

**FILL BANK AT TSEUNG KWAN O AREA 137**

將軍澳第 137 區的填料庫

**PROJECT PROFILE**

工程項目簡介

## **PROJECT PROFILE**

### **1. Project Title**

Fill Bank at Tseung Kwan O Area 137

### **2. Purpose and Nature of the Project**

- 2.1 Construction and demolition (C&D) materials are a mixture of inert materials (e.g. soil, rocks and broken concrete) and wastes arising from construction activities. Local construction industry produces about 14 million tonnes of C&D materials a year. At the moment, most of the inert materials (also known as public fill) are reused at reclamation projects which hitherto have been the major outlet for these materials. However, by mid-2002, most of the approved reclamation projects will no longer be able to absorb further public fill.
- 2.2 The project is to establish and operate a fill bank at Tseung Kwan O Area 137 for temporary stockpiling of public fill to supplement the projected shortfall in the overall territory-wide public filling capacity, particularly between 2002 and 2005. When surplus public filling capacity is available in the territory, the stockpile will be removed and delivered to public filling areas mainly by barges.
- 2.3 A Construction and Demolition Material Sorting Facility (C&DMSF) will also be established within the fill bank for sorting mixed C&D materials and for crushing the size of over-sized materials in C&D materials.

### **3. Name of Project Proponent**

Civil Engineering Department (CED)

### **4. Location and Scale of Project**

- 4.1 The site is located in Tseung Kwan O Area 137 with an area of approximately 104 hectares. To the north is the SENT Landfill and the Tseung Kwan O Industrial Estate. To the east is the Clearwater Bay Country Park. A TVB Broadcast and Production Centre, which is adjacent to the northern boundary of the site, is expected to commence operation in early 2003.
- 4.2 The nearest residential areas are the Island Resort and Fullview Garden in Siu Sai Wan and the planned residential developments in Tseung Kwan O Areas 85 and 86.
- 4.3 The scope of the project comprises:
- (i) site clearance;
  - (ii) construction of temporary storm water system;
  - (iii) stockpiling of 6 million cubic metres (Mm<sup>3</sup>) or 10.8 million tonnes of public fill delivered by trucks or by barges;
  - (iv) setting up of a barging point for removal of stockpiled public fill by barges;

- (v) operation of a C&DMSF with a size of 2 hectares and a sorting capacity of 2,000 tonnes of C&D materials per day ;
- (vi) implementation of environmental mitigation measures in connection with the works; and
- (vii) carrying out of environmental monitoring and audit.

- 4.4 Plan No. P20164-25C – Fill Bank at Tseung Kwan O Area 137 is attached. The tentative locations of the barging point and the C&DMSF are also indicated.
- 4.5 The contractor of CED’s contract “CV/2000/09 – Infrastructure for Penny’s Bay Development, Contract 1” will occupy part of the site from mid 2002 to October 2003 for removing existing surcharge mound. The contractor responsible for operating the fill bank will take over those portions of the site in stages in accordance with the schedule shown on the Plan No. P20164-25C.

## **5. History of Site**

- 5.1 The proposed site and its general environment are undeveloped with no residential unit within a two-kilometre radius to the centre of the site. The southern part of the proposed site was reclaimed in December 1999. The formed land together with the surcharging mounds were taken over by a CED’s Contract No. CV/97/01 “Tseung Kwan O Port Development at Area 137 Stage 2 – Construction of Seawalls and Reclamation”. The reclamation work under CV/97/01 is in progress and will be complete at end 2002/early 2003 which will form the northern part of proposed site.

## **6. Name and Telephone Number of Contact Persons**

## **7. Outline of Planning and Implementation Programme**

- 7.1 The project will be planned and designed by in-house staff. Establishment, operation and decommissioning (i.e. removal of stockpiling public fill) of the fill bank and the C&DMSF will be carried out by a contractor under the supervision of CED.

- 7.2 The key events for the project implementation are as follows:

(a) Preliminary design	Jun 2001 – Aug 2001
(b) Detailed design	Sep 2001 – Feb 2002
(c) Environmental Impact Assessment	Oct 2001 – Jan 2002
(d) Tendering	Mar 2002 – May 2002
(e) Contract commencement	Jun 2002
(f) Stockpiling of public fill	Jun 2002 – Jan 2004
(g) Removal of stockpiled public fill	Apr 2004 – Dec 2007

## 8. Possible Impact on the Environment

8.1 Possible impacts on the environment during the establishment, operation and decommissioning stages of the fill bank and the C&DMSF are outlined in the following sections:

### 8.2 Air quality Impact

8.2.1 It is anticipated that the establishment, operation and decommissioning of the fill bank are not particularly dusty. With the implementation of suitable dust mitigation measures, the air quality would not be significantly affected during these stages.

8.2.2 The establishment stage will mainly involve the following major activities:

- paving the area around site entrance and major access road
- erection of site fencing and site offices
- construction of temporary stormwater system
- fabrication of machinery for the C&DMSF
- fabrication of structural steel members of the barging point
- installation of wheel washing facilities and other environmental mitigation measures

It is expected that the air quality impact during the establishment stage will not be significant.

