For discussion **PWSC(2009-10)47**
on 10 June 2009

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 703 – BUILDINGS
Environmental Hygiene – Toilets and bathhouses
12NT – Conversion of aqua privies into flushing toilets – phase 6

Members are invited to recommend to Finance Committee the upgrading of **12NT** to Category A at an estimated cost of $221.1 million in money-of-the-day prices for the conversion of 90 aqua privies into flushing toilets.

PROBLEM

Aqua privies in the New Territories and outlying islands can no longer meet the rising expectation of the public over the standard of public toilet facilities.

PROPOSAL

2. The Director of Architectural Services, with the support of the Secretary for Food and Health, proposes to upgrade **12NT** to Category A at an estimated cost of $221.1 million in money-of-the-day (MOD) prices for the conversion of 90 aqua privies into flushing toilets.

/PROJECT .....

PROJECT SCOPE AND NATURE

3. Since 2005, we have been implementing a programme to convert aqua privies in the New Territories and outlying islands into flushing toilets by phases. The conversion of 97 aqua privies[1] under phases 1, 2A and 2B (i.e. **6NT**, **7NT** and **8NT**) was completed in end 2007. Conversion of another 50 aqua privies under phase 3 (**9NT**) and phase 4 (**10NT**) was completed in May 2009. Conversion of 80 aqua privies under phase 5 (**11NT**) commenced in November 2008 and is expected to complete by mid 2010.

4. The scope of conversion works for the 90 aqua privies under phase 6 (**12NT**) will be similar to that in previous phases and can be classified into the following three types -

(a) **Type 1 – General refurbishment works for 24 aqua privies, including –**

(i) conversion of existing aqua privies into toilets with flushing system including alterations to cubicles and the provision of pedestal or squatting type water closets;

(ii) replacement of internal/external wall and floor finishes;

(iii) improvement of hand-washing facilities;

(iv) improvement of lighting and ventilation; and

(v) conversion of the existing septic tank into an underground holding tank.

(b) **Type 2 – Installation of bio-treatment system for 55 aqua privies, including –**

(i) general refurbishment works under Type 1; and

/(ii) .....

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[1] There were 100 aqua privies in the original scope of **6NT**, **7NT** and **8NT**. Among them, two aqua privies have encroached onto private lots hence conversion works could not be done. Another one is affected by a road widening project. We will arrange reprovisioning in the nearby area.

(ii) installation of a bio-treatment system to treat waste by a biological process and to recirculate the treated effluent for flushing purpose.

(c) **Type 3 – Connection with public sewerage for 11 aqua privies, including –**

(i) general refurbishment works under Type 1 items (i) to (iv) above; and

(ii) connecting underground drains of the toilets to the public sewer available in the vicinity.

The location of the 90 aqua privies on the Conversion List is set out in Enclosure 1.

5. The type of works to be implemented at each aqua privy is subject to site constraints and the availability of public sewer nearby. For Type 1 and Type 2 conversion works, we will convert existing septic tanks into holding tanks for waste. For Type 1 aqua privies without bio-treatment plant, we will arrange more frequent tankering away of waste. For Type 2 aqua privies where sufficient space is available, we will install bio-treatment plants. For Type 3 aqua privies, as nearby public sewer is available, we will connect their underground drains to the public sewer. The conversion method recommended for each aqua privy will be reviewed and, if required, adjusted in the light of the situation on the ground.

6. We have also drawn up a reserve list at Enclosure 2 as replacements in case some of the aqua privies identified for action could not proceed as planned due to land or other technical reasons. As the aqua privies on the Reserve List are similar in size and nature to those on the Conversion List, replacements, if any, will not have significant time or cost implications.

7. The layout plans of a typical aqua privy and a flushing toilet converted from an aqua privy are at Enclosures 3 and 4 respectively. Exterior and interior views of the toilet after the completion of the proposed conversion works are at Enclosure 5. We plan to carry out the proposed conversion works under **12NT** in batches starting from November 2009 for completion by mid 2011. During the closure period of the aqua privies, we will make available portable toilets on site for use by the public.

/JUSTIFICATION .....

JUSTIFICATION

8. Aqua privy is a village-type dry latrine without any flushing system. Toilet waste passes down the squatting hole of each toilet compartment is collected in the septic tank underneath the aqua privies. The absence of a flushing system may create hygiene, pest and odour problems. Hence, aqua privies are not desirable public toilet facilities.

9. To meet rising public expectation, the upgrading of existing aqua privies to flushing toilets with proper hand-washing facilities, improved lighting, ventilation and odour control, more up-to-date external outlook and internal fitting-out will improve the hygiene conditions and upgrade the standard of provision of public toilet facilities in the New Territories and outlying islands.

