

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 703 – BUILDINGS

Support - Other facilities

178GK – Kwai Chung ambulance depot with Fire Services Department offices and refuse collection point at Hing Shing Road, Area 10B, Kwai Chung

Members are invited to recommend to Finance Committee the upgrading of **178GK** to Category A at an estimated cost of \$93.9 million in money-of-the-day prices for the construction of Kwai Chung ambulance depot with Fire Services Department offices and a refuse collection point at Hing Shing Road, Area 10B, Kwai Chung.

PROBLEM

The ambulance facilities in Kwai Chung cannot cope with the future demand. Kwai Fong Circuit Area needs a refuse collection point (RCP) to resolve its long-standing on-street refuse collection problem. The opportunity is taken to rationalise office accommodation for Fire Services Department (FSD) and to maximise site utilisation.

PROPOSAL

2. The Director of Architectural Services (D Arch S), with the support of the Secretary for Security and the Secretary for Health, Welfare and Food, proposes to upgrade **178GK** to Category A at an estimated cost of \$93.9 million in money-of-the-day (MOD) prices for the construction of Kwai Chung ambulance depot with offices for FSD and an RCP for the Food and Environmental Hygiene Department (FEHD) at Hing Shing Road, Area 10B, Kwai Chung.

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PROJECT SCOPE AND NATURE

3. The scope of **178GK** covers the construction of the following –

(a) a seven-storey building with a construction floor area (CFA) of 4 036 square metres (m²) comprising the following facilities –

(i) Ambulance depot

- three floors (with a CFA of about 1 605 m²) for a three-bay ambulance depot comprising a three-bay appliance room, offices for depot personnel, and supporting facilities including three store rooms, barracks for on-duty operational ambulance staff, toilets and ablutions, a locker-cum-changing room, a drying room and a canteen. In addition, the ambulance depot includes fuel filling and car washing facilities and an open drill yard of about 406 m² to support its operation.

(ii) FSD offices

- four floors (with a CFA of about 2 431 m²) for the Ambulance Command New Territories (NT) Regional Headquarters, Licensing and Certification Command NT South Sub-Regional Office and Fire Safety Command NT Regional Office comprising staff offices, a locker-cum-changing room, an exercise room, a conference room, two interview rooms, a room for storage of plans, a plan processing room, two rooms for staff on standby duties, a training aids room, four pantries and 11 carparking spaces.

(b) a two-storey building with a CFA of 490 m² to accommodate an RCP with areas for parking, loading, storage, washing facilities, a toilet/changing room as well as an office.

———— A site plan is at Enclosure 1 and a three-dimensional perspective drawing of the
———— proposed facilities is at Enclosure 2. We plan to start the construction works in August 2003 for completion in September 2005.

JUSTIFICATION**Ambulance Depot**

4. There is no ambulance depot within the areas of Kwai Chung, Ha Kwai Chung, Lai King and Kwai Chung Container Terminal. At present, these areas are

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serviced by ambulances deployed at Tsing Yi ambulance depot, Lei Muk Shue ambulance depot and the temporary ambulance out-station at Kwai Chung fire station.

5. Of the 15 664 emergency ambulance calls received in 2002, FSD was able to meet 93.4% of them within the 12-minute target response time, as against its performance pledge of 92.5%. However, the response time performance has dropped at an average annual rate of 1% from 96.5% in 1999 to 93.4% in 2002 as the number of emergency calls in the areas has surged at an average annual rate of 4.7% from 13 651 to 15 664 during the same period. It is projected that with the continued growth in population in the areas from 186 000 in 2000 to 221 000 in 2006, together with a projected increase in the proportion of old age population from 14.3% in 2001 to 15.7% in 2011, the demand for the emergency ambulance service in the areas concerned will continue to rise. To ensure adequate provision of emergency ambulance service in Kwai Chung area and to cope with the anticipated increase in demand, we need to provide the proposed ambulance depot in time. With the provision of the proposed ambulance depot at this strategic location, FSD will be able to deploy additional ambulances to service the areas and improve its ambulance coverage.