8.2.3 Dust can be generated from the following major activities during operation and decommissioning stages:

- from the public fill as it is transported/delivered on site
- from the loading and unloading operations
- from the stockpiles of public fill within the fill bank
- from hauled roads and unpaved areas of the site
- from the operation of the barging point
- from the stockpiles of public fill in the barges
- from the operation of C&DMSF

8.2.4 In addition, air pollution can arise from exhaust gas emissions from vehicles manoeuvring on site.

8.2.5 The western and northern boundaries of the fill bank are at a distance of 1.8 kilometres from Island Resort and Fullview Garden at Siu Sai Wan and 1.9 kilometres from the planned residential areas at Tseung Kwan O Areas 85 and 86 respectively. As the barging point and the C&DMSF will be located near the central part of the fill bank, they are further away from these two Air Sensitive Receivers (ASR). In view of the great distance between the ASRs and the fill bank (including the barging point and the C&DMSF) and the implementation of suitable dust mitigation measures, it is unlikely that the operation on site will have much adverse effect on the air quality at the ASRs.

8.2.6 The ASRs in the Tseung Kwan O Industrial Estate (TKOIE), in particular the adjacent TVB Broadcast and Production Centre, may be affected by the establishment, operation and decommissioning of the fill bank. It is necessary to assess the likely air quality impact on these ASRs.

8.2.7 The fugitive dust and the exhaust gas arising from the vehicles carrying public fill to the fill bank will also affect the ASRs along the public roads leading to Tseung Kwan O Area 137. It is expected that most the trucks will be using Wan Po Road and therefore the impact on the ASRs along this road, including the Nam Fung Plaza, the planned residential developments in Areas 85 and 86, the TKOIE and the TVB Broadcast and Production Centre, has to be assessed.

### 8.3 Water Quality Impact

8.3.1 The public filling barging point will be erected on existing vertical seawall within the anchorage basin. As such, no dredging work will be involved for the establishment of the barging point.

8.3.2 During the operation of the barging point, the tipping activities may have potential impacts to marine water from accidental losses of public fill during placement into the barges. However, with stringent control on the tipping operation, the risk of such pollution is considered to be negligible. Therefore, it is unlikely that dredging work is required during the operation of the barging point.

8.3.3 Public fill may contain small quantities of timber and refuse. Accidental dropping of these materials into the sea would generate marine floating refuse/debris. However, with the provision of partial enclosure at the barging point and stringent control on the tipping operation, the risk of such pollution is considered to be minimal.

8.3.4 Surface run-off from the site can be a source of marine water pollution unless it is adequately controlled. Muddy and/or oily water entering the sea will not only have an adverse impact on marine water quality but also create an adverse visual impact.

8.3.5 The wastewater arising from barge operation such as spent spray water produced from dust suppression will also be another source of impact if it is not properly collected and treated.

8.3.6 In the C&DMSF, water spray bars will be used to suppress dust arising from the sorting and crushing processes. Wastewater arising from spent spray water produced from the water spray bars will also affect the water quality if not properly collected and treated.

8.3.7 Wastewater generated from site staff will also affect the water quality if not properly treated.

### 8.4 Noise

8.4.1 The establishment of the fill bank will mainly involve paving the area around site entrance and major access road, setting up of the C&DMSF, construction of barging point, site fencing and temporary stormwater system. It is therefore expected that the noise impact during establishment stage will not be significant. In addition, the proposed site is separated from the planned residential developments at Areas 85 and 86 by the Tseung Kwan O Industrial Estate. The nearest residential areas are the Island Resort and Fullview Garden at Siu Sai Wan as shown on Plan No. P20164-26B. These residential developments are about 1.8 km from the western site boundary. No adverse noise impact is therefore expected.

8.4.2 During operation and decommissioning stages, noise will be generated mainly from:

- vehicles using the fill bank
- the loading of public fill onto barges, particularly as the trucks reverse up the unloading facility in low gear with their reverse sirens sounding
- the initial loads of material discharge onto an empty metal barge and cause reverberations
- the operation of the machinery in the C&DMSF

Since the fill bank is located in a remote area and far away from the residential areas, the noise impact during operation and decommissioning stages will not be significant.

8.4.3 In order to provide a convenient outlet for public fill at night and during General Holidays, the fill bank will need to be opened from 8:00 a.m. to 9:00 p.m. during week days and General Holidays except Chinese New Year subject to the control of the Noise Control Ordinance. This will prevent the inert materials from being disposed of in SENT Landfill and occupying valuable landfill space. From our past experience of operating the existing Tseung Kwan O Area 137 public filling area, the utilisation rate of the fill bank after 7:00 p.m. will be low. It is estimated that the average in-take rate after 7:00 p.m. will be less than 20 truckloads per hour. In view of the low utilisation rate and the remoteness of the site, noise impact caused by the operation of the fill bank at nighttime will not be significant.

8.4.4 The barging point and the C&DMSF within the fill bank will operate from 8:00 a.m. to 7:00 p.m. and they will be closed during General Holidays.

