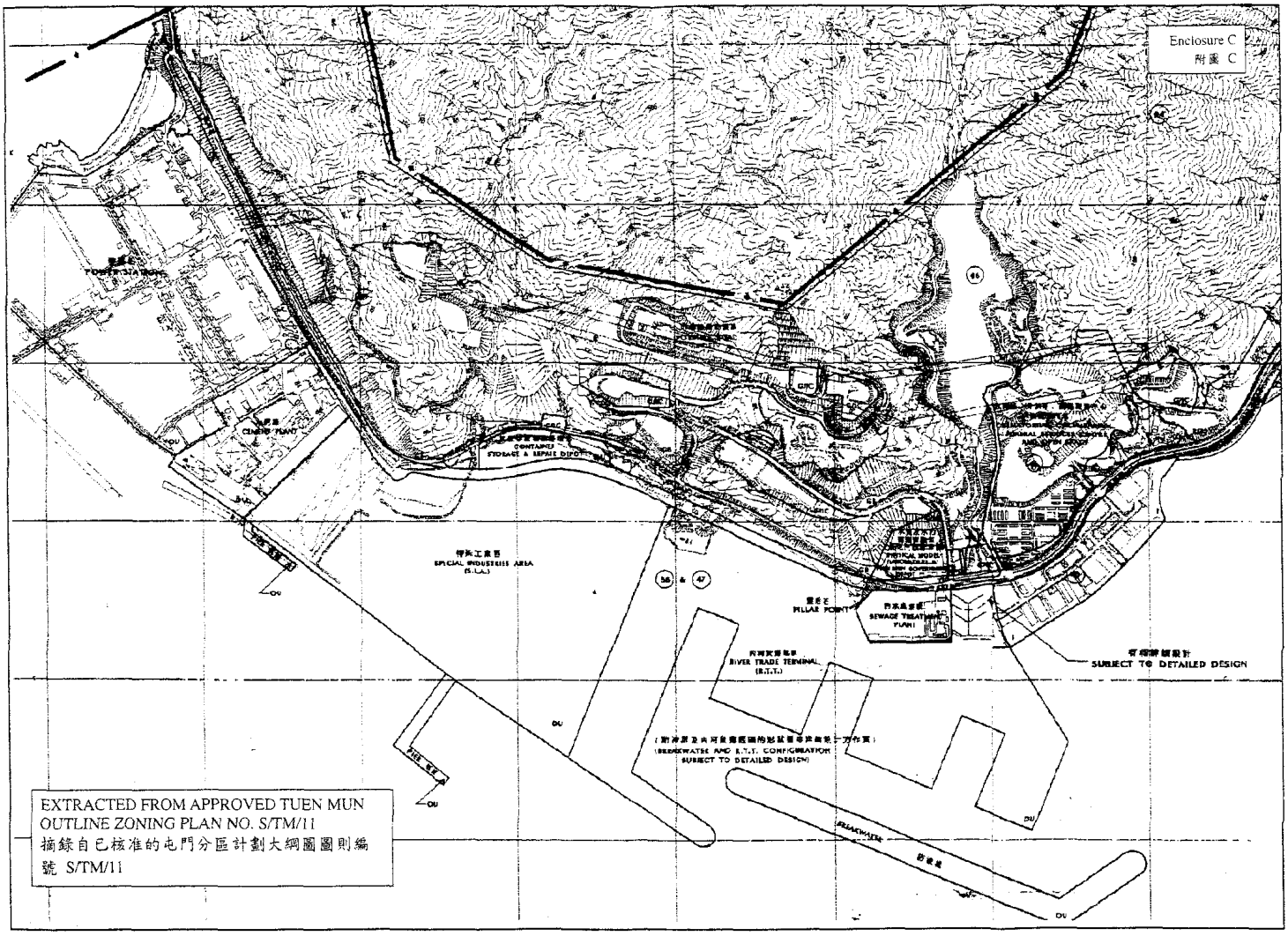
Enclosure A
附圖 A

Enclosure B
附圖 B



Aerial Photograph showing the existing site condition at Tuen Mun Area 38

屯門第 38 區現況的空中照片


Enclosure C
附圖 C
SPECIAL INDUSTRIES AREA
(S.I.A.)
PILLAR POINT
SEWAGE TREATMENT PLANT
RIVER TRADE TERMINAL
(R.T.T.)
SUBJECT TO DETAILED DESIGN
(BREAKWATER AND R.T.T. CONFIGURATION SUBJECT TO DETAILED DESIGN)
BREAKWATER
OU
EXTRACTED FROM APPROVED TUEN MUN OUTLINE ZONING PLAN NO. S/TM/11
摘錄自已核准的屯門分區計劃大綱圖圖則編號 S/TM/11