

For discussion  
on 10 January 2001

PWSC(2000-01)79

## **ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE**

### **HEAD 708 – CAPITAL SUBVENTIONS AND MAJOR SYSTEM AND EQUIPMENT**

#### **Universities**

#### **The Chinese University of Hong Kong**

#### **39EF - Major renovation and upgrading works at the Postgraduate Hall Complex**

#### **The University of Hong Kong**

#### **49EG - 900-place student hostel at the Flora Ho Sports Centre Complex**

Members are invited to recommend to Finance Committee the approval of the following new commitments -

- (a) \$44.63 million in money-of-the-day prices for **39EF** for major renovation and upgrading works at the Postgraduate Hall Complex of the Chinese University of Hong Kong; and
- (b) \$241.16 million in money-of-the day prices for **49EG** for the construction of three blocks of student hostel providing a total of 900 places at the Flora Ho Sports Centre Complex of the University of Hong Kong.

**/PROBLEM .....**

**PROBLEM**

The Chinese University of Hong Kong (CUHK) needs to upgrade the Postgraduate Hall Complex including the Postgraduate Hall and Sir Cho-yiu Hall to meet the latest schedule of accommodation standards for student hostels. The University of Hong Kong (HKU) also requires additional hostel accommodation to meet students' demand.

**PROPOSAL**

2. The Secretary-General, University Grants Committee (SG, UGC), on the advice of the University Grants Committee (UGC) and the Director of Architectural Services (D Arch S) as UGC's Technical Adviser, and with the support of the Secretary for Education and Manpower, proposes to create new commitments totalling \$285.79 million in money-of-the-day (MOD) prices for the following two capital projects -

	<b>\$ million (MOD)</b>
(a) <b>39EF</b> - Major renovation and upgrading works at the Postgraduate Hall Complex (CUHK)	44.63
(b) <b>49EG</b> - 900-place student hostel at the Flora Ho Sports Centre Complex (HKU)	241.16
Total	<hr/> 285.79 <hr/>

**THE CHINESE UNIVERSITY OF HONG KONG  
39EF - MAJOR RENOVATION AND UPGRADING WORKS AT THE  
POSTGRADUATE HALL COMPLEX**

**PROJECT SCOPE AND NATURE**

3. **39EF** involves renovating and upgrading two ageing hostel blocks in the Postgraduate Hall Complex, namely the Postgraduate Hall and Sir Cho-yiu Hall. The site plan is at Enclosure 1. The two Halls were built in 1974. They provide a total of 300 places in a gross floor area (GFA) of 7 600 square metres. The proposed works will involve replacement of the finishes, fixtures, furniture and equipment, fitting-out and building services installations to allow the facilities and provisions to meet today's requirements and spatial standards (average size eight square metres per student). The work will also make the facilities more

/efficient .....

efficient to manage and operate. CUHK plans to start the renovation works in June 2001 for completion in July 2002.

## JUSTIFICATION

4. CUHK has 20 integral hostel buildings on campus. Nine of these are around 25 years old and another six are around 20 years old. A condition survey carried out by chartered building surveyors in late 1997 on the Postgraduate Hall and Sir Cho-yiu Hall found the facilities to be sub-standard. For example, the rooms are small (average size six square metres per student versus eight square metres according to the existing standard) and have inadequate telecommunication connections. They have poor ventilation and sanitary fittings. This presents difficulties for hostel allocation due to the disparity in standards with other hostels on campus.

## FINANCIAL IMPLICATIONS

5. We estimate the capital cost of **39EF** to be \$44.63 million in MOD prices, made up as follows -

	<b>\$ million</b>
(a) Demolition	2.55
(b) Building	21.57
(c) Building services	19.28
(d) External works	2.37
(e) Consultants' fees for	1.63
(i) tender assessment	0.07
(ii) contract administration	0.59
(iii) site supervision	0.92
(iv) out-of-pocket expenses	0.05
(f) Furniture and equipment	4.51
(g) Contingencies	5.19

/Sub-total .....