8.4.5 It is envisaged that the vehicles carrying out public fill to the fill bank will be using Wan Po Road. Therefore, the noise sensitive receivers along this road may be affected.

## 8.5 Traffic Generation

### 8.5.1 Land Traffic

Establishment of the fill bank will not generate much land traffic due to the limited works.

During the operation stage, delivery of public fill to the fill bank will generate considerable vehicular traffic (about 2,000 truckloads per day), which may cause land traffic impact on Wan Po Road. However, there is an existing public filling area operated under the Contract No. CV/97/01 “Tseung Kwan O Port Development at Area 137 Stage 2 – Construction of Seawalls and Reclamation” since December 1999. It is envisaged that the land traffic generated by the fill bank will be similar to the present situation.

During the decommissioning stage, it is estimated that only 10% of the stockpiled material will be delivered off site by vehicles and therefore the traffic impact will not be significant.

### 8.5.2 Marine Traffic

The establishment of the fill bank will not cause any marine traffic impact.

During the operation stage, barges will be used to transport the public fill collected from the barging points on Hong Kong Island to the fill bank. It is envisaged that about 8 barge loads will be generated per day.

At the decommissioning stage, it is estimated that about 90% of stockpiled material will be

delivered off site by barges and about 11 barge loads will be generated per day. The marine traffic is considered acceptable. In addition, delivery of public fill by barges will help resolve the air pollution problem caused by long haulage of stockpiled public fill to reclamation sites by trucks.

## 8.6 Waste Management

C&D waste will arise from a number of activities to be carried out by the contractor during establishment and operation of the fill bank and the C&DMSF. It may include wood from formwork, equipment and vehicle maintenance parts, materials and equipment wrappings, and C&D waste sorted out from the incoming public fill. Subject to the agreement of EPD, this C&D waste can be transported to the adjacent SENT Landfill as a designated outlet. Therefore, waste generated by the fill bank will not have major impact to the surrounding environment.

The fill bank is for the temporary stockpiling of public fill and, thus, there will not be any storage and transportation of hazardous materials or handling of spoil materials including potentially contaminated materials. The inert C&D materials generated at the establishment stage and the public fill received during the operation of the fill bank can be stored up for subsequent reuse in other reclamation and earth filling projects. This will prevent the materials from being disposed of in landfills and occupying valuable landfill space.

## 8.7 Visual Appearance

- 8.7.1 The nearest sensitive receivers are the residential developments at Siu Sai Wan on Hong Kong Island, the planned residential areas in Tseung Kwan O Areas 85 and 86, and the users of the Clear Water Bay Country Club. The visual effects of the establishment, operation and decommissioning of the fill bank and the operation of the C&DMSF will have to be assessed.
- 8.7.2 In order to stockpile 6 Mm<sup>3</sup> of public fill in Tseung Kwan O Area 137, the material will be filled up to a high of +30 mPD for most parts of the site. The profile of the fill bank is shown in the attached Plan No. P20164-27. The visual effects of the 25 m high stockpiles after incorporating the suitable mitigation measures will have to be assessed.
- 8.7.3 The stockpile of public fill is also visible to the users of the Clear Water Bay Country Park, in particular along the High Junk Peak Country Trail. During the operation and decommissioning stages, dump trucks and construction plant will be used on site to stockpile and remove the public fill. These construction activities will be visible to the users of the country trail. Upon completion of the operation stage, about 6 Mm<sup>3</sup> of public fill will be stockpiled on site. A feasible option is either to plant one/two rows of trees in planters placed on the top edge of the stockpile facing the country park or one/two rows of trees alongside the Trail so as to screen off the views of the trail walkers.
- 8.7.4 In order to provide a convenient outlet for public fill, the Fill Bank will be opened from 8:00 a.m. to 9:00 p.m. From 7:00 p.m. to 9:00 p.m., the utilisation rate of the facility is usually quite low and therefore, only a small area of about 0.5 hectares will be used for stockpiling public fill at nighttime. In this area, several spotlights will be provided for illumination. As such, it is expected that the glare at nighttime at the Fill Bank is not going to cause nuisance to the VSRs.

- 8.7.5 After the commissioning of the adjacent TVB Broadcast and Production Centre in the Tseung Kwan O Industrial Estate in early 2003, it is expected that the operation of the fill bank will be visible from the broadcast centre. It is necessary to provide temporary boundary wall along the northern boundary of the site to screen off the fill bank operation.
- 8.7.6 For the removal of stockpiled public fill at the decommissioning stage, it is estimated that about 90% of the stockpiled materials will be delivered off site by barges. As the barging point will be partially enclosed to screen the loading operations from the VSRs, the visual effects of the unloading operation will not be significant. Since the barging point will only be operated in the daytime, there will not be glare at nighttime at the barging point.
- 8.7.7 The operation hours of the C&DMSF are also from 8:00 a.m. to 7:00 p.m. and therefore, there will not be glare at nighttime at the sorting facility.