10. It is an initiative in the Policy Agenda to convert all aqua privies in the territory into flushing toilets by 2012-2013. When the first 5 phases, i.e. **6NT** to **11NT** are completed by mid 2010, a total of 227 aqua privies would have been converted into flushing toilets. In response to Members' request to expedite the conversion programme for the some 290 aqua privies remaining, and to support the Chief Executive's initiative to create jobs, we have reviewed our plan and propose to re-schedule the conversion works in two phases, instead of three phases as originally planned. Through deployment of extra resources, we propose to include 90 aqua privies under **12NT** and about 200 aqua privies in Phase 7 which is the final phase of the program, we also plan to advance the commencement of the last phase by six months from end 2010 to mid 2010. We will seek funding approval from the Legislative Council when details of the last phase are ready. We aim to complete the entire conversion programme in 2012-13.

FINANCIAL IMPLICATIONS

11. We estimate the capital cost of **12NT** to be $221.1 million in MOD prices (see paragraph 12 below), made up as follows –

/(a) .....

			$ million	
(a)	Site preparation		24.2	
(b)	Building		39.2	
(c)	Building services		23.5	
(d)	Drainage		82.4	
(e)	External works		7.2	
(f)	Additional energy conservation measures		0.2	
(g)	Consultants' fees		4.3	
	(i) contract administration	4.1		
	(ii) management of resident site staff	0.2		
(h)	Remuneration of resident site staff		0.4	
(i)	Provision of temporary portable toilets		5.0	
(j)	Contingencies		18.6	
	Sub-total		205.0	(in September 2008 prices)
(k)	Provision for price adjustment		16.1	
	Total		221.1	(in MOD prices)

We propose to engage consultants to undertake contract administration and site supervision of the project. A detailed breakdown of the estimate for consultants' fee and resident site staff costs by man-months is at Enclosure 6. The construction floor area (CFA) of the **12NT** is about 5 473 square metres (m^2). The estimated construction unit cost, represented by the building and the building

/services .....

services costs, are $11,456 per m^2 of CFA in September 2008 prices. We consider this unit cost reasonable as compared with similar projects implemented by the Government.

12. Subject to approval, we will phase the expenditure as follows –

Year	$ million (Sept 2008)	Price adjustment factor	$ million (MOD)
2009 – 10	3.0	1.03500	3.1
2010 – 11	70.0	1.05570	73.9
2011 – 12	65.0	1.07681	70.0
2012 – 13	40.0	1.09835	43.9
2013 – 14	27.0	1.12032	30.2
	205.0		221.1

13. We have derived the MOD estimates on the basis of the Government's latest forecast of trend rate of change in the prices of public sector building and construction output for the period 2009 to 2014. We intend to deliver the proposed works under a new design and construction term contract which is expected to be awarded in October 2009. The contract is specially created to meet the needs of the phased conversion programme of aqua privies into flushing toilets. This is a 36-month re-measurement contract with provision for price adjustments.

14. Upon completion of the project, the annual recurrent expenditure for the 90 aqua privies under phase 6 will be about $11.8 million.

PUBLIC CONSULTATION

15. We received no objection from the local community when we consulted them on the proposed aqua privies conversion works. We also consulted the relevant District Councils in February and March 2009 and had their support. A list of the District Councils consulted and the respective meeting date is at Enclosure 7.

16. On 12 May 2009, we consulted the Legislative Council Panel on Food Safety and Environmental Hygiene on the proposed conversion of 90 aqua privies into flushing toilets under **12NT**. The Panel supported the proposal.

ENVIRONMENTAL IMPLICATIONS

17. The project is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499) and will not cause long-term environmental impact. We have included in the project estimates the cost to implement suitable mitigation measures to control short term environmental impacts.

18. During construction, we will control noise, dust and site run-off nuisances to within established standards and guidelines through the implementation of mitigation measures in the relevant contract. These include the use of silencers, mufflers, acoustic lining or shields for noisy construction activities, and frequent cleaning and watering of the site.

19. We have considered measures in the planning and design stages to reduce the generation of construction waste where possible. These measures include the use of metal hoardings and signboards and prefabricated building elements such as steel frame construction and proprietary toilet partitions, together with retaining the existing construction and structures of aqua privies as far as possible. In addition, we will require the contractor to reuse inert construction waste (e.g. the use of excavated materials for filling within the site) on site or in other suitable construction sites as far as possible, in order to minimise the

/disposal .....

disposal of inert construction waste to public fill reception facilities[2]. We will encourage the contractor to maximise the use of recycled or recyclable inert construction waste, as well as the use of non-timber formwork to further minimise the generation of construction waste.

20. We will also require the contractor to submit for approval a plan setting out the waste management measures, which will include appropriate mitigation means to avoid, reduce, reuse and recycle inert construction waste. We will ensure that the day-to-day operations on site comply with the approved plan. We will require the contractor to separate the inert portion from non-inert construction waste on site for disposal at appropriate facilities. We will control the disposal of inert construction waste and non-inert construction waste to public fill reception facilities and landfills respectively through a trip-ticket system.