		<b>\$ million</b>
	Sub-total	57.10 (in September 2000 prices)
(h)	Provision for price adjustment	2.41
	Sub-total	59.51 (in MOD prices)
(i)	Less contribution by CUHK (at 25% of the total estimated project cost)	(14.88)
	Total	44.63 (in MOD prices)

6. The construction floor area of this project is 7 600 square metres. The renovation unit cost, made up of building and building services cost, is \$5,375 per square metre in September 2000 prices. D Arch S considers this to be reasonable and comparable with the corresponding cost for similar projects, such as **34EF** Major renovation to the Basic Medical Science Building of CUHK (upgraded to Category A in February 1997), the construction unit cost of which was \$6,004 per square metre in September 2000 prices.

7. A detailed breakdown by man-months of the estimates for the consultants fees is at Enclosure 2.

8. Subject to Members' approval, CUHK will phase the expenditure of the project as follows -

Year	\$ million (Sept 2000)	Price adjustment factor	\$ million (MOD)
2001 - 02	26.13	1.02550	26.80
2002 - 03	30.97	1.05627	32.71
	<hr/> 57.10 <hr/>		<hr/> 59.51 <hr/>

9. We derived the MOD estimates on the basis of the Government's latest forecast of trend labour and construction prices for the period 2001 to 2003. CUHK will tender the works under a fixed-price lump-sum contract because the scope of works can be clearly defined in advance, leaving little room for uncertainty.

10. The project will have no impact on tuition fees and will create no additional annually recurrent financial implications for the Government. Following the established practice for UGC-funded institutions, CUHK will operate these student hostels on a self-financing basis through charges levied on hostel places.

**THE UNIVERSITY OF HONG KONG  
49EG - 900-PLACE STUDENT HOSTEL AT THE FLORA HO  
SPROTS CENTRE COMPLEX**

**PROJECT SCOPE AND NATURE**

11. 49EG provides for the construction of three blocks of student hostels for undergraduates (two with 17 storeys and one with 16 storeys) housing 300 students each, a canteen serving the resident students, and the re-provisioning of two tennis courts. The project also includes the construction of an access road, slope works required by Buildings Department and the diversion of existing underground utility services arising from the foundation works. The access road is necessary to allow vehicles to enter into the site and to provide for future development of the site. The site plan is at Enclosure 3. HKU plans to invite tenders in May 2001 and commence the construction works in October 2001 for completion in May 2004.

**JUSTIFICATION**

12. In December 1996, the Government promulgated a new policy for the provision of publicly-funded student hostel places at UGC-funded institutions. The aim is to enhance the quality of university education by fostering hostel life. This will sharpen students' communication skills, nurture their leadership qualities, encourage independent thinking and promote participation in community affairs. Under this policy, all undergraduates will have the opportunity to stay in hostels for at least one year and all research postgraduates, non-local students and those undergraduates whose daily travelling time exceeds four hours will be provided with hostel places. The Government will fund up to 75% of the capital cost of the approved student hostel provision, with the remainder to be met by the respective institutions using private funds.

13. HKU currently has 2 086 hostel places (1 909 publicly-funded and 708 privately-funded<sup>1</sup>). The Finance Committee approved funding of \$101.96 million in February 1997 and \$119.51 million in February 1998 to provide 404 and 500 hostel places respectively under projects **46EG** and **47EG** which are scheduled for completion in April 2001. In line with Government's policy mentioned in paragraph 12 above, the approved provision for HKU is 4 560 hostel places; thus HKU has a shortfall of 1 570 places. The majority of these places will be provided in two phases at the Flora Ho Sports Centre Complex - 900 places in phase 1 and 600 places in phase 2. The current proposal covers the phase 1 development.

### FINANCIAL IMPLICATIONS

14. SG, UGC on the advice of D Arch S, recommends approval of the project at a cost of \$241.16 million in MOD prices, made up as follows -

	<b>\$ million</b>
(a) Demolition and site formation	37.28
(b) Elevated access road	13.37
(c) Drainage and utilities diversion	14.64
(d) Building	131.88
(e) Building services	38.68
(f) Consultants' fees for	11.74 <sup>2</sup>
(i) assessment of tenders	0.96
(ii) contract administration	5.76
(iii) site supervision	4.72

/(iv) .....

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<sup>1</sup> Under the existing policy on the provision of student hostels in the UGC-funded institutes, four privately-funded hostel places are counted as one publicly-funded hostel place.

