立法會
Legislative Council

LC Paper No. CB(1)886/04-05
(These minutes have been seen by the Administration)

Ref : CB1/PL/PLW/1

Panel on Planning, Lands and Works

Minutes of meeting
held on Tuesday, 25 January 2005, at 2:30 pm
in Conference Room A of the Legislative Council Building

Members present : Hon LAU Wong-fat, GBS, JP (Chairman)
Hon Patrick LAU Sau-shing, SBS, JP (Deputy Chairman)
Ir Dr Hon Raymond HO Chung-tai, S.B.St.J., JP
Hon James TO Kun-sun
Hon WONG Yung-kan, JP
Hon CHOY So-yuk
Hon Timothy FOK Tsun-ting, GBS, JP
Hon Abraham SHEK Lai-him, JP
Hon Albert CHAN Wai-yip
Hon LEE Wing-tat
Hon LI Kwok-ying, MH
Hon Daniel LAM Wai-keung, BBS, JP
Hon Alan LEONG Kah-kit, SC
Hon CHEUNG Hok-ming, SBS, JP

Public officers attending : **Agenda item IV**

Mr James S O CHAN
Principal Assistant Secretary for Environment, Transport and Works (Works) 3

Mr M C LEUNG
Assistant Director/New Works
Water Supplies Department

Mr C H NG
Chief Engineer/Project Management
Water Supplies Department

Clerk in attendance : Miss Odelia LEUNG
Chief Council Secretary (1)4

Staff in attendance : Ms Sarah YUEN
Senior Council Secretary (1)6

Ms Christina SHIU
Legislative Assistant

Action

I Confirmation of minutes

(LC Paper No. CB(1)717/04-05 -- Minutes of meeting on 21 December 2004

LC Paper No. CB(1)731/04-05 -- Minutes of joint meeting with the Panel on Environmental Affairs on 16 November 2004)

The minutes of the meetings held on 16 November and 21 December 2004 respectively were confirmed.

II Information papers issued since last meeting

(LC Paper No. CB(1)557/04-05(01) -- Submission from The Real Estate Developers Association of Hong Kong on the Town Planning (Amendment) Ordinance

LC Paper Nos. CB(1)645/04-05(01) and (02) -- Correspondence between the Resident Group Concerning about the Redevelopment of Old Districts (Kwun Tong) and the Permanent Secretary for Housing, Planning and Lands concerning redevelopment of the town centre of Kwun Tong

LC Paper No. CB(1)660/04-05(01) -- Information paper on 126WC – Water supply to housing developments at Anderson Road, near Choi Wan Road and Jordan Valley

LC Paper No. CB(1)671/04-05(01) -- Letter dated 7 January 2005 from a member of the public to the Lantau Development Task Force copied to the Panel expressing views on the

Concept Plan for Lantau

LC Paper No. CB(1)763/04-05(01) -- Information paper on comprehensive planning and engineering review of Wan Chai Development Phase II)

2. Members noted the above information papers issued since the last monthly regular meeting of the Panel on 21 December 2004.

III Items for discussion at the next meeting

(LC Paper No. CB(1)748/04-05(01) -- List of outstanding items for discussion

LC Paper No. CB(1)748/04-05(02) -- List of follow-up actions)

3. Members agreed to discuss the following items at the next meeting scheduled for 22 February 2005 -

(a) Public Works Programme Information System; and

(b) Comprehensive Planning and Engineering Review of Wan Chai Development Phase II.

IV PWP Item No. 182WC "Replacement and Rehabilitation of Water Mains, Stage 2"

(LC Paper No. CB(1)748/04-05(03) -- Information paper provided by the Administration

LC Paper No. CB(1)748/04-05(04) -- Background brief on "Replacement and rehabilitation of water mains" prepared by the Legislative Council Secretariat)

4. The Principal Assistant Secretary for Environment, Transport and Works (Works)3 (PAS/ETW(W)3) briefed members on the background on stage 2 of the replacement and rehabilitation programme of aged water mains (the Programme) undertaken by the Water Supplies Department (WSD) as a continuation of efforts to solve the problem due to bursts and leaks of these water mains. He also explained the Administration's intention to part-upgrade 182WC to Category A for engaging consultants to carry out investigation and detailed design for the works under 182 WC (the proposed consultancy). With the aid of power point, the Assistant Director/New Works, Water Supplies Department (ADWS/NW) briefed members on the details of the Programme, the relevant financial proposal and the techniques adopted for replacement and rehabilitation of water mains.