## 8.8 Ecology

Since the proposed site has been/will be formed by reclamation, there are no recognized sites of conservation importance and ecologically important habitats within the site area. It is also unlikely that species of conservation importance is present. A buffer zone of about 6 to 30 metres will be provided along the eastern boundary of the site to separate the adjacent Clearwater Bay Country Park. At the edge of the stockpile, temporary supporting structure will be constructed to delineate the boundary of the stockpile and to reduce the impact on the country park. Cut-off drains will be provided along the buffer zone to intercept the surface run-off either from the stockpiled public fill or the Clearwater Bay Country Park. It is expected that the ecology of the Country Park will not be affected. No further ecological assessment is required.

## 8.9 Cultural Heritage

Within the site for the fill bank, there is no cultural heritage site. However, the Junk Island House Ruin on Fat Tong Chau is located in close vicinity of the project area. As there are construction works near the heritage site, it will not be distributed. In order to prevent the workers from disturbing the Junk Island House Ruin accidentally, precautionary measures, such as erection of fencing along the site boundary for keeping the workers away from the heritage site, will be adopted under the project. As such, no further cultural heritage assessment is required.

## 9. **Major Elements of the Surrounding Environment**

- 9.1 The site is zoned 'Other Specified Uses' annotated 'Deep Waterfront Industry' on the approved Tseung Kwan O Outline Zoning Plan No. S/TKO/10.
- 9.2 Existing and planned sensitive receivers in the surrounding environment as shown on Plan No. P20164-26B include mainly the following:
- (a) Residents in the Island Resort and Fullview Garden at Siu Sai Wan;
  - (b) Residents of the planned residential developments at Tseung Kwan O Areas 85 and 86;
  - (c) TVB Broadcast and Production Centre in Tseung Kwan O Industrial Estate; and



(d) Users of Clearwater Bay Country Park.

9.3 Part of the site for the fill bank falls within the 250 m “Consultation Zone” of the SENT Landfill. The extent of the Consultation Zone is shown on the Plan No. P20164-26B. In accordance with the ProPECC Practice Note, “Landfill Gas Hazard Assessment for Developments adjacent to Landfills” (PN 3/96) and “Landfill Gas Hazard Assessment Guidance Note” (EPD TR 8/97), a Landfill Gas Hazard Assessment has to be carried out.

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

10.1 Measures to minimize environmental impacts are as follows:

### **10.2 Air Quality**

10.2.1 The proposed site for the fill bank is situated at a location approximately 1.9 kilometres south of the planned residential areas at Tseung Kwan O Areas 85 and 86 and 1.8 kilometres east of the Island Resort and Fullview Garden at Siu Sai Wan. Though the stockpiling and removal of public fill, and the operation of the C&DMSF involve considerable earthworks, it is expected with the implementation of suitable mitigation measures dust nuisance will not be a cause of concern. Air Pollution Control Ordinance will also be followed to ensure the impact on air quality, if any, is kept to an acceptable standard.

10.2.2 Dust can be mitigated by the following measures:

- paving the major access road and frequent spraying of haul roads
- enclosing the unloading facility of the barging point by partial enclosure and providing dust suppression measures
- water spraying of stockpiles of public fill
- water spraying of sorting and crushing operations at the C&DMSF
- installing wheel washing facilities for departing vehicles.

10.2.3 In design of the level of unloading facility of the barging point, the drop height from vehicles to barge would be minimized as far as possible to reduce dust generation. Mechanical road sweepers can also be used within the site and on surrounding roads to remove the dirt left on the road.

10.2.4 In view of the proximity of the adjacent TVB Broadcast and Production Centre, a buffer zone of 100 m would be allowed between the edge of the stockpile and the boundary of the production centre. In this buffer zone, no dusty material will be stockpiled. In addition, the slope surface of the stockpile facing the production centre will be protected by spray concrete, grass, tarpaulins or special binding agent to prevent the dusty material from blowing away.

10.2.5 Air pollution caused by exhaust gas emissions from vehicles delivering and manoeuvring on site can be controlled by keeping the vehicle queuing time to a minimum and switching off vehicle engines during queuing whenever possible. In view of the remoteness of the proposed site, air pollution caused by the vehicle emissions will not be a problem.

10.2.6 The fugitive dust arising from the trucks carrying public fill will affect the ASRs along the public roads leading to Tseung Kwan O Area 137. It is required under the Air Pollution

Control (Construction Dust) Regulation that the trucks carrying dusty materials should be properly covered when they are leaving the construction sites. This will help to mitigate the dust nuisance caused by trucks carrying dusty materials.

10.2.7 Only trucks with a valid Dumping Licence are allowed to use our public filling facilities including the fill bank. It is required in the Dumping Licence that the truck owners or the drivers carrying dusty materials in their trucks should have the materials covered with suitable impervious sheeting, otherwise the truck can be refused from using our public filling facilities. This administrative measure can help to mitigate the dust nuisance caused by trucks carrying dusty materials to the fill bank.

### 10.3 Water Quality

10.3.1 A proper drainage system will be provided at the fill bank and at the C&DMSF to collect surface run-off. The drainage system will incorporate silt traps and oil traps at appropriate locations to remove sand, silt and oil carried by the surface run-off. These traps will be frequently cleaned and maintained. As a wheel-washing facility will be provided near the exit to wash the wheels of the trucks before they are leaving the site, muddy water from the wheel-washing facility will be treated prior to discharge. The effluent arising from the site will be treated to the required standard of the Water Pollution Control Ordinance and will be discharged into the existing drainage system under a licensing control of the Director of Environmental Protection.