FSD Offices

6. To optimise the site utilisation, we will relocate the following FSD offices from other government/leased premises to this new building –

- (a) the Ambulance Command NT Regional Headquarters at Tsuen Wan Ambulance Depot; and
- (b) the Licensing and Certification Command NT South Sub-Regional Office and the Fire Safety Command NT Regional Office at leased offices in Tsuen Wan.

7. Since its establishment in 1989, the Ambulance Command NT Regional Headquarters has been occupying temporary offices in the Tsuen Wan Ambulance Depot with below-standard space provision. The relocation of the Ambulance Command NT Regional Headquarters to the new site will relieve the overcrowding situation in Tsuen Wan Ambulance Depot and improve overall operational efficiency. Moreover, the strategic location of the new site will improve the Headquarters' operational and administrative cover of both the NT and Lantau areas.

8. The Licensing and Certification Command NT South Sub-Regional Office and the Fire Safety Command NT Regional Office are currently occupying leased office accommodation in Tsuen Wan. The provision of permanent accommodation for these offices at this convenient location can enhance the delivery of public services, provide security of tenure and savings for the Government's rental payments.

9. Upon the commissioning of the new building, the space to be vacated by the Ambulance Command NT Regional Headquarters will be restored to its original use as a standard ambulance depot. The leased office accommodation of the Licensing and Certification Command NT South Sub-Regional Office and the Fire Safety Command NT Regional Office will be relinquished.

RCP for FEHD

10. There is no RCP in the proposed catchment area bounded by Hing Fong Road, Wing Fong Street, Hing Shing Road and Kwai Fuk Road in Kwai Fong (centred around Kwai Fong Circuit). The nearest RCP is located at Tai Lin Pai Road, which is far away from the proposed catchment area (about 35 minutes' walking distance). Refuse from residential buildings in the area is collected by private refuse collectors and stacked up along the pavements pending collection by refuse collection vehicles. Although refuse collection service has been restricted to evening hours from 5:00 pm to 10:00 pm, collection of refuse on street is not hygienic and the situation has invited numerous complaints from the general public, from Legislative Councillors and Members of Kwai Tsing District Council. The proposed RCP, being conveniently located to service the catchment area, will help resolve the long-standing refuse collection problem.

Advantages of Joint Development of the Ambulance Depot and the RCP

11. The subject site, comprising two adjoining parcels of Government land originally earmarked for the independent development of an ambulance depot and an RCP, is physically constrained by steep slopes at the back. Instead of pursuing two independent developments for FSD and FEHD, we have decided to pursue a joint-user development as it can offer more flexibility in design and make site formation works more practical and cost-effective.

FINANCIAL IMPLICATIONS

12. We estimate the capital cost of the project to be \$93.9 million in MOD prices (see paragraph 13 below), made up as follows –

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	\$ million	
(a) Site formation	1.6	
(b) Geotechnical works	19.1	
(c) Piling	6.2	
(d) Building	35.0	
(e) Building services	16.3	
(f) Drainage and external works	4.8	
(g) Soft landscaping works	0.9	
(h) Furniture and equipment ¹	1.5	
(i) Consultants' fees for geotechnical and structural services	1.0	
(j) Contingencies	8.3	
Sub-total	94.7	(in September 2002 prices)
(k) Provision for price adjustment	(0.8)	
Total	93.9	(in MOD prices)

A breakdown of the estimate for consultants' fees by man-months is at Enclosure 3. The CFA of **178GK** is about 4 526 m², including 4 036 m² for the ambulance depot and FSD offices and 490 m² for the RCP. The estimated construction unit cost, represented by the building and building services costs, is \$11,335 per m² in September 2002 prices. The construction unit cost is comparable to that of other similar projects built by the Government.

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¹ The estimated furniture and equipment cost for the ambulance depot and FSD offices is \$1.45 million and that for the RCP is \$0.05 million. Calculation of the estimated cost of furniture and equipment is based on an indicative list of items required, including standard office furniture and equipment items, remote control call-out system, fitness training equipment for exercises, telephone and fax and closed-circuit television surveillance system for the ambulance depot and FSD offices, and standard office furniture and equipment items, telephone and fax, refuse bins and high-pressure water jet for the RCP.