(*Post-meeting note*: The hard copy of the power-point presentation was circulated to members vide LC Paper No. CB(1)789/04-05(01) on 26 January 2005.)

Progress of the Programme

5. Members noted from the Administration's briefing that the Programme would be compressed from 20 to 15 years. However, many members still considered the progress too slow and urged the Administration to further accelerate the Programme as far as possible. In particular, Mr Albert CHAN Wai-yip opined that the Programme should be compressed to ten years for the following reasons -

(a) Pipe failures would cause great disruption to people's daily life and traffic, and would lead to suspension and even contamination of water supply;

(b) Given that the Airport Core Programme projects only took nine years to complete, there was no reason why the Programme should take 15 years; and

(c) The Programme should be carried out as quickly as possible to reduce the high unemployment rate in the construction industry and to capitalize on the present relatively low tender prices.

6. In response, PAS/ETW(W)3 and ADWS/NW made the following points –

(a) The Administration also wished to accelerate the Programme. However, road opening works had traffic and environmental impacts. Apart from WSD, many other works departments and utility undertakers had to conduct road opening works. To contain traffic disruption at a tolerable level, the Programme could not proceed at full steam but had to proceed in stages;

(b) The last part of stage 1 - phase I of the Programme commenced in 2003. Counting from 2003, there were only 13 more years to go before the Programme was completed by 2015. Moreover, the water mains which most needed rehabilitation were already being replaced or rehabilitated under stage 1; and

(c) Replacing 3 000 kilometres of water mains at an estimated cost of $11 billion, the Programme was a very large-scale project. Even when spread over 15 years, the average length of road openings to be carried out due to the current project already exceeded seven kilometers each month. As such, there was practical difficulty in further accelerating the Programme and increasing the length of

water mains to be replaced monthly without adversely affecting the traffic and environment.

7. Mr Albert CHAN was unconvinced. He opined that with good co-ordination, the Programme could be carried out simultaneously in many districts without increasing disruptions to the traffic. Mr Patrick LAU Sau-shing shared his view. In response, PAS/ETW(W)3 and ADWS/NW explained that the Programme had already been accelerated through improved co-ordination. At present, all works departments were required to draw up their five-year and 10-year works programme and the information was consolidated and circulated among the works departments. The department responsible for a project involving road opening works would notify other works departments as well as private utility undertakers at the planning stage of the project. Where practicable, the works of two works departments occupying the same road surface would be included in a single contract under an entrustment arrangement, while private utility undertakers would be advised to schedule their works to tie in with the schedule of public works projects to minimize road openings.

8. Mr Abraham SHEK Lai-him was equally unconvinced that the Programme could not be further compressed. In this regard, he questioned why the proposed consultancy should take two years to complete. In response, PAS/ETW(W)3 said that since the commencement of stage 2 works would need to tie in with the programme of stage 1, there was no need to accelerate the proposed consultancy. Moreover, apart from carrying out investigation and detailed design for the works under 182WC, the consultants concerned would also be required to conduct public consultation on their proposed works, which would scatter throughout the territory. ADWS/NW supplemented that the consultants would also need to assist in the invitation of tenders for the works.

9. Mr Abraham SHEK however opined that public consultation should not take much time if conducted in different districts in parallel. Highlighting the high unemployment rate in the construction industry, he expressed dissatisfaction with the Administration's reluctance to accelerate the Programme to create more job opportunities, and emphasized that he would follow up the issue at the relevant meetings of the Public Works Subcommittee and the Finance Committee. In response, PAS/ETW(W)3 undertook to examine how to further accelerate the Programme. He however highlighted the need to minimize traffic disruption and inconvenience to the public, and pointed out that the proposed consultancy could help identify measures to accelerate the Programme without increasing such disruptions. ADWS/NW supplemented that stage 2 was scheduled for commencement in early 2007 and the consultants would have less than two years to carry out investigation, design, tendering and other pre-construction work. Mr SHEK remained of the view that efforts should be made to accelerate the Programme in consideration of the great implications of pipe failures.