10.3.2 As there is no communal sewer in Tseung Kwan O Area 137, wastewater from site facilities will be collected by using a septic tank and removed regularly by using vacuum tankers. It is expected that the wastewater generated by the work force will not have any impact on the water quality.

10.3.3 The wastewater arising from barge operation such as spent spray water produced from dust suppression would be contained in the hoppers of the barges. Barge effluent, if any, should be properly contained as far as practicable and diverted to adequately designed treatment facilities and treated to the required standard prior to discharge.

10.3.4 During tipping of public fill into the barges, the partial enclosure at the barging point can prevent the accidental losses of public fill and refuse into the sea. In case floating refuse/debris is found near the barging point, a waste collection vessel will be used to remove the floating materials.

### 10.4 Noise

10.4.1 Noise will be generated by vehicles and construction plant during the establishment, operation and decommissioning of the fill bank, the operation of the barging point and C&DMSF. The nearest noise sensitive receivers are the residents in the Island Resort and Fullview Garden who are located about 1.8 kilometres away from the western site boundary. Adverse noise impacts are not anticipated due to the great distance between the site and the sensitive receiver.

10.4.2 The establishment of the fill bank, the barging point and the C&DMSF will be carried out in non-restricted hours. The daytime construction noise criteria stipulated in ProPECC Note 2/93 will be observed.

10.4.3 The barging point and the C&DMSF will only operate during non-restricted hours.

Similarly, the daytime construction noise criteria stipulated in ProPECC Note 2/93 will be followed.

10.4.4 It is necessary to operate the fill bank in restricted hours. Noise generated by vehicles and construction plant in restricted hours will be controlled by the Noise Control Ordinance. Proper control with respect to the permitted hours of operations, type and number of plant/equipment items allowed to be used and the implementation of noise control measures will protect nearby noise sensitive receivers from excessive noise exposure, if any.

10.4.5 The traffic noise impact to the Noise Sensitive Receivers along Wan Po Road will be assessed in the Environmental Impact Assessment (EIA). In addition, noise mitigation measures will also be suggested in the EIA.

#### 10.5 Waste Management

10.5.1 Waste will be generated from the establishment, operation and decommissioning of the fill bank. In addition, C&D waste will be sorted from mixed C&D material. Through proper waste management practices on site, including formulation of waste management plan, waste segregation and storage by category on site, avoidance/minimization, reuse and recycling of construction material, monitoring and record the proper disposal of waste generated by trip-ticket system, it is expected that no adverse impact due to waste generation and management will be encountered.

#### 10.6 Visual Appearance

10.6.1 On the slope surfaces of the stockpiles, coloured spray concrete will be applied for slope protection for enhancing the visual compatibility with surroundings, especially the adjacent Clearwater Bay Country Park. Graphic illustrations of the stockpiles together with the mitigation measures will be prepared to assess the residual visual impacts of the fill bank.

#### 10.7 Landfill Gas Protection Measures

10.7.1 As part of the fill bank is within 250 m Consultation Zone of SENT Landfill, a landfill gas hazard assessment in accordance with the ProPECC Paper No. PN 3/96 and Landfill Hazard Assessment Guidance Note both issued by the Environmental Protection Department is required. The establishment and operation of the fill bank mainly involves stockpiling of public fill on the reclaimed land in Tseung Kwan O Area 137. Within the Consultation Zone, surface channels will be used for collecting surface run-off. As such, no underground drainage and sewerage systems including underground pipelines and chambers will be constructed within the Consultation Zone.

10.7.2 In order to minimise the potential risk of the landfill gas, the site offices for the contractor and the resident supervising staff will be located outside the Consultation Zone. Nevertheless, an entrance and exit office with an inspection platform will be located at the site entrance, which is at the end of Wan Po Road. Usually, a container office will be used as the entrance and exit office. In order to avoid migration of landfill gas into the container, it will be supported by a raised hollow platform. This will allow passive ventilation and avoid accumulation of landfill gas, if any, beneath the container office.

#### 10.8 Possible Severity, Distribution and Duration of Environmental Effects

The possible severity, distribution and duration of environmental effects and further implications are summarized below:

Type of Impact	Effects	Severity	Distribution	Duration
Air Quality	Dust emission from construction activities	Slightly affected	Local	About 6 months
	Dust emission from stockpiling of public fill	Moderately affected	Local	About 19 months
	Dust emission from removal of public fill	Slightly affected	Local	About 45 months
Noise	Noise nuisance from construction plant and vehicles	Slightly affected	Local	About 70 months
Visual	Visual impact from the exposed surface of stockpiles before surface protection works	Slightly affected	Local	About 6 months
	Visual impact of the operation of the barging point	Slightly affected	Local	About 45 months

