

渠務署

工程項目 - 中西區及灣仔西部污水收集系統
第 2 階段第 2B 期改善工程

目的

1. 本文件旨在告知各議員和尋求各議員支持在中西區進行的渠務改善工程。

背景

2. 中西區及灣仔西部污水收集系統整體計劃（計劃）是政府籌劃的 16 個污水收集系統計劃之一。計劃的目的在確定各區所需的污水收集設施，以應付人口需求及改善沿岸的水質。中西區及灣仔西部污水收集系統計劃研究已於 1993 年 8 月完成，並已確定一套污水收集系統改善工程的方案，以改善及更新區內的污水收集系統，配合日後的發展需要。
3. 由於區內現時樓宇密集，路窄車多，故改善工程須分階段進行，以免對居民及交通造成嚴重影響。因此，中西區及灣仔西部污水收集系統的改善工程，分為兩個階段進行，第一階段和第二階段。
4. 第一階段工程包括有四份工程合約，分別建造由堅尼地城沿海傍而建至灣仔東部的污水幹渠；建造中區及灣仔東污水泵房；建造中西區和灣仔西部上游集水區污水渠工程。除預計於 2004 年年底完成的中區污水泵房外，其他工程都已完成。
5. 第二階段工程是在中西區及灣仔西部重建 22.4 公里的污水渠和修正舊污水渠的接駁不當情況。該階段包括三份工程合約，首兩份合約工程 DC/2001/04 及 DC/2001/08 已分別在 2001 年 10 月和 2002 年 11 月動工，並預計在 2005 年 1 月及 2006 年 2 月完成。
6. 第二階段工程的第三份合約工程 DC/2002/13 是中西區及灣仔西部污水收集系統計劃的最後一份合約。包括在中西區重建 9.5 公里長的污水渠和修正舊污水渠的接駁不當情況。建造工程將於 2004 年 8 月展開，預計於 2008 年 5 月竣工。顯示建議工程位置的工地平面圖載於附件。

7. 本署曾於 2003 年 12 月 22 日向立法會環境事務委員會呈交討論文件就工程合約 DC/2002/13 介紹其污水系統工程對於改善環境的作用及對交通可能造成之影響。委員亦普遍支持該項工程。
8. 渠務署將會在 2004 年 2 月 4 日提交工程項目給財務委員會工務小組委員會討論，並將會在 2 月 20 日提交該項目給財務委員會，該項目提升為甲級工程。

對交通影響

9. 在市區街道進行渠務工程，無可避免會對交通造成影響。為了儘量減輕工程對交通的影響，工程會被分段施工。按合約規定，承建商必須完成指定的部份工程，才可以開始在同一條街上的另一部份。合約亦規定在某些路段的工程，必須在非繁忙時段施工，在交通繁忙時間，須將受影響的路面覆蓋及開放，以保持交通暢通。在一些繁忙的道路交界或電車軌下的渠務工程，將會採用無坑挖掘方法。
10. 部份渠務工程，須在‘日間禁止工程道路’如干諾道中，和其它中環區內非常繁忙的道路進行。在這些路段，日間工作會對交通產生嚴重影響，是不可行的。故此，工程必須在夜間施工。這些道路都是商業中心，夜間施工不會造成滋擾。本署的顧問公司已作出詳細的噪音評估，及和環保署商討後，建議以下街道之部份路段可作通宵施工：

- 遮打道介乎會所街與雪廠街
- 干諾道中近康樂廣場和麗嘉酒店
- 畢打街介乎德輔道中與皇后大道中
- 德輔道中介乎畢打街與砵典乍街

建議的施工時間，會將噪音量較高的工作，如破碎路面和拆卸沙井安排在星期一至星期五 21:00 至 23:00 及星期六 15:00 至 23:00 進行，而把噪音量較低的工作，如挖坑及敷設渠筒安排在每夜的 23:00 至翌日 07:00 進行。

詳細之施夜工範圍請參考編號附圖 DC/2002/13/SK-002 和 DC/2002/13/SK-003 之附圖。

11. 在合約 DC/2002/13 的合約其間，有關方面將會成立一個特別的「交通管理聯絡小組」，考慮及檢討承建商建議的臨時交通管理措施。該聯絡小組最少每月開會一次，成員包括下列各政府部門及有關當局的代表：
 - a. 運輸署
 - b. 香港警務處
 - c. 路政署
 - d. 消防處
 - e. 民政事務總署
 - f. 機電工程署
 - g. 渠務署
 - h. 渠務署顧問及駐地盤人員
 - i. 承建商
 - j. 承建商的交通顧問
 - k. 九龍巴士有限公司
 - l. 新世界巴士有限公司
 - m. 城巴有限公司
 - n. 公共小型巴士
 - o. 香港電車有限公司

