
前堅尼地城焚化爐、屠房及毗鄰用地土地除污工程
**Ground Decontamination Works at the Site of Ex-Kennedy
Town Incineration Plant/Abattoir and Adjoining Area**

二零一六年二月廿九日
29 February 2016

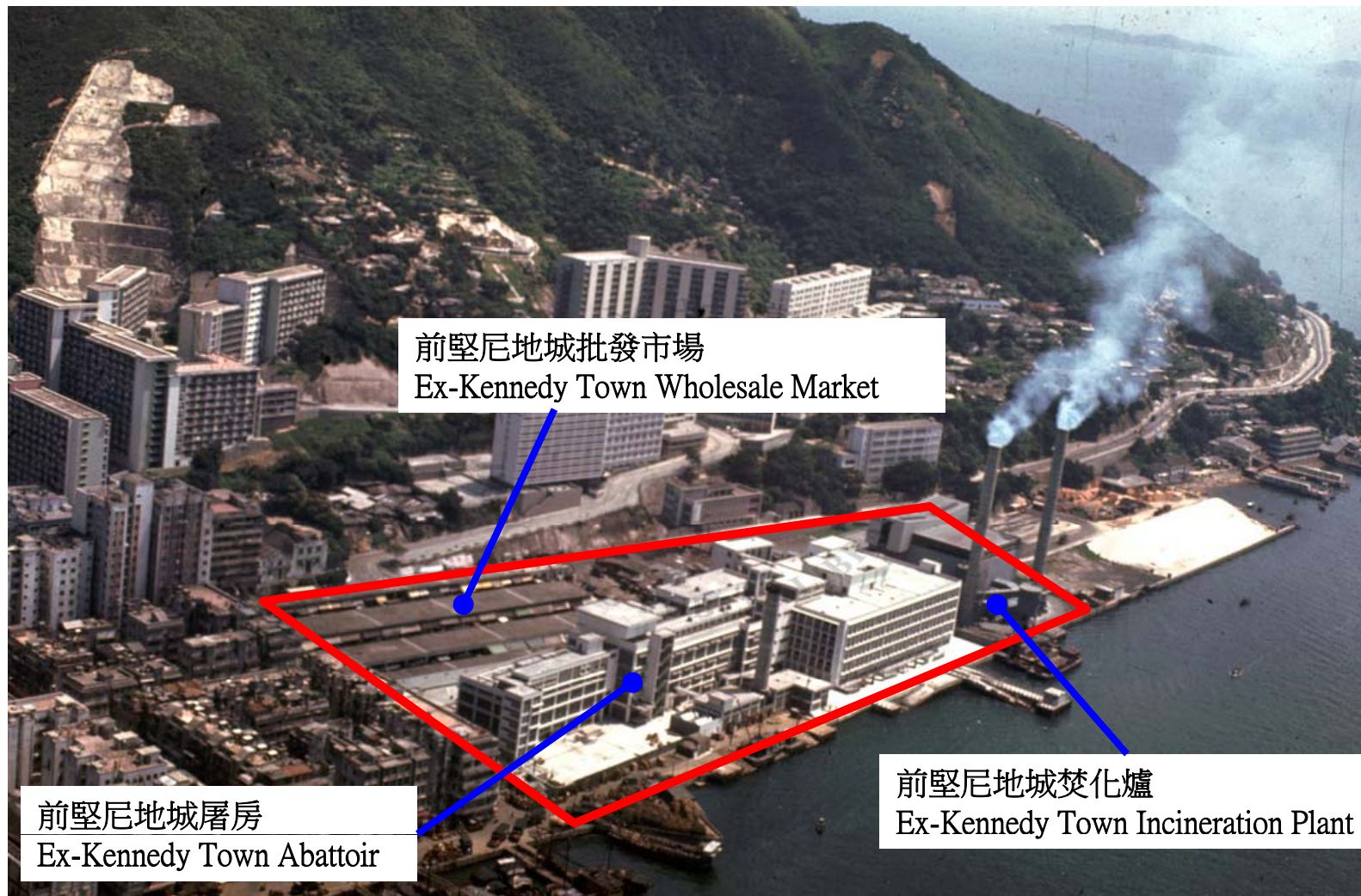


土木工程拓展署
Civil Engineering and Development Department



莫特麥克唐納
Mott Macdonald Hong Kong Limited

六十年代的堅尼地城 Kennedy Town in 1960s



背景資料

Background Information

- 堅尼地城焚化爐在1993年停止運作; 堅尼地城屠房則在1999年關閉。
The Kennedy Town Incineration Plant (KTIP) ceased to operate in 1993. The Kennedy Town Abattoir (KTA) was closed in 1999.
- 堅尼地城批發市場在1990年停止運作，而該址由1994年至1998年用作臨時停車場。因應中西區區議會的要求，加多近街臨時花園於1999年以臨時性質開放予公眾使用，當時的用意是在制訂永久用途前避免閒置有關用地。
The Kennedy Town Wholesale Market ceased to operate in 1990. The site was used as a temporary car park from 1994 to 1998. Cadogan Street Temporary Garden (CSTG) was open in 1999 on a temporary basis upon the request of Central and Western District Council (C&W DC) pending the formulation of a long-term development of the site.

背景資料

Background Information

- 中西區區議會曾要求政府盡早完成拆卸項目，並在清拆焚化爐及屠房時一併進行土地除污工程。

The C&WDC had once requested the Government to complete the decommissioning project as soon as possible and to carry out the ground decontamination works together with the demolition of incineration plant and abattoir in one go.

- 不過，政府其後得到中西區區議會同意，在2009年拆卸工程完成後，把有關用地批予香港鐵路有限公司用作臨時施工區，以建造西港島線。

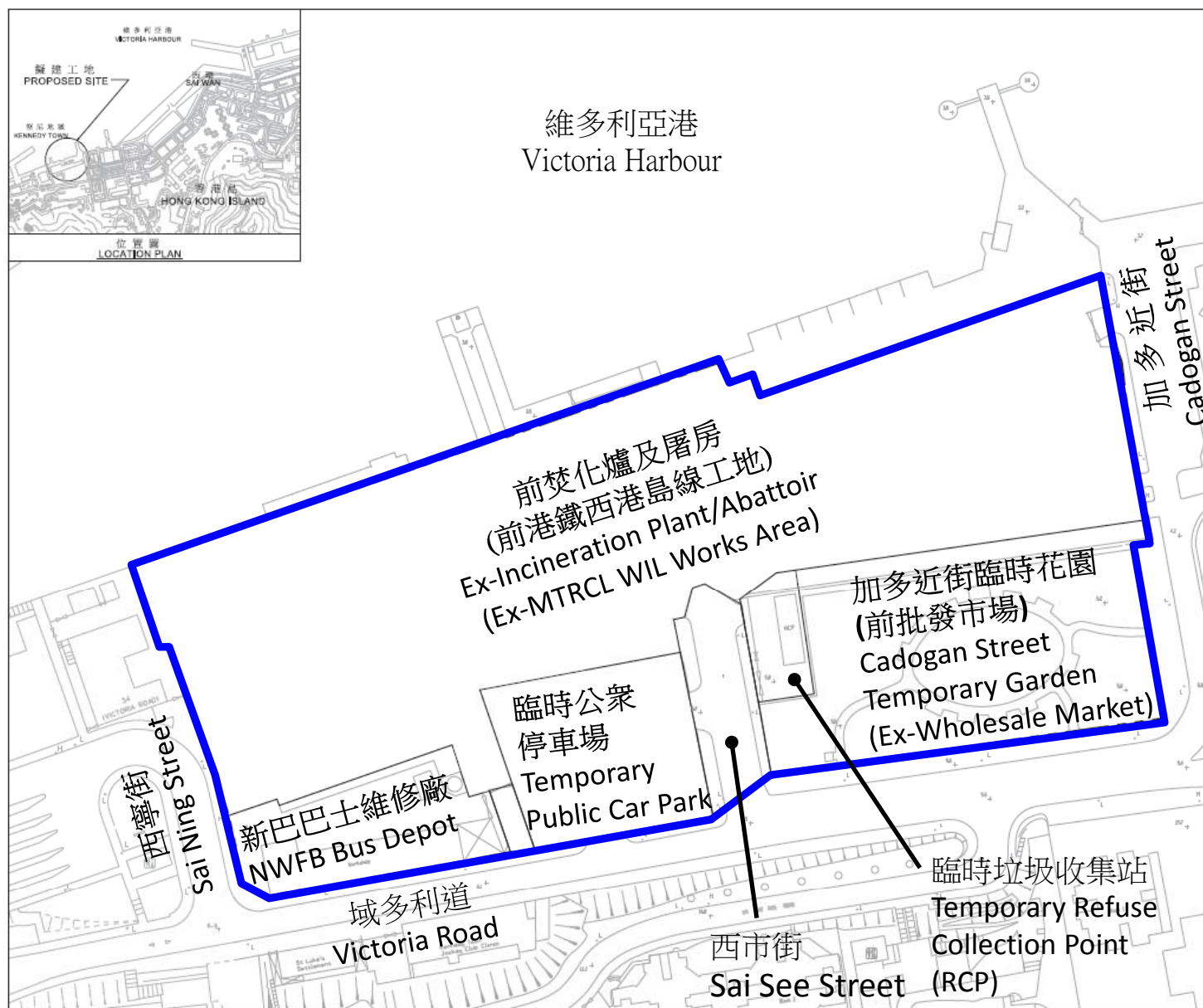
However, the C&WDC subsequently agreed the Government to allocate the site to MTRCL as the temporary works area for the construction of West Island Line (WIL) after the completion of demolition works in 2009.