#### 10.9 Public Consultation to Date

Nil

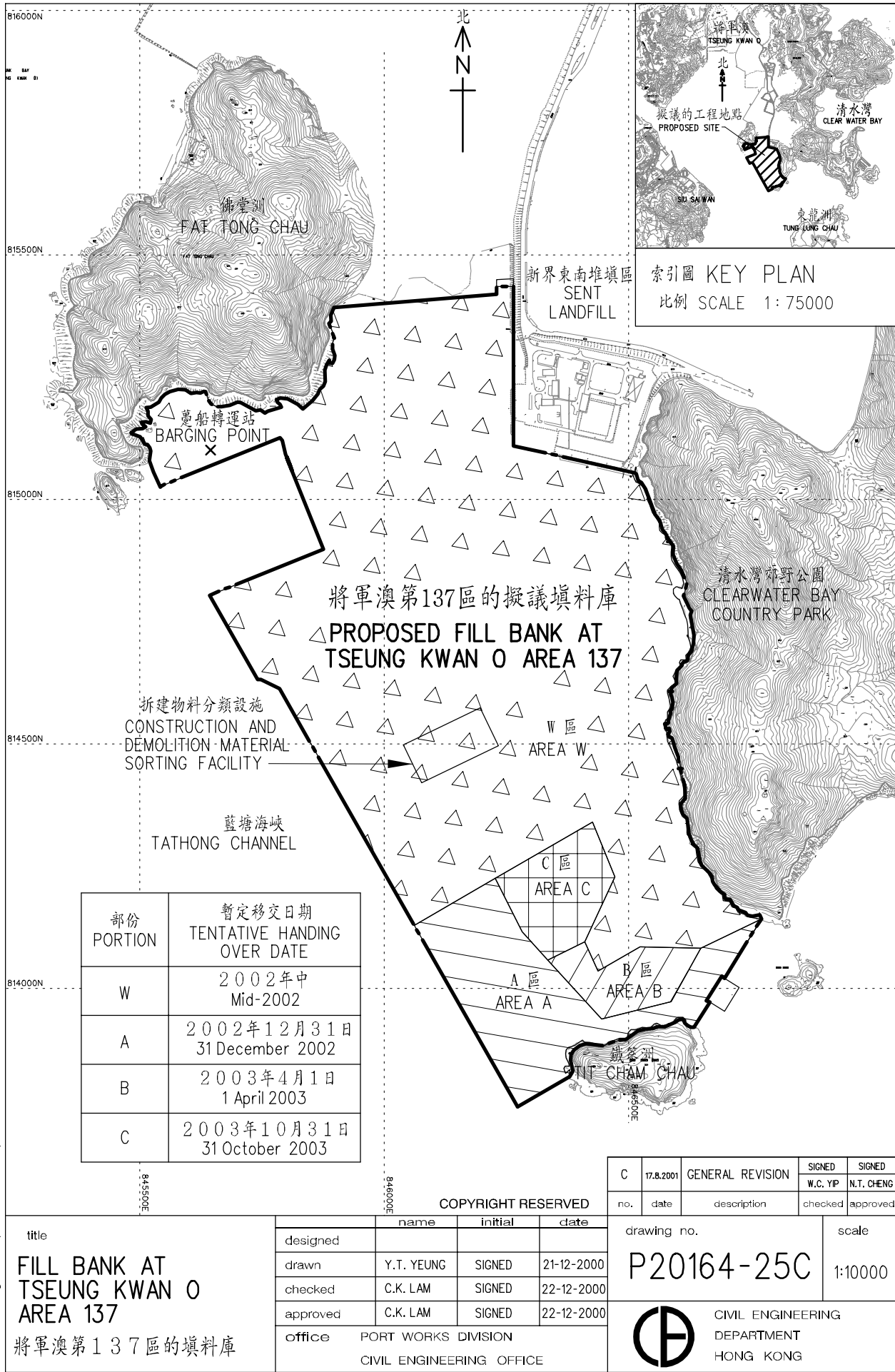
#### 10.10 History of Similar Project

There is no similar previous project but similar individual construction activities have been carried out in other construction projects. The stockpiling of public fill is similar to the formation of surcharging mounds in the Contract No. CV/97/01 "Tseung Kwan O Port Development at Area 137 Stage 2 – Construction of Seawalls and Reclamation" while the barging out operation during the removal of stockpiling public fill is similar to the existing operations at Quarry Bay and Sai Ying Pun Public Filling Barging Points. No insurmountable environmental impacts in respect of the corresponding construction activities have been encountered.

#### 11. Use of Previously Approved EIA Reports

No previously approved EIA report can be used.