21. We estimate that the project will generate in total about 850 tonnes of construction waste. Of these, we will reuse about 275 tonnes (32.4 %) of inert construction waste on site and deliver 500 tonnes (58.8%) of inert construction waste to public fill reception facilities for subsequent reuse. In addition, we will dispose of 75 tonnes (8.8%) of non-inert construction waste at landfills. The total cost for accommodating construction waste at public fill reception facilities and landfill sites is estimated to be $22,875 for this project (based on a unit cost of $27/tonne for disposal at public fill reception facilities and $125/tonne[3] at landfills).

ENERGY CONSERVATION MEASURES

22. This project has adopted various forms of energy efficient features, including -

(a) T5 energy efficient fluorescent tubes with electronic ballasts and lighting control by occupancy sensors ; and

/(b) .....

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[2] Public fill reception facilities are specified in Schedule 4 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation. Disposal of inert construction waste in public fill reception facilities requires a licence issued by the Director of Civil Engineering and Development.

[3] This estimate has taken into account the cost of 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^3), nor the cost to provide new landfills (which is likely to be more expensive) when the existing ones are filled.

(b) Light-emitting diode (LED) type exit signs.

23. The total estimated additional cost for the adoption of the above energy efficient features is about $200,000, which has been included in the cost estimate of the project. The energy efficient features will achieve 10.1 % energy savings in the annual energy consumption with a payback period at about 1.1 year.

HERITAGE IMPLICATIONS

24. The project will not affect any heritage site, i.e. all declared monuments, proposed monuments, graded historic sites/buildings, site of archaeological interest and Government historic sites identified by the Antiquities and Monuments Office.

LAND ACQUISITION

25. The project does not require any land acquisition.

BACKGROUND INFORMATION

26. We upgraded **12NT** to Category B in December 2008. We engaged a quantity surveying consultant to prepare tender documents in April 2009 . We charged the cost of $900,000 to block allocation **Subhead 3100GX** "Project feasibility studies, minor investigations and consultants' fees for items in Category D of the Public Works Programme". We have completed site investigation and sketch plans using in-house staff resources. The quantity surveying consultant is finalising the tender documents.

27. The proposed aqua privies conversion works will not involve any tree removal or planting proposals.

/28. .....

28. We estimate that the proposed works will create about 338 jobs (315 for labourers and another 23 for professional/technical staff) providing a total employment of 4 900 man-months.

Food and Health Bureau
May 2009

12NT – Conversion of aqua privies into flushing toilets – phase 6
Locations of 90 aqua privies on the Conversion List
12NT－把旱廁改為沖水式廁所－第 6 期
列於改建名單的 90 個旱廁所在地點

A. Locations of 24 aqua privies to be converted under Type 1 works
擬進行第一類改建工程的 24 個旱廁的地點

North District 北區

1. Kwan Tei Tsuen, Fanling 粉嶺軍地村
2. Kwu Tung (near Kwu Tung Village Committee Office), Sheung Shui 上水古洞(近古洞村公所)
3. San Uk Ling, Ta Kwu Ling 打鼓嶺新屋嶺

Tai Po District 大埔區

1. Ping Long Village 坪朗村
2. San Uk Tsai Village 新屋仔村
3. Tai Om Village 大庵村
4. Tai Po Kau Lo Wai (2) 大埔滘老圍(2)
5. Tai Po Kau Sun Wai (2) 大埔滘新圍(2)
6. Tai Po Mei Village (1) 大埔尾村(1)
7. Tai Po Tau Village (2) 大埔頭村(2)

Tuen Mun District 屯門區

1. Nai Wai (near playground) 泥圍(近遊樂場)
2. Ching Uk Tsuen, So Kwun Wat 掃管笏程屋村
3. To Yuen Wai 桃園圍

Yuen Long District 元朗區

1. Hong Mei Tsuen, Ha Tsuen 廈村巷尾村
2. Sha Po Tsuen, Kam Tin 錦田沙埔村
3. Chung Pak Nai, Lau Fau Shan 流浮山中白泥
4. Ha Che East, Pat Heung 八鄉下輋東
5. Fuk Hing Tsuen, Ping Shan 屏山福慶村
6. Mong Tseng Tsuen (2), Ping Shan 屏山輞井村(2)
7. Shing Uk Tsuen, Ping Shan 屏山盛屋村
8. Chuk Yuen Tsuen, San Tin 新田竹園村
9. Shui Chiu Lo Wai (2), Shap Pat Heung 十八鄉水蕉老圍(2)
10. Tai Tong Tsuen, Shap Pat Heung 十八鄉大棠村
11. Yeung Uk Tsuen, Shap Pat Heung 十八鄉楊屋村