- 香港鐵路有限公司已把西港島線施工區交還政府，我們計劃在獲得立法會撥款後隨即展開除污工程。

MTRCL has returned the WIL works area to the Government. The ground decontamination works were scheduled to commence immediately after the approval of funding by the LegCo.

土地除污工程範圍

Ground Decontamination Works Boundary



現時的工地情況 Existing Site Condition



土地除污工程 **Ground Decontamination Works**

- 這項拆卸工程計劃(包括除污工程)屬於《環境影響評估條例》(第499章)附表2的指定工程項目，當局須就有關工程申領環境許可證。

The decommissioning project (including decontamination works) is a designated project under Schedule 2 to the Environmental Impact Assessment (EIA) Ordinance (Cap. 499) and an Environmental Permit (EP) is required for the project.

- 環境影響評估報告及工地勘測的結果顯示，前焚化爐、前屠房及毗鄰用地(包括加多近街臨時花園)的地下土壤已受污染，根據環境許可證的發證條件，在重新發展該用地前必須進行土地除污工程。

The EIA report and the site investigation indicate that the underground soil within the site of ex-KTIP, ex-KTA and the adjoining area (including the Cadogan Street Temporary Garden) has been contaminated. In accordance with the EP conditions, decontamination of the site is a pre-requisite for its future development.

土地除污工程

Ground Decontamination Works

整個工地的主要勘測結果

Key Findings of Site Investigation of the Whole Site

探土孔的數目： Number of boreholes:	189
受污染土壤的範圍： Extent of contaminated soil:	分佈於不同深度， 最深達12米 Present at various depths down to max. 12 metres (m)
只受重金屬污染土壤的總量： Quantity of soil contaminated with Heavy Metals only	約57,000立方米 About 57,000 cubic metres (m ³)
只受碳氫化合物污染土壤的總量： Quantity of soil contaminated with Hydrocarbons only:	約17,000立方米 About 17,000 m ³
同受重金屬及碳氫化合物污染土壤的總量： Quantity of soil contaminated with both Heavy Metals and Hydrocarbons:	約38,000立方米 About 38,000 m ³

土地除污工程

Ground Decontamination Works

臨時花園的主要勘測結果

Key Findings of Site Investigation of the Temporary Garden

探土孔的數目： Number of boreholes:	18
受污染土壤的範圍： Extent of contaminated soil:	分佈於不同深度， 最深達9米 Present at various depths down to max. 9 metres (m)
只受重金屬污染土壤的總量： Quantity of soil contaminated with Heavy Metals only	約7,000立方米 About 7,000 cubic metres (m ³)
只受碳氫化合物污染土壤的總量： Quantity of soil contaminated with Hydrocarbons only:	約5,500立方米 About 5,500 m ³
同受重金屬及碳氫化合物污染土壤的總量： Quantity of soil contaminated with both Heavy Metals and Hydrocarbons:	約9,400立方米 About 9,400 m ³

除污的方法

Decontamination Methods

受重金屬污染的泥土：英泥凝固法

Soil contaminated with **Heavy Metals**: **Cement Solidification**

- 英泥凝固法的過程需在污染泥土加入英泥和水，鎖定重金屬，使其無法從泥土釋出。

Cement solidification is a process in which cement and water are mixed with contaminated soil such that heavy metals are bonded together and will not leak from soil.