Port Works Division  
Civil Engineering Department  
August 2001




部份 PORTION	暫定移交日期 TENTATIVE HANDING OVER DATE
W	2002年中 Mid-2002
A	2002年12月31日 31 December 2002
B	2003年4月1日 1 April 2003
C	2003年10月31日 31 October 2003

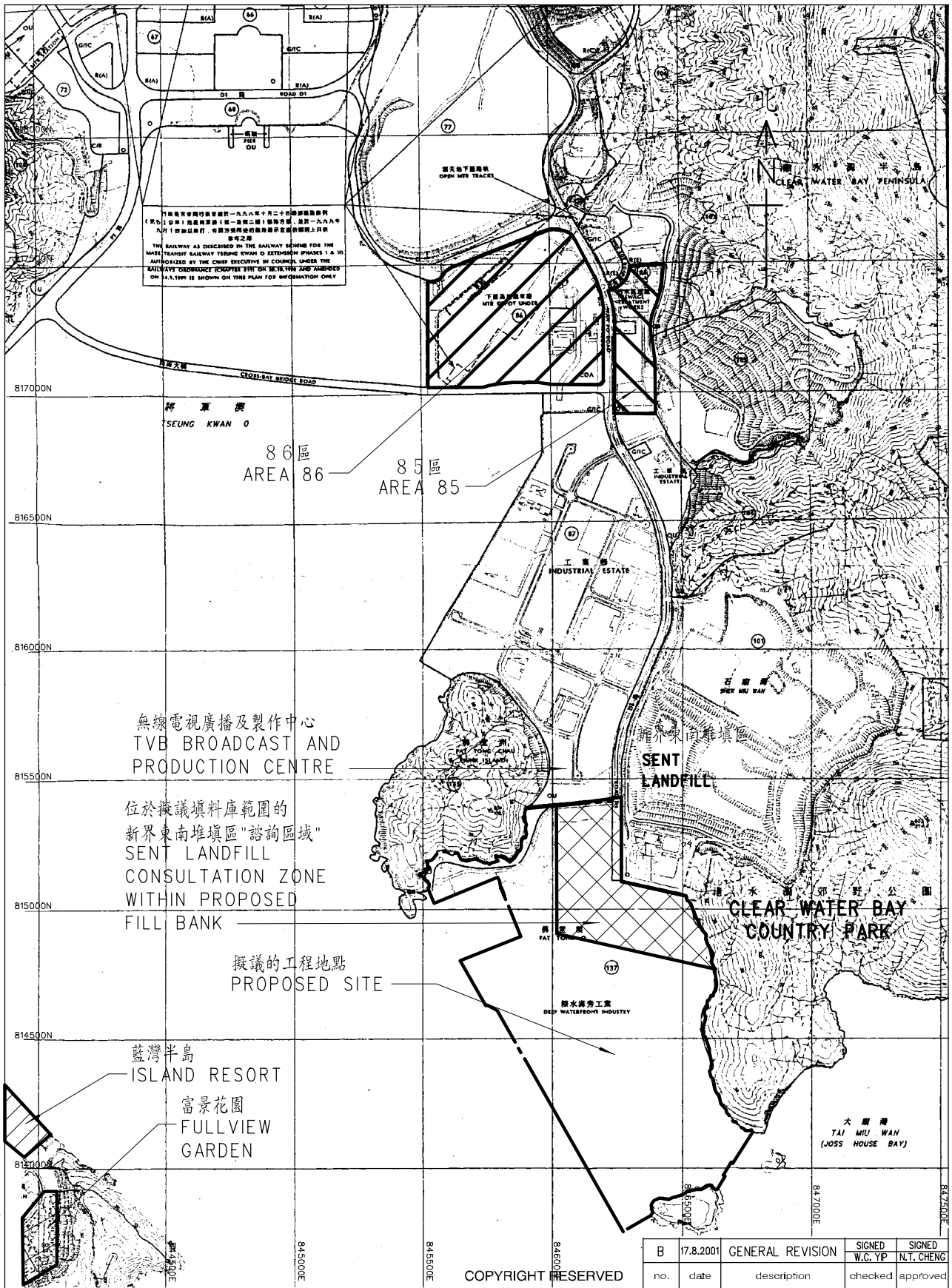
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no.	date	description	checked	approved
			W.C. YIP	N.T. CHENG

title  
**FILL BANK AT  
 TSEUNG KWAN O  
 AREA 137**  
 將軍澳第137區的填料庫

	name	initial	date
designed			
drawn	Y.T. YEUNG	SIGNED	21-12-2000
checked	C.K. LAM	SIGNED	22-12-2000
approved	C.K. LAM	SIGNED	22-12-2000
office	PORT WORKS DIMSION CIVIL ENGINEERING OFFICE		

drawing no. **P20164-25C** scale 1:10000

 CIVIL ENGINEERING DEPARTMENT HONG KONG




title  
**FILL BANK AT  
 TSEUNG KWAN O AREA 137  
 - EXISTING AND PLANNED  
 SENSITIVE RECEIVERS**  
 將軍澳第137區的填料庫  
 - 現存及計劃中易受影響受體位置