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

Year	\$ million (Sep 2002)	Price adjustment factor	\$ million (MOD)
2003 – 04	8.0	0.99250	7.9
2004 – 05	40.0	0.99250	39.7
2005 – 06	30.0	0.99250	29.8
2006 – 07	10.0	0.99250	9.9
2007 – 08	6.7	0.99250	6.6
	94.7		93.9

14. We derived the MOD estimates on the basis of the Government's latest forecast of trend labour and construction prices for the period 2003 to 2008. We will deliver the works through a fixed-price lump-sum contract because we can clearly define the scope of works in advance, leaving little room for uncertainty.

15. We estimate the additional annual recurrent expenditure arising from this project to be \$1.9 million.

PUBLIC CONSULTATION

16. We consulted the Food and Environmental Hygiene Committee (FEHC) of Kwai Tsing District Council on 20 October 2000 on the project. The project was voted on by FEHC. However, some residents of a nearby residential development, namely Hibiscus Park, and the principal of a nearby school raised concerns about the possible environmental nuisances (such as foul smell, traffic noise and traffic congestion) generated by the project. In response to these concerns, we have subsequently amended the architectural design of the project by swapping the location of the RCP with the ambulance depot to minimise any possible nuisances caused to nearby residents and students. On 19 October 2001, the revised proposal was presented to the FEHC of Kwai Tsing District Council again and the Committee asked

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FEHD to further submit detailed information on other sites that had been considered for the development of an RCP. Having examined the further information requested, the FEHC finally agreed on 14 December 2001 that the project should be implemented as soon as possible. On 6 November 2002, the Director of Food and Environmental Hygiene personally explained to the local residents group and the school principal that the latest design of the development, coupled with appropriate mitigation measures during construction and operation of the ambulance depot/RCP, should be effective in minimising possible nuisances arising from the development.

17. We circulated an information paper on the project to the Legislative Council Panel on Security and the Legislative Council Panel on Food Safety and Environmental Hygiene on 13 December 2002. We have not received any comments from Members of the Security Panel. The Panel on Food Safety and Environmental Hygiene noted the paper with no comments at the meeting held on 19 December 2002.

ENVIRONMENTAL IMPLICATIONS

18. The project is not designated under the Environmental Impact Assessment Ordinance. The Director of Environmental Protection vetted the Preliminary Environmental Review (PER) and the Supplementary Preliminary Environmental Review (SPER) for the revised site layout in March 2000 and August 2001 respectively. The PER concluded that the project would not cause long-term adverse environmental impact. We will incorporate the mitigation measures into the project design to minimise the potential air and noise nuisance from the project. The recommended measures include full enclosure design of the RCP to contain refuse collection activities and the provision of odour absorption system to remove odour nuisance. The Director of Food and Environmental Hygiene will carry out proper house-keeping, including day-to-day cleansing of the RCP, to control environmental nuisance to the public. For the ambulance depot, the Director of Fire Services will implement mitigation measures to minimise noise nuisance to nearby sensitive receivers. These measures include the use of volume adjustable devices controlling the sound level of the public address system, sirens of ambulances and wig-wag signals, and these facilities will only be used when necessary.

19. As contaminated soil was suspected during the preliminary site investigation of the PER stage, a contaminated land assessment was carried out during the project design stage to identify the extent of contamination and the necessary remediation measures. A contamination assessment report was completed in March 2002 and concluded that the level of contamination is low although lead was detected in soil samples and heavy diesel soil and barium were found in groundwater. During

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the construction stage, we will carry out the remedial actions recommended in the contamination assessment report to excavate the contaminated soil for disposal at strategic landfills. Groundwater will also be removed from excavation areas and disposed of in accordance with the Water Pollution Control Ordinance.

20. For short-term construction impacts, we will implement the standard pollution control measures, including 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. We have included in the project estimates the cost to incorporate the recommended mitigation measures into the works contracts for implementation.

21. 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 reduce 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.

22. We will require the contractor to submit a waste management plan (WMP) for approval. The WMP will include appropriate 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 9 200 cubic metres (m³) of C&D materials. Of these, we will reuse about 50 m³ (0.5%) on site, 8 000 m³ (87.0%) as fill in public filling areas², and dispose of 1 150 m³ (12.5%) at landfills. The notional cost of accommodating C&D waste at landfill sites is estimated to be \$143,750 for this project (based on a notional unit cost³ of \$125/m³).

