For discussion
on 6 June 2001

PWSC(2001-02)38

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 703 - BUILDINGS
Public Safety - Fire services
124BF - Sha Tau Kok fire station with ambulance facilities

Members are invited to recommend to Finance Committee the upgrading of **124BF** to Category A at an estimated cost of $40.4 million in money-of-the-day prices for the construction of a four-bay fire station with ambulance facilities at Shun Hing Street, Sha Tau Kok, New Territories.

PROBLEM

The existing Sha Tau Kok Fire Station at the junction of Shun Lung Street and Shun Ping Street is a sub-standard and overcrowded facility. Furthermore, when the fire risk category of Sha Tau Kok is upgraded in 2003, major fire appliances turning out from Fanling Fire Station to attend to fire incidents in Sha Tau Kok will not be able to respond within the approved graded response time limit for fire services[1].

/PROPOSAL …..

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[1] According to the current approved fire-fighting policy, fire calls in congested built-up, less congested built-up, dispersed risk, highly dispersed risk and remote areas should be met within a response time of 6, 6, 9, 15 and 23 minutes respectively. In terms of fire risk category, Sha Tau Kok will be upgraded from a highly dispersed risk area to a dispersed risk area in 2003.

PROPOSAL

2. The Director of Architectural Services, with the support of the Secretary for Security, proposes to upgrade **124BF** to Category A at an estimated cost of $40.4 million in money-of-the-day (MOD) prices for the construction of a four-bay fire station with ambulance facilities at Shun Hing Street, Sha Tau Kok to reprovision the existing Sha Tau Kok Fire Station.

PROJECT SCOPE AND NATURE

3. The scope of **124BF** comprises the construction of a four-storey fire station with ambulance facilities on a site of about 2 279 square metres. This new fire station will have -

(a) a four-bay appliance room[2];

(b) offices with a gross floor area (GFA) of about 66 square metres;

(c) an exercise room;

(d) storage areas for foam concentrate, hoses, etc.;

(e) barracks for on-duty operational fire and ambulance staff;

(f) a drying room;

(g) a canteen;

(h) an open drill yard with gross area of about 1 155 square metres; and

(i) fuel filling facilities.

A site plan is at the Enclosure. We plan to start the construction works in December 2001 for completion in July 2003.

/JUSTIFICATION …..

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[2] One bay will be reserved for ambulance use.

JUSTIFICATION

4. Sha Tau Kok is currently categorised as a "highly dispersed risk area" in terms of fire risk category. Fire services for Sha Tau Kok are provided by the existing Sha Tau Kok Fire Station. Commissioned in 1962, the station is accommodated in a two-storey government building in shared use with the Food and Environmental Hygiene Department and the Post Office. The internal net floor area for offices, stores and barracks etc. relating to the fire station is about 153 square metres. There is no proper drill yard, exercise room, nor parking bay for major fire appliances and ambulances.

5. With the ongoing development of multi-storey residential buildings in the area and the gradual population intake, Sha Tau Kok will be upgraded from a "highly dispersed risk area" to a "dispersed risk area" in 2003. It will then become a standing requirement to deploy a Hydraulic Platform (a major aerial fire appliance with capability to deal with fire in multi-storey buildings) for initial attendance to fire incidents in Sha Tau Kok. The existing station can only accommodate two minor fire appliances with no such capability. If required, the current arrangement is for a Hydraulic Platform to turn out from Fanling Fire Station located some 12.5 kilometres away. It takes about 15 minutes for the appliance to reach Sha Tau Kok. To ensure that we can provide the right level of fire fighting service and to meet the approved 9-minute graded response time for a "dispersed risk area" in 2003, we need to reprovision the existing sub-standard station by then.