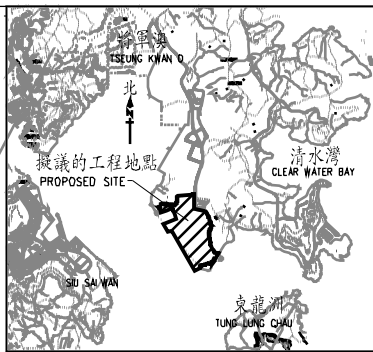
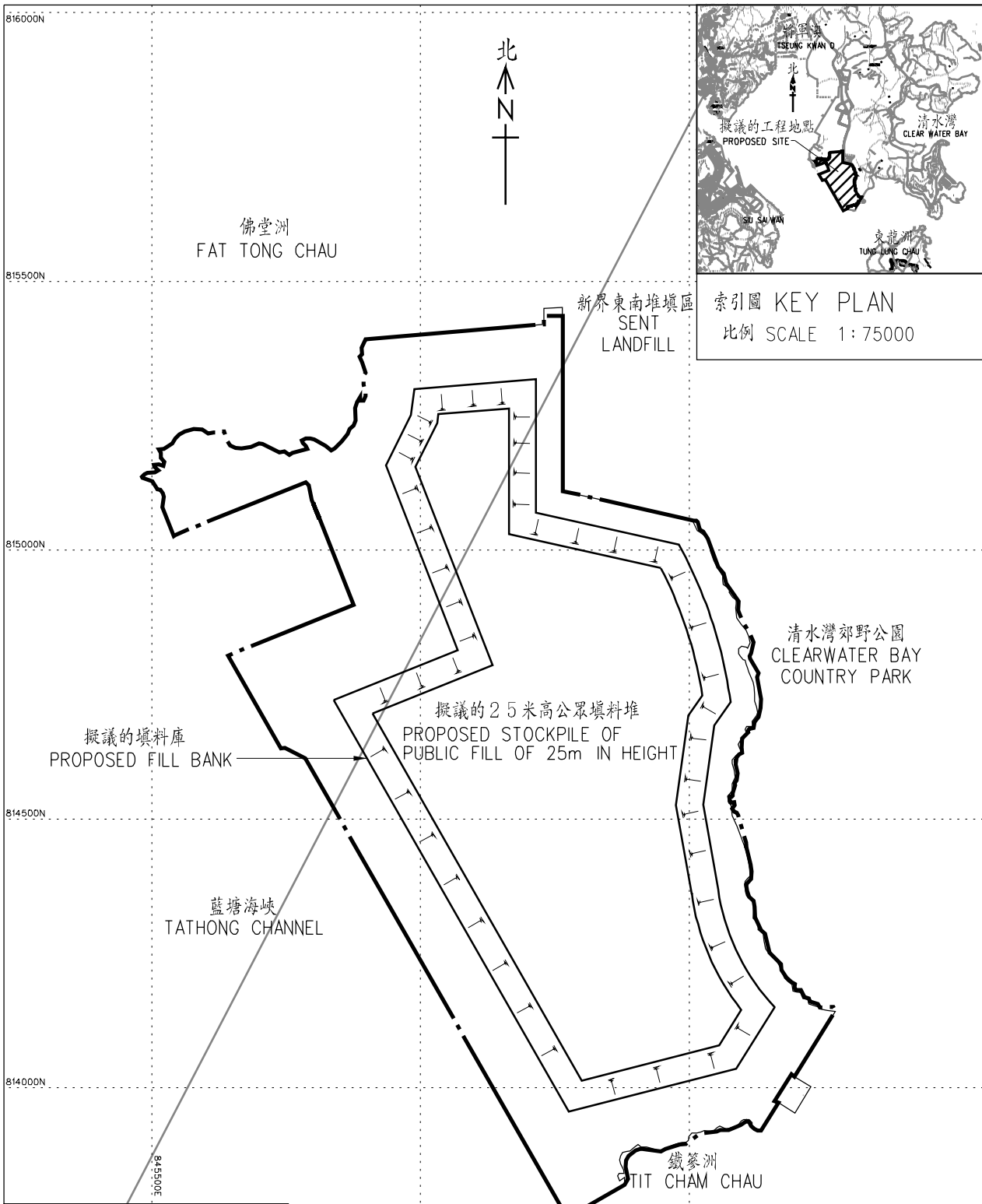
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approved	N.T. CHENG	SIGNED	14-6-2001
office	PORT WORKS DIVISION CIVIL ENGINEERING OFFICE		

no.	date	description	SIGNED W.C. YIP checked	SIGNED N.T. CHENG approved
B	17.8.2001	GENERAL REVISION		

drawing no.	scale
<b>P20164-26B</b>	1:20000


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索引圖 KEY PLAN  
比例 SCALE 1:75000

LEGEND 圖例 :

	1 比 2 斜坡
	1 IN 2 SLOPE

title  
**FILL BANK AT TSEUNG KWAN O AREA 137**  
**- PROFILE OF STOCKPILE OF PUBLIC FILL**  
將軍澳第 1 3 7 區 的 填 料 庫  
— 公 眾 填 料 堆 的 地 貌

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	name	initial	date
designed			
drawn	S.K. CHAN	SIGNED	16.8.2001
checked	W. C. YIP	SIGNED	17.8.2001
approved	N. T. CHENG	SIGNED	17.8.2001
office	PORT WORKS DIVISION CIVIL ENGINEERING OFFICE		

no.	date	description	checked	approved

drawing no. **P20164-27** scale 1:10000

CIVIL ENGINEERING DEPARTMENT HONG KONG

plot scale : 10.945121:1,000000  
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e:\drawing\_tools\pentable\laser.pen