B. Locations of 55 aqua privies to be converted under Type 2 works
擬進行第二類改建工程的 55 個旱廁的地點

Islands District 離島區

1. Ko Long Village, Lamma 南丫島高塱村
2. Choi Yuen Tsuen, Lantau 大嶼山菜園村
3. Ham Tin Kau Tsuen, Lantau 大嶼山咸田舊村
4. Lower Cheung Sha, Lantau 大嶼山下長沙
5. Tai Long Wan Village, Lantau 大嶼山大浪灣村
6. Tong Fuk Camp Site, Lantau 大嶼山塘福營地
7. Ngau Au, Tung Chung 東涌牛凹
8. Sham Shek Tsuen, Tung Chung 東涌深石村

Kwai Tsing District 葵青區

1. Liu To Village, Tsing Yi 青衣寮肚村

Enclosure 1 to PWSC(2009-10)47

PWSC(2009-10)47 附件 1

North District 北區

1. Hok Tau Tsuen, Fanling 粉嶺鶴藪村
2. Kuk Po (Lo Wai), Sha Tau Kok 沙頭角谷埔(老圍)
3. Shan Tsui, Sha Tau Kok 沙頭角山咀
4. Kwu Tung (Tin Sum), Sheung Shui 上水古洞(田心)
5. Kwu Tung (Shek Tsai Leng), Sheung Shui 上水古洞(石仔嶺)
6. Ma Cho Lung Shun Yee Tsuen (2), Sheung Shui 上水馬草壟信義村(2)
7. On Po Tsuen, Sheung Shui 上水安圃村
8. Chow Tin (1), Ta Kwu Ling 打鼓嶺週田(1)
9. Chow Tin (2), Ta Kwu Ling 打鼓嶺週田(2)
10. Muk Wu Tsuen, Ta Kwu Ling 打鼓嶺木湖村
11. Ta Kwu Ling San Tsuen 打鼓嶺新村

Sai Kung District 西貢區

1. Hung Fa Village (1) 紅花村(1)
2. Pak Sha Wan Village (Church) 白沙灣村(教堂)
3. Pik Shui Sun Tsuen (1) 碧水新村(1)
4. Pik Shui Sun Tsuen (2) 碧水新村(2)
5. Pik Shui Sun Tsuen (3) 碧水新村(3)
6. Sheung Sze Wan 相思灣
7. Shui Bin Tsuen 水邊村
8. Tai Wan Tau 大環頭

Sha Tin District 沙田區

1. Kwun Yam Shan Village 觀音山村

Tai Po District 大埔區

1. Sheung Pak Ngau Shek Tsuen 上白牛石村
2. Tong Min Tsuen 塘面村

Tsuen Wan District 荃灣區

1. Hon Man Lower Village 漢民下村
2. Kwong Pan Tin Village 光板田村
3. Sheung Kwai Chung Tsuen 上葵涌村

Tuen Mun District 屯門區

1. Pak Long, Lung Kwu Tan 龍鼓灘北朗
2. Nai Wai (at side of RCP) 泥圍 (垃圾站旁)
3. Tin Sum San Tsuen 田心新村

Yuen Long District 元朗區

1. Fung Kong Tsuen (Entrance), Ha Tsuen 廈村鳳降村口
2. Hang Hau Tsuen, Ha Tsuen 廈村坑口村
3. San Lei Uk Tsuen, Ha Tsuen 廈村新李屋村
4. Kam Hing Wai, Kam Tin 錦田錦慶圍
5. Chung Sum Tsuen (Shek Tau Wai), Pat Heung 八鄉中心村 (石頭圍)
6. Ng Ka Tsuen, Pat Hueng 八鄉吳家村
7. San Lung Wai, Pat Heung 八鄉新隆圍
8. Shui Chan Tin Tsuen, Pat Heung 八鄉水盞田村
9. Shui Kan Shek, Pat Heung 八鄉水澗石
10. Ng Uk Tsuen, Ping Shan 屏山吳屋村
11. Sha Kiu, Ha Wan, Ping Shan 屏山下灣沙橋
12. Shan Ha Tsuen, Ping Shan 屏山山下村
13. Ha Wan Tsuen, San Tin 新田下灣村
14. Mei Po Lung Tsuen, San Tin 新田米埔隴村
15. Tai Sang Wai (2), San Tin 新田大生圍 (2)
16. Yan Sau Wai, San Tin 新田仁壽圍
17. Muk Kiu Tau Tsuen, Shap Pat Heung 十八鄉木橋頭村
18. Nam Hang Tsuen, Shap Pat Heung 十八鄉南坑村

C. Locations of 11 aqua privies to be converted under Type 3 works
擬進行第三類改建工程的 11 個旱廁的地點

North District 北區

1. Hung Leng, Fanling 粉嶺孔嶺
2. Ma Mei Ha Tsuen, Fanling 粉嶺馬尾下村
3. Tai Tong Wu, Sha Tau Kok 沙頭角大塘湖
4. Tsung Pak Long (North), Sheung Shui 上水松柏朗(北)
5. Ping Che Tsuen (2), Ta Kwu Ling 打鼓嶺坪輋村(2)
6. Tsung Yuen Ha Tsuen, Ta Kwu Ling 打鼓嶺松園下村