10. Mr Alan LEONG Kah-kit sought details on the basis upon which the Administration decided to compress the Programme from 20 to 15 years. In reply,

PAS/ETW(W) said that the factors taken into account in mapping out the original 20-year Programme were relevant i.e. pipe material, age of the pipeline, frequency of burst, etc. As to Mr LEONG's request for estimates on the time required for the Programme if the question of traffic disruption was eliminated, he and ADWS/NW explained that such estimates were difficult to quantify because in reality there was a need to consider the traffic and environmental impacts and the need to consider other road excavations required by the utility undertakers and other government departments. ADWS/NW further pointed out that water mains replacement and rehabilitation works were complicated and time-consuming, especially in old or busy districts.

11. Noting the above, Mr Alan LEONG remarked that the progress of the Programme was not determined on a scientific basis and could be further accelerated if necessary. He urged the Administration to further accelerate the Programme in consideration of the great implications of pipe failures on people's livelihood. The Chairman also urged the Administration to actively explore whether the Programme could be further compressed to ten years. In response, ADWS/NW agreed to examine whether stages 3 and 4 of the Programme could be accelerated, with reference to the experience gained in the first two stages.

Priority of water mains to be replaced

12. In reply to Mr CHEUNG Hok-ming on how the priority of water mains to be replaced or rehabilitated was determined, ADWS/NW explained that the 3 000 kilometres of aged water mains covered by the Programme had been identified through the Underground Asset Management Study (UAMS) conducted in 1996, taking into account the capital cost of the replacement and rehabilitation works, savings in maintenance costs, the loss of water and the social implications of leakage and mains bursts. When determining the priority of mains to be replaced under the Programme, the risks of pipe failure were assessed on the basis of records of pipe failures and complaints, and the age of individual water mains. He confirmed that the most critical water mains had already been included in stage 1 for replacement and rehabilitation.

13. In this regard, Mr Abraham SHEK opined that in determining the priority of water mains to be replaced or rehabilitated, the Administration should note that the implications of mains bursts on poor districts were more significant than those on wealthier districts, and that mains bursts in prime commercial areas such as Admiralty would affect Hong Kong's economy.

Improving maintenance of water mains

14. Ir Dr Raymond HO called upon the Administration to use stronger and better quality pipe materials to extend the service life of water mains, and to pay attention to technical problems arising from soil settlement in newly reclaimed areas when installing water mains. In response to him, ADWS/NW reported that the number of pipe failures had stabilized since 2000. As regards new materials

used, he elaborated that for pipes with a diameter of 700 mm and above, mild steel with concrete or epoxy lining would be used; for pipes with a diameter of 400 mm to 600 mm, ductile iron with cement mortar lining would be used; and for pipes with a diameter of 300 mm and below, polyethylene would be used. These were the newest materials widely used in developed countries and were better than the materials used in the past. In response to Mr Albert CHAN Wai-yip's enquiry, the Administration advised that the relevant information on pipe materials used in Hong Kong and in other countries was provided in Enclosure 3 of the LC paper submitted to the Panel.

15. Mr Patrick LAU opined that common utility duct systems, which could organize and accommodate several utility pipelines and conduits in one underground structure, could minimize the need for road openings and should be installed where feasible to facilitate maintenance of water mains. In response, PAS/ETW(W)3 reported that the Administration had examined the viability of installing common utility ducts but considered it infeasible in old districts where underground utilities had already occupied a better part of the road reserve rendering it difficult to find space to accommodate the common utility duct system. Mr LAU however maintained that if the old utilities could be abandoned, common utility ducts could be installed in old districts as well. Mr CHEUNG Hok-ming also urged the Administration to pursue the option as far as practicable since common ducts could obviate repeated excavations. Although installing common utility ducts might incur large-scale excavations and cause great disruption temporarily at the time of installation, the benefits would more than offset the disruption. Moreover, not all roads in old districts were narrow and busy. In response, ADWS/NW pointed out that the Administration was already installing common ducts where feasible. The utilities service road alongside the North Lantau Expressway was a typical example. In old districts , the Administration would explore the feasibility of common utility chambers at road junctions when opportunity arose.