12. DC/2002/13 號合約的承建商，是須要聘請一間獨立、有經驗且合資格的交通顧問公司，為建造工程進行期間，設計一些臨時交通管理措施。在執行這些措施前，必須徵詢「交通聯絡小組」的意見及批准。在批核這些措施時，聯絡小組會考慮所有有關的因素，包括：地盤情況、目前及未來的交通情況、行人安全、大廈及商舖的通路及緊急車輛通道等。於工程進行時承建商須檢查及確保這些措施是根據聯絡小組所批准的計劃來實施的。渠務署的顧問人員會進一步檢查有關的執行工作。此外，運輸署、警務處及渠務署的顧問人員執行監察，有權在措施實行期間，要求承建商更改任何已經批准的措施，以配合該區實際道路交通的情況。這些程序可確保臨時交通管理措施是設計得宜，並在執行期間，將對市民所造成影響減至最低。

13. 若沒有由合約的工程師所發出的書面施工令，即使該工程包括在合約內，承建商是不可以展開任何道路工程。在發出施工令前，工程師會考慮聯絡小組是否將臨時交通管理措施連同有關道路工程一併批核，以及整體考慮承建商在附近街道將會和已進行的工程對交通的影響，確認該影響減到可接受的水平。另外，承建商必須確保有足夠資源來進行工程，以免導致工程延誤。這些程序可提供另一種管制，以免對市民造成

不必要的滋擾，或出現工程停滯的情況。

14. 除了制定了上述可減低對市民所造成交通影響的措施外，渠務署的顧問亦設立了一個處理投訴的系統，監察及回應有關此計劃的市民投訴。一份列明處理投訴程序的「行動紀錄摘要」載於附錄以供參閱。
15. 如遇到較為複雜的臨時交通改道措施時，這些措施會在「交通聯絡小組」批准後，先諮詢區議員的意見，然後才實施。

對環境的影響

16. 我們在 1996 年 5 月完成有關的環境影響評估(環評)，結果顯示工程計劃不會對環境造成長遠和超出既定標準的影響。至於施工期間的短期影響，我們會在工程合約訂定標準措施，以控制施工期間的噪音、塵埃和工地流出的污水所造成的滋擾，以符合既定的標準和準則。這些措施包括使用臨時隔音屏障和低噪音機器，以減低噪音；經常在工地灑水，以減少塵土飛揚；以及嚴格控制污水改道。我們也會實行環境監測及審核計劃，以確保工程符合環評的建議。至於確定需在中環商業區進行的晚間工程，我們會根據《噪音管制條例》的規定，申請建築噪音許可證，並限制所用機器的類型，以盡量減低噪音水平。此外，我們會規定工程承建商向工程師提交廢物管理計劃書，以供核准。計劃書須載明所採取的適當緩解措施，以盡量減少、再用和再造拆建廢料。我們會確保工地的日常運作，符合計劃書的規定。

公共設施機構的協調

17. 在施工期間，本署會循路政署的公共設施管理系統申請掘路許可證。通過這個系統，協調所有在同一條街道準備掘路的公共設施工程。
18. 除了由路政署統籌的協調系統，承建商亦須按合約規定，成立一個公共設施聯絡小組，成員包括所有將會在工地範圍內進行工程的公共設施機構。聯絡小組會商討有關協調工作，例如在同一坑道或同一工地內敷設公共設施，以減少對公眾的滋擾。
19. 若在施工期間發現有任何公共設施損壞，本署會立刻通知有關的公共設施機構，進行維修，並儘快恢復供應。同時本署亦會通知民政事務署有關行動，以便儘快讓市民知悉情況。

減少對公眾的不便

20. 按合約規定，承建商須在施工前與居民聯絡，以減少對居民的滋擾。合約並訂明承建商須保持工地環境在合理的水平。若承建商不能達到要求，工程費會被扣減。
21. 在每段渠務工程施工前，我們會通知民政事務署有關工程範圍和安排。並會分派工程的簡介給附近商戶和大廈管理處。
22. 本署的駐地盤人員會每日巡查各工地，確保工地的環境符合要求。路政署亦派隊伍巡查各工地，對不符要求的承建商發出警告。
23. 若頂管工程的豎井太接近商舖門前，本署會考慮把挖掘的工程範圍圍上圍板或圍網，以減輕塵埃和噪音的滋擾。本署亦會考慮為受圍板或圍網影響的有關商戶在適當地點掛上指示牌，以便顧客知悉該商戶的地點及前往的途徑。

議員意見

24. 歡迎各位議員給予意見。
25. 渠務署代表及其顧問會出席會議，解答各位議員的問題。

渠務署

2003年12月

Drainage Services Department

Project -“Central, Western and Wan Chai West Sewerage , Stage 2 Phase 2B Works”

PURPOSE

1. To inform the Members and to seek Members' Support on the sewerage improvement works under the above Project to be carried out in Central and Western Districts.