6. As regards the provision of emergency ambulance services[3], one ambulance is now temporarily deployed from Fanling Ambulance Depot to the existing Sha Tau Kok Fire Station to serve Sha Tau Kok. Due to insufficient parking facilities at the existing station, the ambulance has to be parked on street. This creates security and maintenance problems. With the provision of proper ambulance facilities in the proposed new station, additional ambulances can be deployed to Sha Tau Kok to improve existing services and cope with future expansion.

7. Upon commissioning of the new fire station, the Director of Fire Services (D of FS) will decommission the existing station. The floor area vacated will be handed over to the Government Property Agency (GPA) for other government use.

/FINANCIAL …..

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[3] The emergency ambulance services have adopted a 12-minute response time as their performance target with effect from 1 November 1998.

FINANCIAL IMPLICATIONS

8. We estimate the total capital cost of the project to be $40.4 million in MOD prices (see paragraph 9 below), made up as follows -

		$ million	
(a)	Site formation	1.6	
(b)	Piling	1.9	
(c)	Building	15.5	
(d)	Building services	5.8	
(e)	Drainage and external works	7.5	
(f)	Furniture and equipment	5.5	
(g)	Contingencies	3.2	
	Sub-total	41.0	(in September 2000 prices)
(h)	Provision for price adjustment	(0.6)	
	Total	40.4	(in MOD prices)

The construction floor area of **124BF** is 1 805 square metres. The construction unit cost, represented by building and building services costs, is $11,801 per square metre in September 2000 prices. The construction unit cost is comparable to that for other fire stations recently built by the Government.

9. Subject to approval, we will phase the expenditure as follows -

/**Year** …..

Year	$ million (Sep 2000)	Price adjustment factor	$ million (MOD)
2001 - 02	0.5	0.98000	0.5
2002 - 03	18.1	0.97976	17.7
2003 - 04	17.9	0.98759	17.7
2004 - 05	4.5	0.99549	4.5
	41.0		40.4

10. We derived the MOD estimates on the basis of Government's latest forecast of trend labour and construction prices for the period 2001 to 2005. We will tender the proposed works under a fixed-price lump-sum contract because the contract period will be less than 21 months and we can clearly define the scope of works in advance, leaving little room for uncertainty.

11. We estimate the additional annually recurrent expenditure for the project to be $5.4 million.

PUBLIC CONSULTATION

12. We consulted the District Development and Environmental Improvement Committee of the former North Provisional District Board in November 1998. Members of the Committee supported the project.

13. We circulated an information paper on the proposed project to the Legislative Council Panel on Security on 20 April 2001 and did not receive any comment from Members.

ENVIRONMENTAL IMPLICATIONS

14. We completed a Preliminary Environmental Review (PER) for the project in February 1998. The PER concluded that the project would have no long term environmental impact. The Director of Environmental Protection vetted the PER and agreed that an Environmental Impact Assessment would not be necessary.

/15. …..

15. 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, frequent cleaning and watering of the site and the provision of wheel-washing facilities. During the operation of the fire station, D of FS will implement mitigation measures to minimise noise nuisance. These measures include the use of volume adjustable devices controlling the sound level of the public address system, sirens of fire appliances and ambulances and wig-wag signals. These facilities will only be used when necessary.

16. At the planning and design stages, we have considered measures to reduce the generation of construction and demolition (C&D) materials. We have introduced more prefabricated building elements into the project design to avoid temporary formwork and construction waste. These include dry-wall partitioning and proprietary fittings and fixtures. We will use suitable excavated materials for filling within the site to minimise off-site disposal. In addition, we will require the contractor to use metal site hoardings and signboards so that these materials can be recycled or reused in other projects.

17. We will require the contractor to submit a waste management plan (WMP) for approval. The WMP will include mitigation measures to avoid, reduce, reuse and recycle C&D materials. We will ensure that the day-to-day operations on site comply with the approved WMP. We will control the disposal of public fill and C&D waste to designated public filling facilities and landfills respectively through a trip-ticket system. The contractor will be required to separate public fill from C&D waste for disposal at appropriate facilities. We will record the disposal, reuse and recycling of C&D materials for monitoring purposes. We estimate that the project will generate about 4 000 cubic metres (m^3) of C&D materials. Of these, we will reuse about 1 000 m^3 (25%) on site, 2 400 m^3 (60%) as fill in public filling areas[4], and dispose of 600 m^3 (15%) at landfills.