16. Mr Patrick LAU commented that there should be a central database of underground utilities to facilitate communication. In response, PAS/ETW(W)3 advised that the Utilities Technical Liaison Committee had already been set up by the Highways Department. A computerized utility management system (UMS) was also implemented by the Department to facilitate the updating of and access to information, as well as information exchange with other utility undertakers and government departments. To minimize the chance of utility damaging during excavation works, utility undertakers and Government departments would have to check through the UMS the nature and locations of all utilities in the works site before undertaking any road opening works. After completion of the works, the undertakers and departments also had to submit certified records upon request.

17. Mr Alan LEONG expressed concern about the traffic disruption caused by road opening works in general, and questioned why the UMS failed to reduce such and help accelerate the Programme by improving the co-ordination of road opening works. In response, PAS/ETW(W)3 clarified that the UMS only served to

facilitate exchange of information on underground utilities to avoid utility damaging. Co-ordination of road opening works was the responsibility of the Utilities Technical Liaison Committee and the Road Opening Coordinating Committee. With the passing of the Land (Miscellaneous Provisions) (Amendment) Bill 2002, a charging and penalty system for street excavation works had been established. A fee would be imposed to take account of economic costs due to traffic delay for excavation works affecting a carriageway after expiry of the original permit period without good reason. Since the establishment of the system, delays in completion of road opening works had diminished greatly.

Other views

18. While glad to note that the Programme would be compressed from 20 years to 15 years, Ir Dr Raymond HO Chung-tai was keen to ensure that the water mains not covered by the Programme would also be properly maintained to improve the leakage rate of water mains.

19. In response, PAS/ETW(W)3 assured members that upon completion of the Programme, the leakage rate of water mains would be improved from 25% to 14% of the water consumption level. He further assured members that the replacement and rehabilitation of ageing water mains was an ongoing exercise. As such, the conditions of the remaining 4 200 kilometres of water mains would be monitored, and plans for replacement and rehabilitation works would be made, where appropriate. ADWS/NW supplemented that the condition of the whole water supply network was kept under regular review in the light of pipe failures, and details of stages 3 and 4 of the Programme would be determined according to such review. It was anticipated that with the most vulnerable mains rehabilitated or replaced upon completion of the Programme, pipe failures would be kept to the minimum.

20. Mr CHEUNG Hok-ming opined that since the Government did not have legal liability to compensate any parties for financial losses resulting from pipe failures if the failures were not caused by negligence of the Government, the public should have access to information on the past performance of water mains so that they could take precautionary measures to minimize loss from pipe failures. His views were shared by Mr Alan LEONG, who opined that in consideration of the implications of mains bursts, the Government had the responsibility to establish a warning system in this regard as in the case of dangerous slopes.

21. In response, ADWS/NW explained that there was difficulty in establishing the proposed warning system because the risks of mains bursts could not be determined solely on the past performance of water mains. As a result of external factors, their conditions might suddenly deteriorate. The Administration had to keep a close watch on their conditions and adjust the replacement priority as necessary. Notwithstanding, details of the water mains replacement and rehabilitation project were readily available on WSD's website for public information.

22. In response to the Chairman, PAS/ETW(W)3 explained that apart from engaging consultants, in-house staff resources would also be deployed to investigate, design and supervise the replacement and rehabilitation of water mains. However, in view of the current workload of WSD , the proposed works under 182WC required considerable resources over a relatively short period. WSD did not have adequate in-house resources to carry out all the works in addition to the other planned projects. There was thus a need to appoint consultants to carry out investigation, impact assessment and detailed design for some of the water mains. ADWS/NW added that consultants had also been engaged for part of stage 1 works.

V Any other business

23. There being no other business, the meeting ended at 4:00 pm.

Council Business Division 1
Legislative Council Secretariat
7 February 2005