BACKGROUND

2. The Central, Western and Wan Chai West Sewerage Master Plan (SMP) is one of the 16 SMPs developed by Drainage Services Department (DSD) to identify the sewerage infrastructure necessary for meeting population demand and improving water quality in coastal water. The Central, Western and Wan Chai West SMP study was completed in August 1993 and a package of sewerage improvement works was identified to improve and upgrade the sewerage system in the areas so as to meet future development needs.
3. Given the existing dense development, coupled with the heavily trafficked and narrow road in these areas, phased construction is required to avoid creating sever disruption to residents and traffic. The Central, Western & Wan Chai West sewerage improvement works are thus implemented in two stages, namely stage I and stage II.
4. Stage I works comprises four Contracts for construction of a trunk sewer near the seafront from Kennedy Town to Wanchai East, sewage pumping stations at Central and Wan Chai East, and upgrading the existing sewerage systems in the upper catchments at Central, Western and Wan Chai West. All of the above Contracts are completed except the Central Sewage Pumping Station which is scheduled for commissioning in December 2004.
5. The Stage II works involves re-constructing 22.4 km of sewers with rectification of expedient connections in Central, Western and Wan Chai West. The Stage II works are divided into three Contracts for implementation. The first Contract No. DC/2001/04 and the second Contract No. DC/2001/08 commenced in October 2001 and in November 2002 respectively and will be completed in January 2005 and February 2006 correspondingly.
6. The third Contract No. DC/2002/13 is the last contract for the implementation of Central, Western and Wan Cha West Sewerage Master Plan. It includes re-constructing about 9.5 km of sewers together with rectification of expedient connections in Central and Western areas. The site construction works will commence in August 2004 for completion in May 2008. A site plan showing the indicative locations of the proposed works is at Enclosure.

7. The works for Contract No. DC/2002/13 was submitted to the LegCo Panel on Environmental Affairs on 22.12.2003 for discussion. It outlined the environmental benefits brought about by the sewerage works but also highlighted the possible traffic impacts to the areas. In general, the Members supported the implementation of the works.
8. The project will be submitted to Public Works Subcommittee of Finance Committee for endorsement on 4.2.2004 and to Finance Committee for upgrading to Category A on 20.2.2004.

TRAFFIC IMPLICATIONS

9. Sewerage construction works will inevitably bring disruption to traffic. In order to minimize disruption to traffic, the construction works will be divided into short sections. The Contractor is required to complete one section before opening up another section in the vicinity. Also, some works will be scheduled for non-peak hours. For these works, the road surface during peak hours will be temporarily covered so that normal traffic can be resumed. For certain critical road sections and junctions with heavy road traffic or where our pipes go under tramways, construction by the trenchless method instead of the open trench excavation method will be used.
10. Some sewerage works will be carried out at daytime ban roads such as Connaught Road Central and some will be carried out at very busy roads in Central. Daytime road opening works in these roads will cause sever traffic impact to the district and is considered not feasible. Therefore, sewerage construction works in these areas will be carried out at night. These areas are commercial areas and therefore night work would not cause material nuisance to the resident. Our consultants have carried out a detailed noise assessment and discussed with the Environmental Protection Department, and propose that night works be carried out at the following roads:-

- Chater Road between Club Street and Ice House Street
- Connaught Road Central near Connaught Place and near Ritz Calton Hotel
- Pedder Street between Des Voeux Road Central and Queen's Road Central
- Des Voeux Road Central between Pedder Street and Pottinger Street

Our proposed working hours will be mainly from 21:00 to 23:00 (Monday to Friday) and 15:00 to 23:00 (on Saturday) for more noisy operations like breaking pavement and demolition of manhole; and 23:00 to 07:00 (all days) for less noisy operation like excavation and laying sewers. The extent of the works is shown in the attached Drawing Nos. DC/2002/13/SK-002 and DC/2002/13/SK-003.