- 處理後的泥土須測試合格後才可回填工地。
Treated soil will be tested prior to backfilling on site.



除污的方法

Decontamination Methods

受碳氫化合物污染的泥土：生物堆置法

Soil contaminated with **Hydrocarbons**: **Biopiling**

- 生物堆置法是將受污染的土壤堆積起來(生物堆)，並透過空氣流動刺激微生物的帶氧活動，以生物降解的方式分解土壤中的碳氫化合物。
The method of biopiling involves heaping contaminated soil into piles (or biopiles) and stimulating aerobic microbial activity to break down the hydrocarbons by biodegradation within the soil through aeration.
- 處理後的泥土須測試合格後才可回填工地。
Treated soil will be tested prior to backfilling on site.



受影響的樹木 Affected Trees

- 工地勘測結果顯示整個工地（包括加多近街臨時花園）的地下土壤已受污染。
Site Investigation indicated that the underground soil of the whole site (including Cadogan Street Temporary Garden) has been contaminated.
- 原址保留受污染樹木即同時保留樹膽裏的污染泥，並不符合環境許可證的要求。
樹木亦會嚴重阻礙除污工程。
On-site tree preservation will retain the contaminated soil in the root balls which does not comply with the requirements of the Environmental Permit. The trees will also obstruct the decontamination works.
- 把樹木移植到其他地方即同時把污染泥帶走，亦不符合環境許可證的要求。
Tree transplantation will transfer the contaminated soil to the recipient locations which also does not comply with the requirements of the Environmental Permit.

受影響的樹木 Affected Trees

- 如果強行把樹膽用水沖洗，使污染泥土與樹根分開會破壞細小的樹根，亦會把附於樹根表面的微生物清除，其生存率將非常低。

Washing off the contaminated soil from the roots will cause physical injury and loss of fine roots and also wash away those micro-organisms associated with the tree roots. The survival rate of the trees after such operations will be extremely low.

- 有些樹木更依附在廢棄的建築物生長，其樹膽內部分的泥土亦受到污染。
Some of the trees adhere to the disused structures with part of the rootballs contaminated.

- 須移除所有廢棄的建築物以進行除污工程。
All disused structures will have to be removed for carrying out decontamination works.

- 建議全部樹木將與廢棄的建築物一併清除。
All the trees are recommended to be removed with the disused structures.

- 承諾於區內的合適地方或將來的海濱長廊進行補償植樹。
Compensatory tree planting will be carried out at suitable locations in the district or the future waterfront promenade.

樹木移除及補償種植建議

Tree Felling and Compensatory Planting Proposal

政府內部審核

Government Internal Vetting

2015年2月提交建議予地政總署

Submission of proposal to Lands Department in February 2015

建議由康樂及文化事務署的樹木組審核

Vetting by Tree Team of Leisure and Culture Services Department

2015年5月由地政總署批准該建議

Proposal approved by Lands Department in May 2015

樹木移除及補償種植建議

Tree Felling and Compensatory Planting Proposal

環境影響評估條例

Environmental Impact Assessment Ordinance (EIAO)

環評報告包括景觀影響評估

Landscape Impact Assessment included in EIA Report

環評報告於2015年1月29日至2月27日供公眾查閱

EIA Report exhibited for public inspection from 29 January to 27 February 2015

徵詢環境諮詢委員會

Consultation with Advisory Council on the Environment

環保署署長在2015年4月1日批准該環評報告

EIA report approved by Director of Environmental Protection under EIAO on 1 April 2015

公眾諮詢

Public Consultation

就建議諮詢中西區區議會、立法會發展事務委員會及工務小組委員會

Consultation of C&WDC, LegCo Panel on Development and PWSC on the proposal

委員普遍不反對有關建議

Members in general did not object to the proposal

受影響的臨時社區設施

Affected Temporary Community Facility

- 在設計階段，我們明白土地除污工程難免會影響工地內的臨時社區設施（包括公眾停車場、垃圾收集站及加多近街臨時花園）。
During the design stage, we were fully aware of the likely disruption to the temporary community facilities (including the public car park, refuse collection point and Cadogan Street Temporary Garden).
- 可惜區內沒有合適的地方重置受影響的臨時社區設施。
However, there is no suitable sites available in the district to reprovision the affected temporary community facilities.
- 運輸署和食物環境衛生署因應高需求量，認為在除污工程期間必須維持臨時公眾停車場及垃圾收集站的服務。
Due to the large service demand, Transport Department (TD) and Food and Environmental Hygiene Department (FEHD) consider it necessary to maintain the services of public car park and refuse collection point.