Sai Kung District 西貢區

1. Ah Kung Wan 亞公灣
2. Mang Kung Uk Lower Village 孟公屋下村
3. Po Lo Che Road 菠蘿輋路

Tai Po District 大埔區

1. Shuen Wan Li Uk 船灣李屋

Tsuen Wan District 荃灣區

1. Shu On Terrace Village 舒安台村

12NT – Conversion of aqua privies into flushing toilets – phase 6
Locations of 27 aqua privies on the Conversion List
12NT－把旱廁改為沖水式廁所－第 6 期
列於後備名單的 27 個旱廁所在地點

A. Locations of 15 aqua privies to be converted under Type 1 works
擬進行第一類改建工程的 15 個旱廁的地點

North District 北區

1. Ap Chau (2), Sha Tau Kok 沙頭角鴨洲(2)

Tai Po District 大埔區

1. Ma Po Mei Village 麻布尾村
2. Shui Wo Village 水窩村
3. Tai Mong Che Village 大芒輋村

Tuen Mun District 屯門區

1. Chung Wong Toi 頌皇台
2. Shan Shek Wan Resite Area, Phase 1 散石灣遷置區第 1 期
3. Chan Uk Tsuen, So Kwun Wat 掃管笏陳屋村
4. Tai Lam Chung Tsuen 大欖涌村

Yuen Long District 元朗區

1. Pak Nai (Deep Bay Road), Lau Fau Shan 流浮山白泥(深灣路)
2. Sheung Che Tsuen, Pat Heung 八鄉上輋村
3. Wing Ning Tsuen, Ping Shan 屏山永寧村
4. Kei Lung Shan, San Tin 新田麒麟山
5. Ngau Tam Mei East, San Tin 新田牛潭尾東
6. Tai Sang Wai (1), San Tin 新田大生圍(1)
7. Tai Kei Ling, Shap Pat Heung 十八鄉大旗嶺

B. Locations of 10 aqua privies to be converted under Type 2 works
擬進行第二類改建工程的 10 個旱廁的地點

North District 北區

1. Ki Lun Tsuen, Sheung Shui 上水麒麟村

Sai Kung District 西貢區

1. Ma Yau Tong 馬游塘
2. Tsak Yue Wu 鯽魚湖
3. Wong Yi Chau 黃宜州

Tai Po District 大埔區

1. Lung Ah Pai Village 龍丫排村

Yuen Long District 元朗區

1. Tin Sum Tsuen, Ha Tsuen 廈村田心村
2. Shek Po Tsuen (Car Park), Hung Shui Kiu 洪水橋石坡村(停車場)
3. Ha Che West, Pat Heung 八鄉下輋西
4. Ku Miu, Cheung Uk Tsuen, Pat Heung 八鄉張屋村古廟
5. Ma Tin Pok, Shap Pat Heung 十八鄉馬田墈