11. In the contract period of the Contract No. DC/2002/13, a specific Traffic Management Liaison Group (TMLG) will be established to consider and review the Contractor's proposed temporary traffic management measures. The TMLG meets monthly and comprises representatives from various Government Departments and authorities which include:
- a) Transport Department
 - b) Hong Kong Police Force
 - c) Highways Department
 - d) Fire Services Department
 - e) Home Affairs Department
 - f) Electrical and Mechanical Services Department
 - g) Drainage Services Department
 - h) DSD's Consultant and Resident Site Staff
 - i) Contractor
 - j) Traffic Consultant of the Contractor
 - k) Kowloon Motor Bus Co. Ltd.
 - l) New World Bus
 - m) City Bus Co. Ltd.
 - n) Public Light Bus
 - o) Hong Kong Tramways Ltd.
12. The Contractor is required to employ an independent, experienced and qualified traffic consultant to design the temporary traffic management measures for the execution of construction works. These measures, before implementation, must be commented on and approved by the TMLG. On approving the measures, the TMLG will take into account all relevant factors such as site conditions, existing and future traffic conditions, pedestrian safety, access to buildings/shopfronts and access for emergency vehicles. The Contractor's independent traffic consultant has to check and ensure that the measures are implemented in accordance with the schemes approved by the TMLG. This implementation will be further checked by the Consultant of the Drainage Services Department. Besides, the Transport Department, the Commissioner of Police and the Drainage Services Department's Consultant also have the power to require the Contractor to modify any approved measures during and after implementation to suit the local traffic and actual road conditions. These procedures are to ensure that the temporary traffic management measures are properly designed and implemented with minimum disruption to the public.
13. The Contractor cannot start any roadworks, though included in the Contract, without an express Works Order in writing from the Consultant of the Drainage Services Department. Before issuing such Works Order, the temporary traffic management measures associated with the concerned roadworks must have been approved by the TMLG. The Consultant of the Drainage Services Department will also take into account whether the Contractor has already completed the roadworks at other sections on the same street, or nearby streets such that the combined effect of the proposed works and any yet uncompleted works on traffic will be within an acceptable level. The Contractor must also demonstrate that he has the resources to start the works without idling. These procedures provides an additional control for avoiding unnecessary disruption to the traffic and the public.

14. Apart from the above measures established to minimize the traffic impact to the public, the Drainage Services Department's Consultant has also established a system to monitor and respond public complaints on this Project. An Action Summary Record showing the procedures in handling complaints is attached.
15. The District Council will be consulted for the more complex Temporary Traffic Arrangements after they have been endorsed by the TMLG.

ENVIRONMENTAL IMPLICATIONS

16. We have completed an Environmental Impact Assessment (EIA) study in May 1996, which concluded that there would be no long-term environmental impacts exceeding the established criteria. For short-term impacts during construction, we will control noise, dust and site run-off within established standards and guidelines through the implementation of mitigation measures, such as the use of temporary noise barriers and silenced construction plants to reduce noise generation, water-spraying to reduce emission of fugitive dust and strict control on diversion of sewage flows in the works contracts. An environmental monitoring and audit programme would be implemented to ensure compliance with EIA recommendations. For night-works identified as necessary at the Central commercial areas, we will apply for Construction Noise Permits under the Noise Control Ordinance and will restrict the plant type used to minimize the noise level. We will also require the works contractor to submit a waste management plan (WMP) to the Engineer for approval, with appropriate mitigate measures to reduce, reuse and recycle construction and demolition materials (C&DM) as much as possible. We will ensure that the day-to-day operations on site comply with the WMP.

UTILITY COORDINATION

17. During the construction stage, we have to apply Excavation Permits for road openings under the Utility Management System (UMS) organized by Highways Department (HyD). Through the UMS, the road opening at the same location among utility undertakings (UUs) can be coordinated.
18. In addition to the coordinating system organized by HyD, the Contractor is required under this Contract to establish a specific Utility Liaison Group (ULG) comprising the representatives of all UUs for regular liaison about the utility works to be carried out in the site areas. Co-ordination in works by means of common trenches, common work sites, etc. will be discussed in order to reduce the overall construction period, thereby minimizing the nuisance caused to the public.
19. If we come across utility damage whilst our works are carried out, we will notify and ask the UUs to make good the damage and resume normal supply in the first instance. We will also simultaneously notify District Office of the actions we will take and have taken for more efficient dissemination of the message to the public.

