For discussion **PWSC(2002-2003)44**
on 5 June 2002

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 708 – CAPITAL SUBVENTIONS AND MAJOR SYSTEMS AND EQUIPMENT
Subventions – Miscellaneous
5QJ – Renovation of the Wu Kwai Sha Youth Village of YMCA, Ma On Shan

Members are invited to recommend to Finance Committee the upgrading of **5QJ** to Category A at an estimated cost of $28 million in money-of-the-day prices for re-roofing the residential cottages containing asbestos in the Wu Kwai Sha Youth Village of the Chinese Young Men's Christian Association of Hong Kong, Ma On Shan.

PROBLEM

The roof sheets of the 42 residential cottages in the Wu Kwai Sha Youth Village of the Chinese Young Men's Christian Association of Hong Kong (YMCA) contain asbestos which may be hazardous to health.

PROPOSAL

2. The Director of Architectural Services (D Arch S), with the support of the Secretary for Home Affairs, proposes to upgrade **5QJ** to Category A at an estimated cost of $28 million in money-of-the-day (MOD) prices for the replacement of the roof sheets containing asbestos of the 42 cottages in the Wu Kwai Sha Youth Village of YMCA, Ma On Shan.

/PROJECT …..

PROJECT SCOPE AND NATURE

3. The project scope comprises the following –

(a) demolition and clearance of the asbestos roof sheets of the 42 residential cottages;

(b) provision of new roof sheets; and

(c) consequential reinstatement works.

A site plan is at the Enclosure. We plan to start works in October 2002 for implementation in three phases to ensure continuous operation of the Youth Village. The entire works would be completed in December 2004.

JUSTIFICATION

4. The Wu Kwai Sha Youth Village is one of the most popular and well-utilised non-government holiday camps subvented by the Leisure and Cultural Services Department (LCSD). In 2001-02, 171 133 people used the residential facilities of the Youth Village, representing an utilisation rate of about 90.1%[1]. The number of non-residential users during the same period was around 156 000, which is 100% of its capacity.

5. The 42 residential cottages of the Youth Village were built in the 1960s when asbestos was commonly applied to roofing materials. It is now widely accepted that asbestos can be hazardous to health. In order to ensure a safe environment for campers, the Architectural Services Department earlier conducted material sampling of the roof sheets to verify the presence of asbestos. It was confirmed that the roof sheets contain a low risk type of asbestos and presents no imminent health hazard if left undisturbed. However, given that they have been in use for over 30 years, weathering over the years would have caused natural wear and tear to the roofs. It is therefore considered necessary to replace the roofing sheets with alternative materials before they deteriorate and cause health hazard to the campers.

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[1] The utilisation rate is calculated on the basis of the following formula –

$$\frac{\text{No. of hours booked}}{\text{No. of hours available for booking}} \times 100\%$$

6. To keep the camp open and minimise disruption to the users of the Youth Village during the replacement works, the demolition and installation works would be carried out in phases. The roof sheets will be removed and disposed of by an asbestos abatement specialist contractor in strict accordance with the current legislative requirements. The required environmental precautionary measures for removing and disposing these low risk type asbestos are as follows –

(a) to hoard off the site against unauthorised entry,

(b) to sufficiently wet the roof sheets to minimise dust level during their removal;

(c) to monitor the dust level during the whole process;

(d) to wrap all removed roof sheets with polythene sheets and dispose of them at a landfill to be designated by the Environmental Protection Department; and

(e) to completely decontaminate the site.

FINANCIAL IMPLICATIONS

7. We estimate the capital cost of the project to be $28 million in MOD prices (see paragraph 8 below), made up as follows –

		$ million	
(a)	Building	21.5	
(b)	Building services	4.4	
(c)	Contingencies	2.6	
	Sub-total	28.5	(in September 2001 prices
(d)	Provisions for price adjustment	(0.5)	
	Total	28.0	(in MOD prices)

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

Year	$ million (Sept 2001)	Price adjustment factor	$ million (MOD)
2002 – 03	2.0	0.98625	2.0
2003 – 04	10.0	0.98378	9.8
2004 – 05	12.0	0.98378	11.8
2005 – 06	4.5	0.98378	4.4
	28.5		28.0

9. We derived the MOD estimates on the basis of the Government's latest forecast of trend labour and construction prices for the period 2002 to 2006. We will deliver the general building works through the maintenance term contract. The term contractor will be required to collaborate with a registered specialist contractor selected to carry out asbestos abatement measures throughout the renovation works. The specialist contractor will be appointed by D Arch S through a separate competitive bidding exercise. D Arch S considers the estimated project cost reasonable as compared with similar renovation works carried out by the Government.

10. The project will not give rise to any additional annual recurrent expenditure.

PUBLIC CONSULTATION

11. We consulted the Legislative Council "Subcommittee to follow up the outstanding capital works projects of the former municipal councils" on the proposed upgrading of this project to Category A on 7 March 2002. Members did not raise any objection to the proposal.

/ENVIRONMENTAL …..

ENVIRONMENTAL IMPLICATIONS

12. The project will not cause any long term environmental adverse impact. 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. The removal, collection and disposal of asbestos-containing material shall be in full compliance with the Air Pollution Control Ordinance, Waste Disposal Ordinance and Waste Disposal (Chemical Waste) (General) Regulation.

13. At the planning and design stages, we have considered measures to reduce the generation of construction and demolition (C&D) materials. D Arch S will use prefabricated roofing system to reduce temporary formwork and construction waste. 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.

14. D Arch S 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. D Arch S will ensure that the day-to-day operations on site comply with the approved WMP. D Arch S 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 and reuse of C&D materials for monitoring purposes. We estimate that the project will generate about 500 cubic metres (m^3) of C&D materials. As the materials to be removed in this project are largely the roof sheets containing asbestos and the false ceiling titles which are due for replacement, reuse of any of them on site is virtually impossible. As such, we will reuse about 200 m^3 (40%) of these C&D materials as fill in public filling areas[2] and dispose of 300 m^3 (60%) at landfills. The notional cost of accommodating C&D waste at landfill sites is estimated to be $37,500 for this project (based on a notional unit cost[3] of $125/$m^3$).

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[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 $90 per/$m^3$), 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.

LAND ACQUISITION

15. The project does not require land acquisition.

BACKGROUND INFORMATION

16. We upgraded **5QJ** to Category B in November 2001. We employed a consultant to carry out asbestos survey in February 2002 to confirm the extent of the presence of asbestos at a cost of $24,225. We charged this amount to **Head 176 Subhead 503** "Subvention to Non-government Organisation Camps". The consultant has completed the survey. D Arch S has completed the detailed design and tender documentation for the project with in-house staff resources.

17. We estimate that the project will create 27 jobs with a total of 650 man-months comprising a professional staff, a technical staff and 25 labourers.

Home Affairs Bureau
May 2002