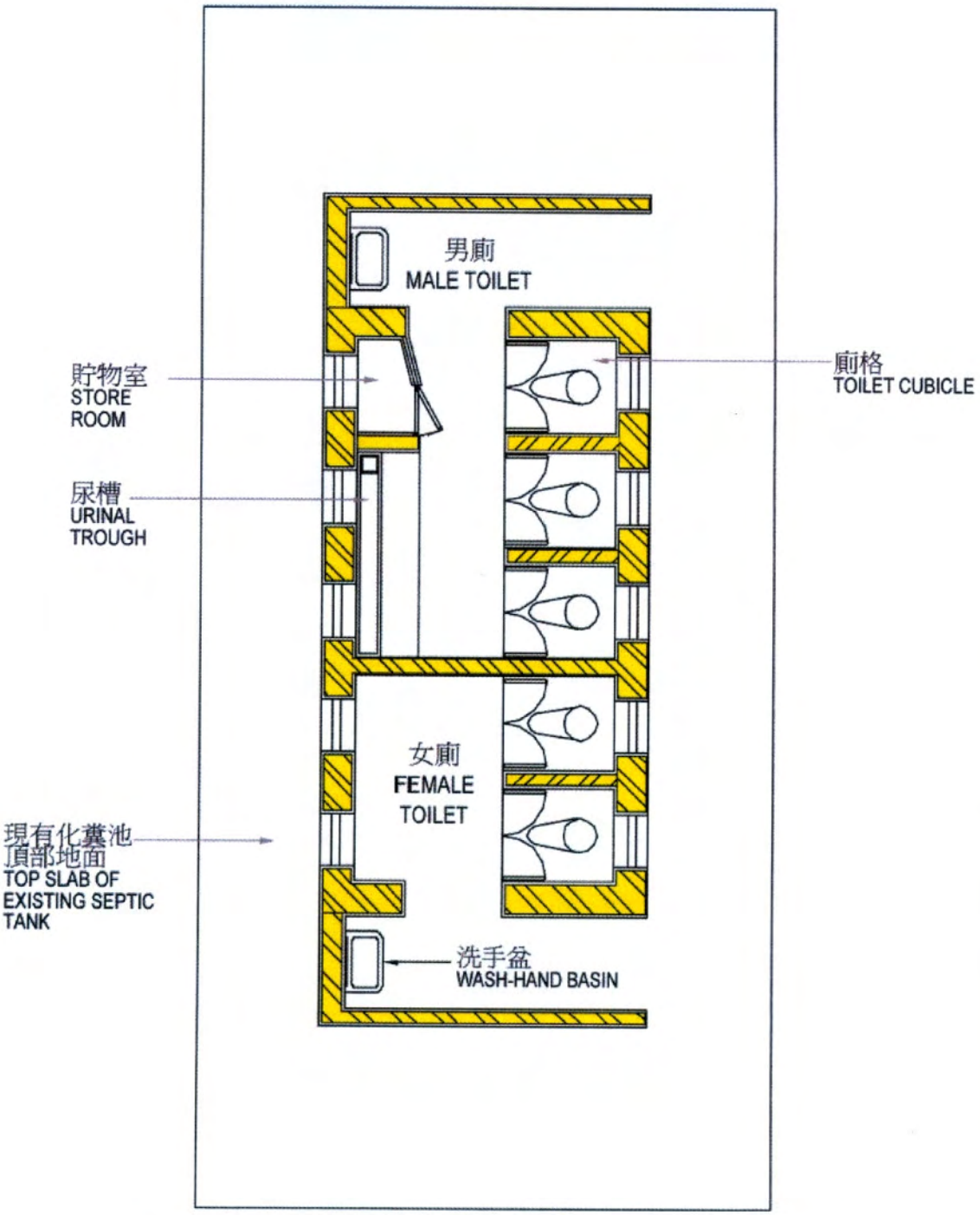
C. Locations of 2 aqua privies to be converted under Type 3 works
擬進行第三類改建工程的 2 個旱廁的地點