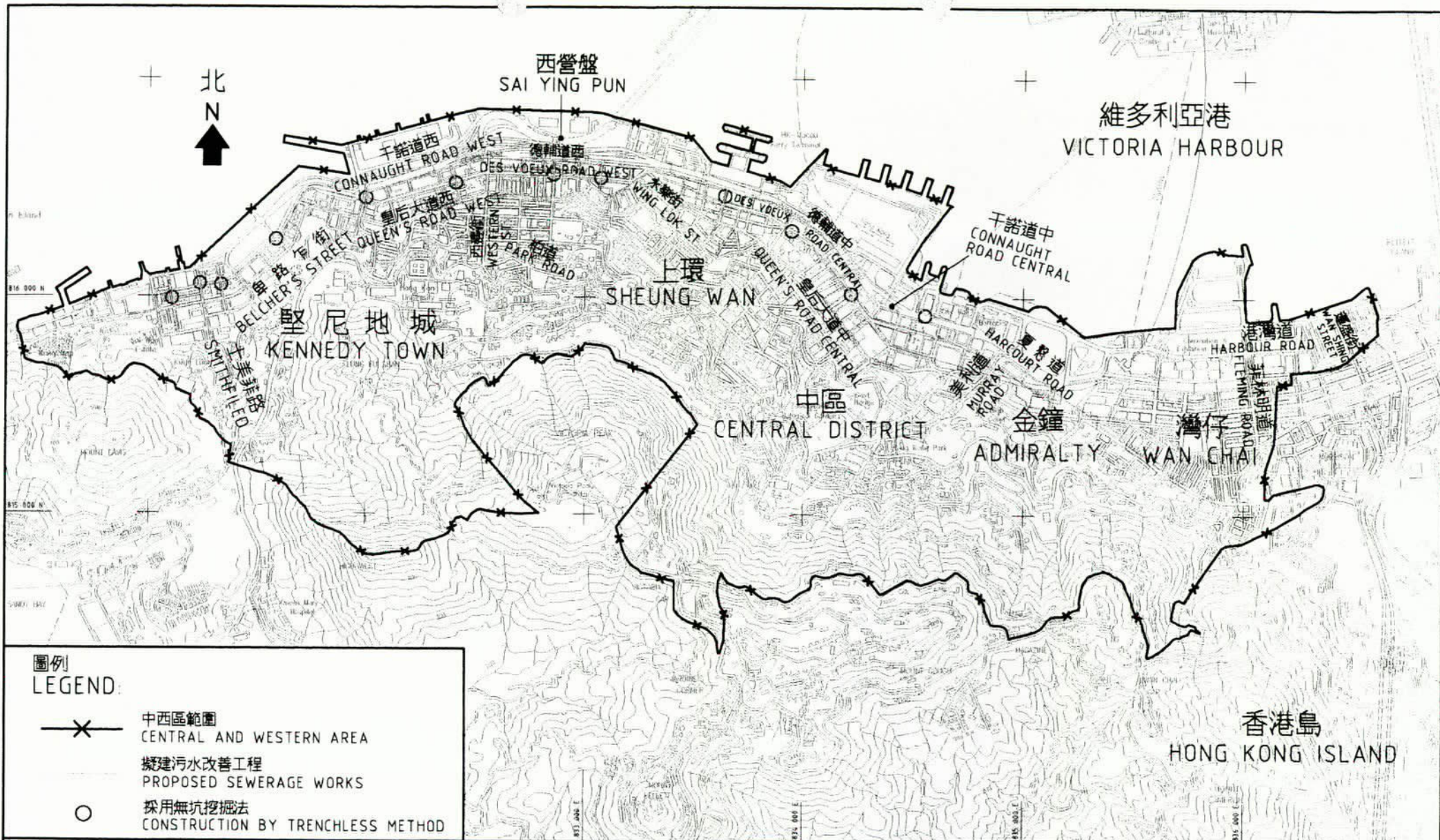
MINIMIZING INCONVENIENCE TO THE PUBLIC

- 20 Under the contract, we have contractual provisions to require the contractor to carry out liaison work with the public before carrying out the works in order to keep the nuisance caused to the public to a minimum. We have a set of specifications for them to follow and the Contractor has the obligation to keep the working environment at an acceptable manner. Under the Contract, we also have authority to deduct payment from the Contractor if we find that the Contractor has not fulfilled their obligations.
21. We will notify the District Office of the extent and arrangement of our contract works before commencement. Prior to the commencement of each section of the sewerage works, we will distribute leaflets to nearby shop operators and Building Management Committees.
- 22 Our site staff will check the works sites daily to ensure that the working environment complies with our requirements. Highways Department also has a team of site staff to patrol the works sites of the territory and will issue warnings to the contractor should there be any non-compliance found.
23. If the jacking and receiving pits of the trenchless construction are too close to existing shop frontages, we will consider providing hoardings or fences to screen the pits from the shops so as to minimize the dust and noise generated from the works. We will also consider providing banners to identify the shops which have been blocked from view due to the hoarding/fence of the works.