擬議的除污工程方案

Proposed Decontamination Option

- 在平衡施工期對附近居民的潛在環境影響及臨時社區設施的需求，當局提議採用在工地內保留/重置臨時公眾停車場及垃圾收集站的方案，而工期約為七年。
To strike a balance amongst the potential environmental impacts to nearby residents and the availability of temporary community facilities, the option of retaining/reprovisioning the temporary car park and refuse collection point on site was recommended for implementation. The works duration will be about 7 years.
- 雖然加多近街臨時花園的污染泥土不會對附近居民及一般公園使用者構成即時風險，但仍應盡快消除土地污染對健康的隱患，以改善社區環境及為未來土地發展作準備。
Although there is no imminent risk to the nearby residents and the users of CSTG, it is imperative to commence the ground decontamination works and remove the potential health risks as early as possible so as to provide a clean environment for the local community and prepare for future development of the site.
- 在關閉加多近街臨時花園後，居民可使用附近的加惠民道花園、卑路乍灣公園、科士街遊樂場、士美非路休憩處及堅尼地城臨時遊樂場。
After the closure of Cadogan Street Temporary Garden, the local residents can make use of the nearby Ka Wai Man Road Garden, Belcher Bay Park, Forbes Street Playground, Smithfield Sitting-out Area and Kennedy Town Temporary Recreation Ground.

卑路乍灣公園
Belcher Bay Park

堅尼地城臨時遊樂場
Kennedy Town Temporary
Recreation Ground

加多近街臨時花園
Cadogan Street Temporary Garden

加惠民道花園
Ka Wai Man Road Garden

科士街遊樂場
Forbes Street
Playground

士美非路休憩處
Smithfield
Sitting-out Area

公眾諮詢 Public Consultation

我們已諮詢相關持份者(詳情如下):

We have consulted the relevant stakeholders (details as follows):

持份者 Stakeholders	日期 Dates
中西區區議會 Central and Western District Council (C&WDC)	2013年5月，2015年3月 May 2013, Mar 2015
中西區區議員舉辦的公眾座談會 Public forums organised by C&W DC members	2015年4月，2015年6月 Apr 2015, Jun 2015
泓都業主委員會舉辦的地區事務座談會 District Affair Forums organised by The Merton Owners' Committee	2013年11月，2014年12月， 2015年5月，2016年1月 Nov 2013, Dec 2014, May 2015, Jan 2016
立法會發展事務委員會 Legislative Council (LegCo) Panel on Development	2015年4月 Apr 2015
立法會工務小組委員會 Legislative Council (LegCo) Public Works Sub-Committee	2015年6月 Jun 2015

公眾諮詢結果

Results of Public Consultation

- 中西區區議員、立法會議員及公眾普遍支持建議的土地除污工程及其7年計劃的安排。

The C&W DC and LegCo Members and the public generally support the ground decontamination works with a 7-year programme.

- 回應有關人士的要求，我們將加強環境緩解措施並會成立工程聯絡小組以加強相互的溝通。

In response to their request, we will provide more environmental mitigation measures and establish a works liaison group to strengthen the bilateral communication.

- 就最近“守護堅城關注組”的訴求，我們已詳細回應他們的意見。
As regards the recent request of “Concern Group for Protecting Kennedy Town”, we have already issued replies to address their comments.

土地除污工程資料摘要

Key Information of Ground Decontamination Works

- 工地面積：
Site Area: 約 3 公頃
About 3 hectares
- 污泥數量：
Quantity of Contaminated Soil: 約 11 萬立方米
About 110,000 cubic metres
- 總挖掘量：
Excavation Volume Required: 約18 萬立方米
About 180,000 cubic metres
- 保留/重置設施：
Facilities to be retained/reprovisioned: 臨時垃圾收集站和臨時公眾停車場
Temporary Refuse Collection Point and Public Car Park
- 工程開展時間：
Schedule of Commencement of Works: 約2016年年中
Mid 2016
- 工期：
Works Duration: 約 7 年
About 7 years

多謝
Thank You



土 木 工 程 拓 展 署
Civil Engineering and Development Department



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Mott Macdonald Hong Kong Limited