Sai Kung District 西貢區

1. Man Sau Sun Tsuen 萬壽新村

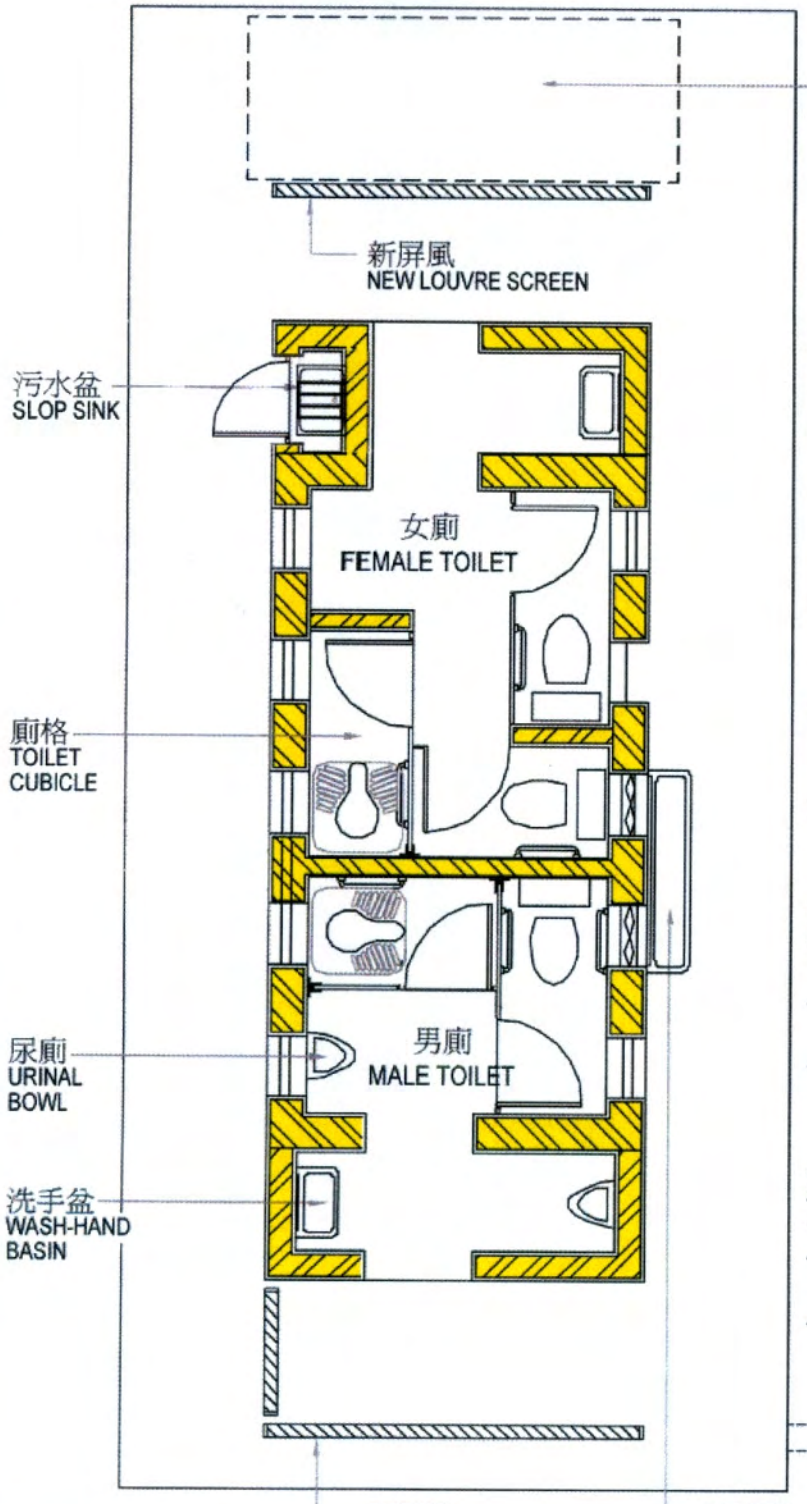
Tsuen Wan District 荃灣區

1. Tsing Fai Tong 清快塘



現有旱廁佈置圖
EXISTING AQUA PRIVY LAYOUT

title 12NT 把旱廁改爲沖水式廁所 - 第6期 CONVERSION OF AQUA PRIVIES INTO FLUSHING TOILETS - PHASE 6	drawn by J.S.LUI	date 12.05.09	drawing no. AB/7773/P6/XA102	scale 1:50
	approved H.F.CHIN	date 12.05.09	ARCHITECTURAL SERVICES DEPARTMENT	
	office Project Management Branch			



第一類改善工程
TYPE 1 WORKS

(I) 安裝新廁具
INSTALLATION OF NEW FITMENT

(II) 翻新內/外牆及地面
RE-FINISHING TO INTERNAL / EXTERNAL WALLS / FLOOR

(III)改善洗手設備
IMPROVEMENT OF HAND-WASHING FACILITIES

(IV)改善通風/照明
IMPROVEMENT OF VENTILATION / LIGHTING

(V) 化糞池改爲貯糞池
CONVERSION OF SEPTIC TANK INTO HOLDING TANK

第二類改善工程
TYPE 2 WORKS

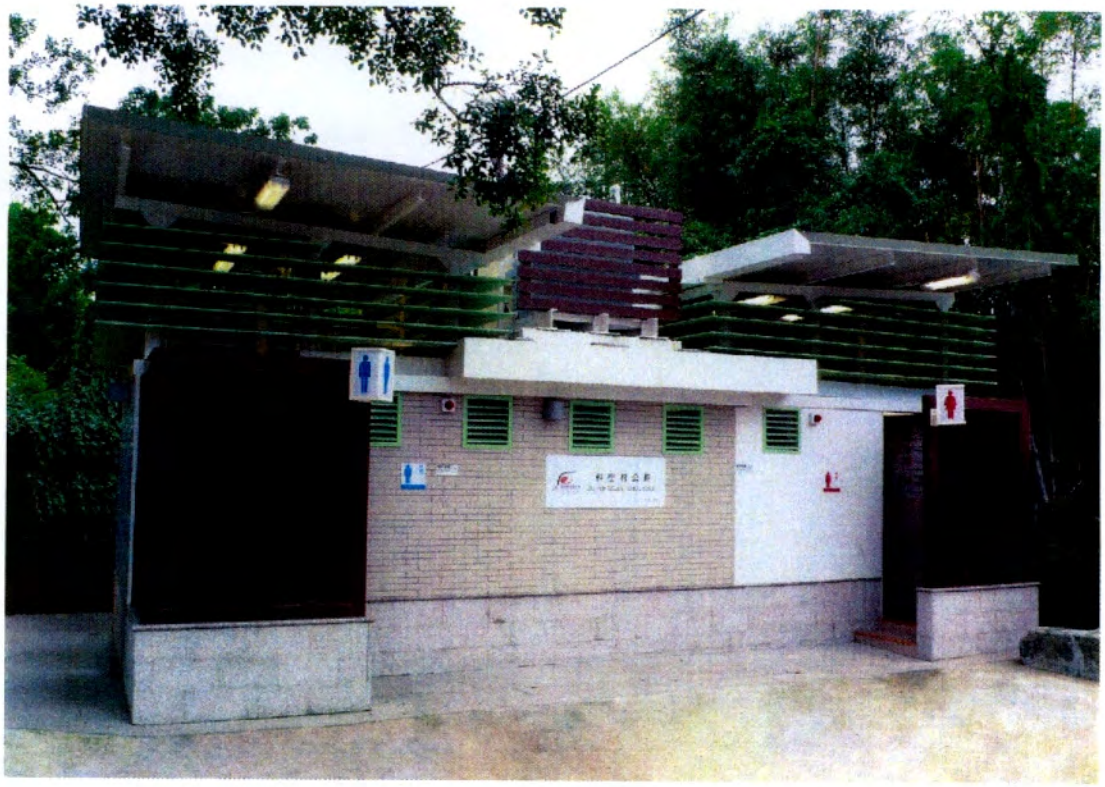
- 第一類改善工程
TYPE 1 WORKS
- 安裝生物處理污物系統
INSTALLATION OF BIO-TREATMENT SYSTEM