LAND ACQUISITION

18. The project does not require any land acquisition.

/BACKGROUND …..

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[4] A public filling area is a designated part of a development project that accepts public fill for reclamation purposes. Disposal of public fill in a public filling area requires a licence issued by the Director of Civil Engineering.

BACKGROUND INFORMATION

19. We employed a consultant and a term contractor to carry out a topographical survey and a ground investigation respectively at a total cost of $138,100. The survey and the investigation were completed in May 1995 and February 1996 respectively. We charged this amount to block allocation **Subhead 3100GX** "Project feasibility studies, minor investigations and consultants' fees for items in Category D of the Public Works Programme". We upgraded **124BF** to Category B in October 1996. We have completed the detailed design of the project and are finalising tender documents using in-house staff resources.

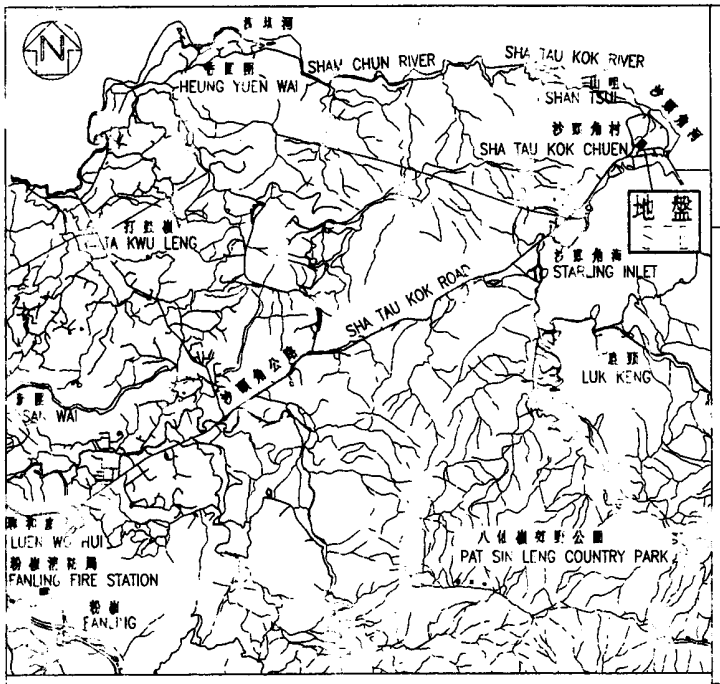
20. For operational and security reasons, fire stations and ambulance depots have to be located on the ground floor and lower levels of a building with an exclusive drill yard, and vehicular and pedestrian access completely segregated from that provided to any non-Fire Services Department development above the building. The inclusion of joint users will necessitate the enlargement of the building footprint and the area of the project site.

21. In line with Government's policy of optimising site development potential, GPA examined the possibility of incorporating additional users into the development in 1995, 1998 and 2001 respectively. However, compatible joint users could not be identified, partly because of the remoteness of the site. We have also attempted to identify a more suitable site within the catchment area but the Director of Planning has advised that no better alternatives are available. We consider that the development represents the optimum use of the site given the circumstances.