/ PRELIMINARY.....

² 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.

³ This estimate has taken into account the cost for 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 per m³), nor the cost to provide new landfills (which are likely to be more expensive) when the existing ones are filled. The notional cost estimate is for reference only and does not form part of this project estimate.

PRELIMINARY TRAFFIC IMPACT ASSESSMENT

23. In addition, we completed a preliminary traffic impact assessment (TIA) for the project in September 2001. The preliminary TIA concluded that the project would not have long-term traffic impact to Kwai Chung area. The Commissioner for Transport vetted the preliminary TIA and agreed with the findings.

LAND ACQUISITION

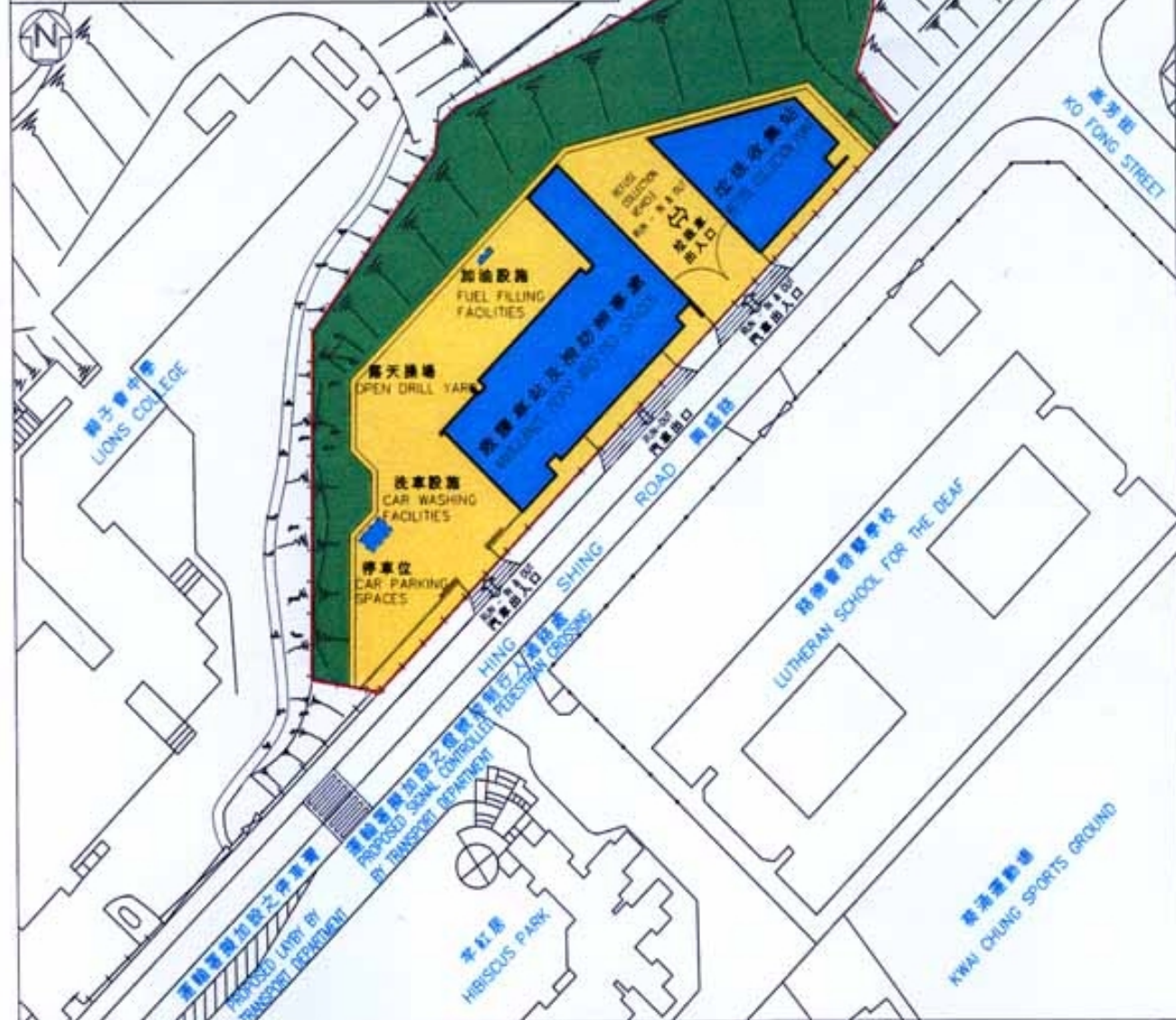
24. The project does not require land acquisition.