MEMBERS' COMMENTS

24. Members' comments are welcome.
25. Representatives from Drainage Services Department and its Consultant will attend the meeting to answer Members' questions.

Drainage Services Department
December 2003



圖例
LEGEND:

- 中西區範圍
CENTRAL AND WESTERN AREA
- 擬建污水改善工程
PROPOSED SEWERAGE WORKS
- 採用無坑挖掘法
CONSTRUCTION BY TRENCHLESS METHOD

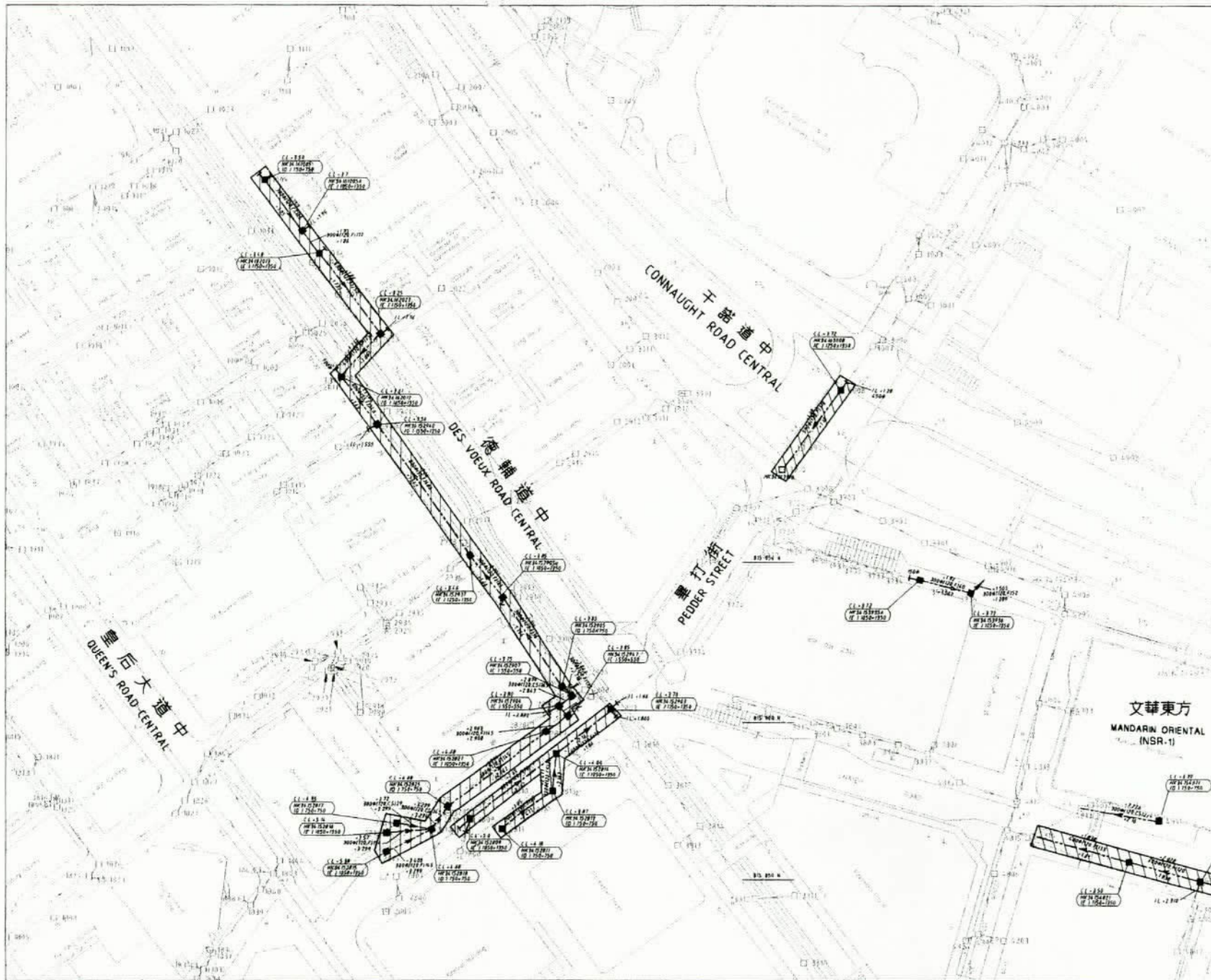
圖則名稱 TITLE
 工務工程項目 4143DS
 PWP ITEM No. 4143DS
 中西區及灣仔西污水收集系統改善工程第2階段第2B期
 CENTRAL, WESTERN & WANCHAI WEST SEWERAGE STAGE 2, PHASE 2B