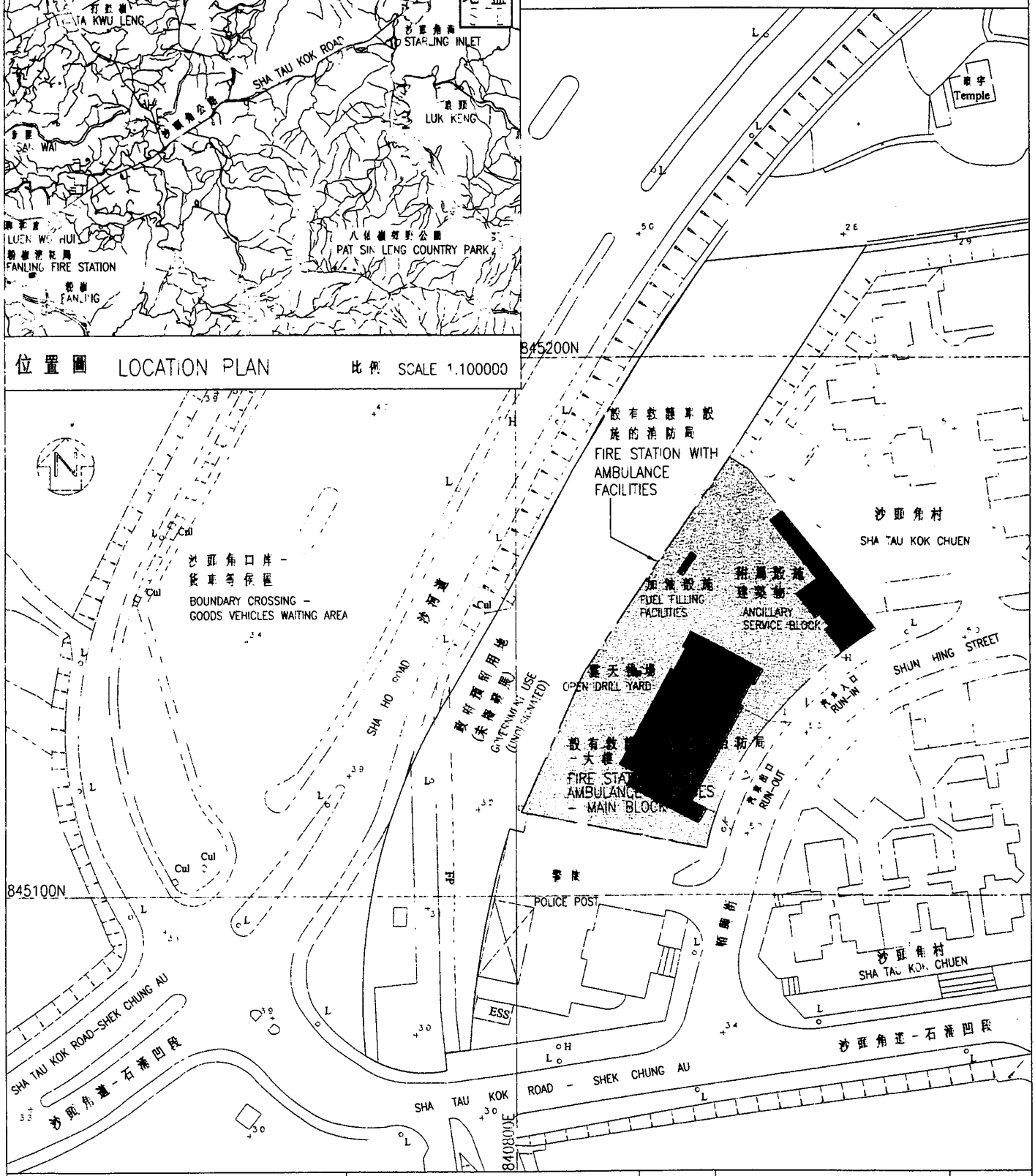
22. We estimate that the project will create some 50 jobs with a total of 770 man-months comprising two professional staff, three technical staff and 45 labourers.

Security Bureau
June 2001

附件
Enclosure



位置圖 LOCATION PLAN 比例 SCALE 1:100000



title (124BF) 沙頭角設有救護車設施的消防局 SHA TAU KOK FIRE STATION WITH AMBULANCE FACILITIES	drawn by H.M. LAM	date 12.5.2001	drawing no. AB/3231/XB101
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