BACKGROUND INFORMATION

25. We upgraded **178GK** to Category B in October 2000. We engaged a consultant to carry out a PER and a soil contamination assessment in October 1999, and a SPER and a preliminary TIA for the revised site layout in June 2001 at a total cost of \$0.3 million. We also engaged term contractors to carry out a topographical survey in October 1999 and a ground investigation in December 1999 at a total cost of \$0.5 million. We charged these amounts to block allocation **Subhead 3100GX** "Project feasibility studies, minor investigations and consultants' fees for items in Category D of the Public Works Programme". The consultant has completed the PER, the soil contamination assessment, the SPER and the preliminary TIA, while the term contractors have completed the topographical survey and the ground investigation. D Arch S has completed the detailed design and tender documents using in-house staff resources.

26. In line with Government's policy of optimising site development potential, we examined the possibility of incorporating additional users into the development in 1999, but were not able to identify other compatible joint users apart from the facilities proposed by FSD and FEHD. We have also attempted to identify a more suitable site within the catchment area, but no better alternatives are available. Given the circumstances, we consider that the proposed development represents the optimal use of the site.

27. We estimate that the proposed works will create some 115 jobs totalling 1 360 man-months comprising three professional, five technical staff and 107 labourers.



178GK

位於葵涌興盛路第10B區的救護車站、
消防辦事處及垃圾收集站

KWAI CHUNG AMBULANCE DEPOT WITH
FSD OFFICES AND REFUSE COLLECTION POINT
AT HING SHING ROAD, AREA 10B, KWAI CHUNG

drawn by W.S. LAW date 30.12.2002

approved C.C. LAU date 30.12.2002

office ARCHITECTURAL BRANCH

drawing no. AB/5669/XE502 scale 1:800



ARCHITECTURAL
SERVICES
DEPARTMENT



從西南面拍攝的建築物模型圖
VIEW OF BUILDING MODEL FROM SOUTH WEST



從東北面拍攝的建築物模型圖
VIEW OF BUILDING MODEL FROM NORTH-EAST

178CK

位於葵涌興盛路第10B區的救護車站、
消防辦事處及垃圾收集站

KWAI CHUNG AMBULANCE DEPOT WITH
FSD OFFICES AND REFUSE COLLECTION POINT
AT HING SHING ROAD, AREA 10B, KWAI CHUNG

drawn by	W.S. LAW	date	30.12.2002	drawing no.	AB/5669/XE503	scale	N.T.S.
approved	C.C. LAU	date	30.12.2002	 ARCHITECTURAL SERVICES DEPARTMENT			
office	ARCHITECTURAL BRANCH						

178GK – Kwai Chung ambulance depot with Fire Services Department offices and refuse collection point at Hing Shing Road, Area 10B, Kwai Chung

Breakdown of estimate for consultants' fees

Consultants' staff cost		Estimated man-months	Average MPS* salary point	Multiplier	Estimated fee (\$million)
Geotechnical and structural services	Technical	5.2	14	2.0	0.2
	Professional	6.9	38	2.0	0.8
				Total	1.0

*MPS = Master Pay Scale

Notes

- (1) A multiplier of 2.0 is applied to the average MPS point to estimate the full staff costs including the consultants' overheads and profit, as the staff will be employed in the consultants' offices. (As at 1 October 2002, MPS point 38 is \$57,730 per month and MPS point 14 is \$19,195 per month.)
- (2) The figures given above are based on estimates prepared by the Director of Architectural Services. We will only know the actual man-months and actual fees when we have selected the consultants through the usual competitive bidding system.