繪畫 DRAWN	K S LAI	日期 DATE	04-10-2003
檢查 CHECKED	K C CHU	日期 DATE	04-10-2003
批准 APPROVED	W K LEE	日期 DATE	04-10-2003
部門 OFFICE	工程管理部 PROJECT MANAGEMENT DIVISION		

圖號 DRG NO
 91194/101
 比例 SCALE
 NTS

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 DRAINAGE SERVICES DEPARTMENT
 GOVERNMENT OF THE
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 SPECIAL ADMINISTRATIVE REGION



圖例
LEGEND:

- 夜間渠務工程
NIGHT WORKS SEWERAGE
- 噪音感應強的地方
NOISE SENSITIVE RECEIVER (INSR)

DATE	DESCRIPTION	BY	CHECKED	APPROVED	SCALE
	修訂				1:1000

DRAINAGE SERVICES DEPARTMENT

CENTRAL & WAN CHAI WEST INTERCEPTOR
AND RETICULATION SEWERS
- LOWER CATCHMENT
(PHASE 2B WORKS)

NIGHT WORKS IN CENTRAL DISTRICT
LAYOUT PLAN

MAUNSELL CONSULTANTS ASIA LTD
茂達亞洲工程顧問有限公司
IN ASSOCIATION WITH
ATKINS HONGKONG

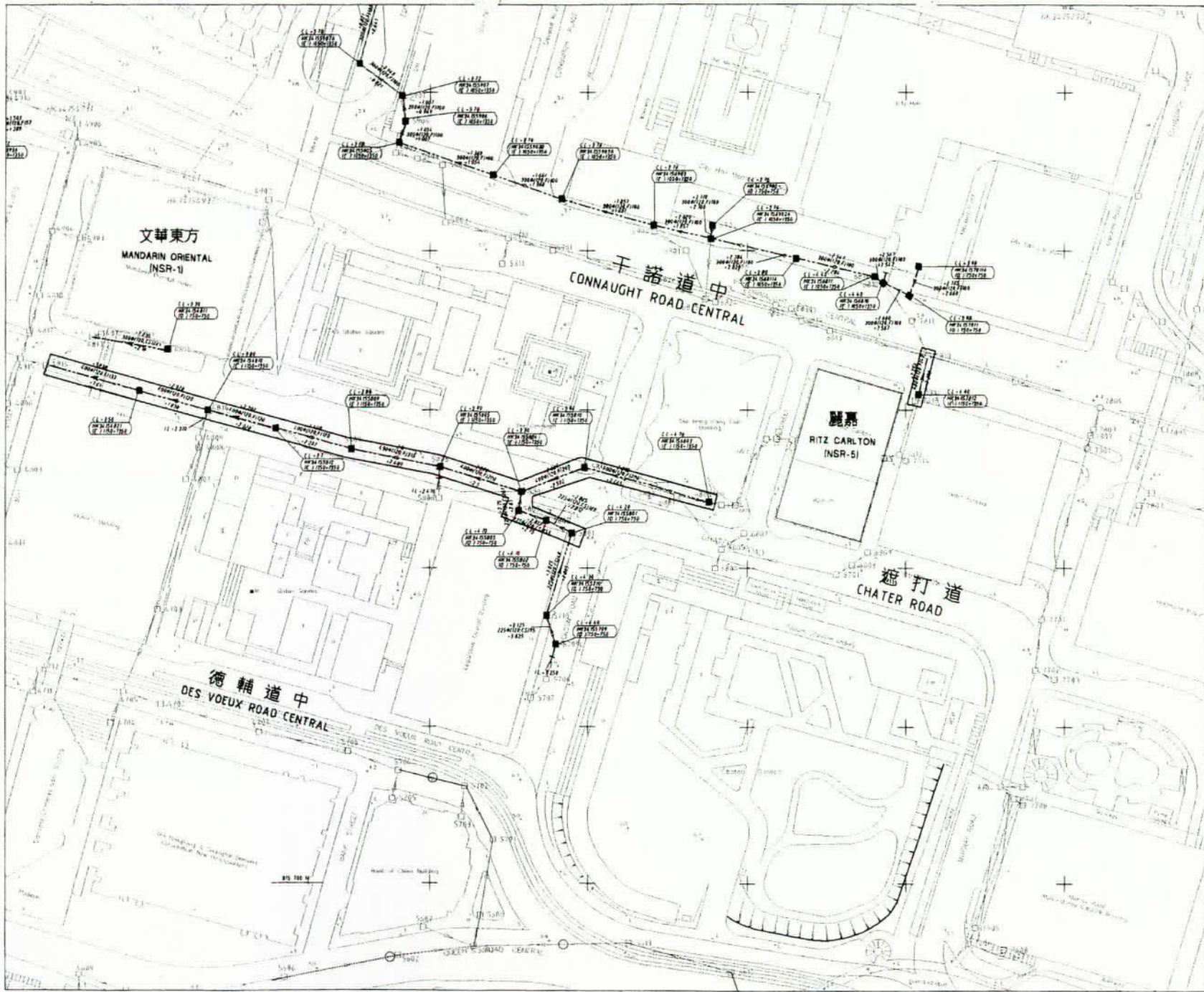
D.R.G. NO. DC/2002/13/SK-002

DESIGNED BY	REV	CONTRACT NO.	DATE OF DRAW
		DC/2002/13	DEC 2002

DRAWN BY	CHK	DATE
		DEC 2002

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圖例
LEGEND:

- 夜間渠務工程
NIGHT WORKS SEWERAGE
- 噪音感應強的地方
NOISE SENSITIVE RECEIVER (NSR)

DRAINAGE SERVICES DEPARTMENT		
CENTRAL & WAN CHAI WEST INTERCEPTOR AND RETICULATION SEWERS - LOWER CATCHMENT (PHASE 2B WORKS)		
NIGHT WORKS IN CENTRAL DISTRICT LAYOUT PLAN		
MAUNSELL CONSULTANTS ASIA LTD 及盛亞洲工程顧問有限公司 <small>In association with ATONG HARRIS & BROWN</small>		
DRG. NO. 圖號編號	DC/2002/13/SK-003	
DESIGNED BY 設計人	SCALE 比例	DATE OF WORK 日期