第三類改善工程
TYPE 3 WORKS

- 第一類改善工程(I)至(IV)項目
TYPE 1 WORKS ITEM (I) TO (IV)
- 接駁公共排污渠
CONNECTION OF PUBLIC SEWER

建議新公廁設計
TYPICAL SCHEMATIC LAYOUT PROPOSAL

title 12NT 把旱廁改爲沖水式廁所 - 第6期 CONVERSION OF AQUA PRIVIES INTO FLUSHING TOILETS - PHASE 6	drawn by J.S.LUI	date 12.05.09	drawing no. AB/7773/P6/XA103	scale 1:50
	checked by H.F.CHIN	date 12.05.09		
	office Project Managment Branch		ARCHITECTURAL SERVICES DEPARTMENT	



廁所改善後之外貌
EXTERIOR VIEW OF TOILET AFTER IMPROVEMENT

廁所改善後之內貌
INTERIOR VIEW OF TOILET AFTER IMPROVEMENT

title 12NT 把旱廁改爲沖水式廁所 - 第6期 CONVERSION OF AQUA PRIVIES INTO FLUSHING TOILETS - PHASE 6	drawn by J.S.LUI	date 12.05.09	drawing no. AB/7773/P6/XA104	scale NTS
	checked by H.F.CHIN	date 12.05.09	ARCHITECTURAL SERVICES DEPARTMENT	
	office Project Managment Branch			

Enclosure 6 to PWSC(2009-10)47

12NT – Conversion of aqua privies into flushing toilets – phase 6

Breakdown of the estimate for consultants' fees and resident site staff costs (in September 2008 prices)

		Estimated man-months	Average MPS* salary point	Multiplier (Note 1)	Estimated fee ($ million)
(a) Consultants' fee for contract administration (Note 2)	Professional	-	-	-	1.9
	Technical				2.2
				Sub-total	4.1
(b) Resident site staff cost (Note 3)	Technical	18.9	14	1.6	0.6
				Sub-total	0.6
Comprising –					
(i) Consultants' fees for management of resident site staff					0.2
(ii) Remuneration of resident site staff					0.4
				Total	4.7

* MPS = Master Pay Scale

Notes

1. A multiplier of 1.6 is applied to the average MPS point to estimate the cost of resident site staff supplied by the consultants. (As at 1 April 2008, MPS point 14 = $19,835 per month.)

2. The consultants' staff cost for contract administration is calculated in accordance with the existing consultancy agreement for the design and construction of **12NT**. The assignment will only be executed subject to Finance Committee's approval to upgrade **12NT** to Category A.

3. The consultants' staff cost for site supervision is based on the estimate prepared by the Director of Architectural Services. We will only know the actual man-months and actual costs after completion of the construction works.

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Enclosure 7 to PWSC(2009-10)47

PWSC(2009-10)47 附件 7

12NT – Conversion of aqua privies into flushing toilets – phase 6
12NT – 把旱廁改爲沖水式廁所 – 第 6 期

List of District Councils/ Subcommittees Consulted
所諮詢的相關的區議會或其轄下相關的委員會

District **區**	**District Councils/Subcommittees consulted** **所諮詢的相關的區議會或其轄下相關的委員會**	**Date of Consultation** **諮詢日期**
Islands 離島區	Tourism, Agriculture, Fisheries & Environmental Hygiene Committee 旅遊漁農及環境衞生委員會	16.3.2009
Kwai Tsing 葵青區	Community Affairs Committee 社區事務委員會	10.2.2009
North 北區	District Minor Works & Environmental Improvement Committee 地區小型工程及環境改善委員會	16.3.2009
Sai Kung 西貢區	Housing & Environmental Hygiene Committee 房屋及環境衞生委員會	31.3.2009
Sha Tin 沙田區	Health and Environment Committee 衞生及環境委員會	5.3.2009
Tai Po 大埔區	Environment, Housing & Works Committee 環境、房屋及工程委員會	11.3.2009
Tsuen Wan 荃灣區	Environmental and Health Affairs Committee 環境及衞生事務委員會	5.3.2009
Tuen Mun 屯門區	Environment, Hygiene & District Development Committee 環境、衞生及地區發展委員會	20.3.2009
Yuen Long 元朗區	Environmental Improvement Committee 環境改善委員會	9.3.2009