BY 由	DATE 日期	BY 由
BY 由	DATE 日期	BY 由
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Agreement No. CE 28/93 顧問研究合同編號 CE28/93 :
 Central, Western and Wanchai West Sewerage 中西區及灣仔西污水系統
 Public Complaint – Action Summary Record 市民投訴 – 行動紀錄摘要

Contract No. 合約編號 :		Contractor 承建商:		
Complaint No. 投訴編號:		Nature / Parameter 性質:		
First Informed By 最初投訴者姓名:		On (date) 在(日期):		
Action 行動	By 經手人	Signature 簽署	Date 日期	Remarks/Result 備註/結果
Receive Complaint Action Form from Contractor 從承建商接獲投訴行動表				Copy Attached 隨函夾附
Verify Substance of Complaint 核實投訴事項	SIOW / IOW 工程 高級工程督察/工程督察			Substantiated 成立/ Unsubstantiated 不成立
Discuss Improvement/Remedial Measures with Contractor 與承建商商討改善 / 矯正措施	(1) RE 駐地盤工程師			
	(2) RE 駐地盤工程師			
Implement Improvement/Remedial Measures 執行改善 / 矯正措施	(1) SIOW/IOW 高級工程督察/工程督察			
	(2) SIOW/IOW 高級工程督察/工程督察			
Verify Effectiveness of Improvement/Remedial Measures 核實改善 / 矯正措施的效果	(1) SIOW/IOW 高級工程督察/工程督察			
	(2) SIOW/IOW 高級工程督察/工程督察			
Notify Complainant (If necessary) 通知投訴人 (若有需要)	(1) RE 駐地盤工程師			
	(2) RE 駐地盤工程師			
Notify Engineer (If necessary) 通知工程師 (若有需要)	(1) RE 駐地盤工程師			
	(2) RE 駐地盤工程師			
Notify CE/CE, DSD (If necessary) 通知渠務署總工程師 / 工程管理部 (若有需要)	(1) RE 駐地盤工程師			
	(2) RE 駐地盤工程師			
Send Warning Letters to Contractor 向承建商發出警告信	RE 駐地盤工程師			Total No.總數:
Close File 封存檔案	SRE 駐地盤高級工程師			

The original should be controlled by SRE until closing file.

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