<sup>2</sup> The consultants' fees of \$11.74 million are based on scale fees as the consultancy agreement for this project was awarded in April 1998, prior to the implementation of competitive bidding system in the procurement of consultancy services. The scale fees situation has been reported to Members in a Note for Public Works Subcommittee of Finance Committee number PWSCI(98-99)32. The breakdown of consultant fees' estimates are prepared by HKU and have been agreed by D Arch S.

	<b>\$ million</b>	
(iv) out-of-pocket expenses	0.30	
(g) Furniture and equipment	21.32	
(h) Contingencies	26.89	
Sub-total	295.80	(in September 2000 prices)
(i) Provision for price adjustment	25.75	
Sub-total	321.55	(in MOD prices)
(j) Less contribution by HKU (at 25% of the total estimated project cost)	(80.39)	
Total	241.16	(in MOD prices)

15. The construction floor area of this project is 17 309 square metres. The construction unit cost, made up of building and building services costs, is \$9,854 per square metre in September 2000 prices. D Arch S considers the estimated unit costs to be reasonable and comparable with those of similar projects, such as 46EG, additional residential places in Lady Ho Tung Hall of Residence of HKU (upgraded to Category A in February 1997), the construction unit cost of which was \$9,807 per square metre in September 2000 prices.

16. Subject to Members' approval, HKU will phase the expenditure of the project as follows -

<b>Year</b>	<b>\$ million (Sept 2000)</b>	<b>Price adjustment factor</b>	<b>\$ million (MOD)</b>
2001 - 02	9.50	1.02550	9.74
2002 - 03	47.28	1.05627	49.94
2003 - 04	186.93	1.08795	203.37

/2004 - 05 .....

Year	\$ million (Sept 2000)	Price adjustment factor	\$ million (MOD)
2004 - 05	48.13	1.12059	53.93
2005 - 06	3.96	1.15421	4.57
	295.80		321.55

17. We derived the MOD estimates on the basis of the Government's latest forecast of trend labour and construction prices for the period 2001 to 2006. HKU will tender the works under a fixed-price lump-sum contract because the scope of works can be clearly defined in advance, leaving little room for uncertainty.

18. The project will have no impact on tuition fees. Following the established practice for UGC-funded institutions, HKU will operate these student hostels on a self-financing basis through charges levied on hostel places.

## PUBLIC CONSULTATION

19. Public consultation is not necessary. The renovation and upgrading works under **39EF** are for existing premises within the campus of CUHK. The construction of hostels under **49EG** will be carried out within the campus of HKU and is in line with established policy.

## ENVIRONMENTAL IMPLICATIONS

20. For the proposed new student hostels at HKU, the completed Preliminary Environmental Review conducted in October 1997 recommended the adoption of architectural features for noise shielding purpose and proper positioning of building layout to minimize road traffic noise impact arising from Pok Fu Lam Road. In addition, acoustic window insulation will be provided to the noise sensitive rooms exposed to road traffic noise levels exceeding the limits stipulated in the Hong Kong Planning Standards and Guidelines.

21. There will be no long-term environmental impacts arising from the **39EF** and **49EG**. During renovation and upgrading works of **39EF** and

/construction .....

construction works of **49EG**, CUHK and HKU respectively will control noise, dust and site run-off nuisances to within established standards and guidelines through the implementation of mitigation measures in the relevant works contracts. These include the use of noise suppression baffles and silencers, dust suppression measures as well as regular watering of the sites.

22. Ways of minimising the generation of construction and demolition (C&D) materials were considered at the planning and design stage. CUHK and HKU will require the contractors to submit waste management plans for approval and will ensure that day-to-day operations on respective sites comply with the approved plans. The waste management plans will include appropriate mitigation measures, including an on-site area for waste segregation and sorting of the C&D materials by category. This will facilitate reuse/recycling of C&D materials and reduce the generation of waste. The reuse, recycling and disposal of C&D materials will be properly recorded for monitoring purposes.

23. For **39EF**, CUHK estimates that about 1 200 cubic metres of C&D materials will be generated in all. Of these about 300 cubic metres (25%) will be reused on site, 180 cubic metres of inert C&D materials (15%) will be reused in public filling areas<sup>3</sup> and about 720 cubic metres of C&D waste (60%) will be disposed of at landfills. The portion of inert C&D materials (for example, earth and rock) will be minimal since the project involves mainly renovation and upgrading of existing buildings, whilst most of the materials produced will be C&D waste like worn out pipe works and sanitary fittings. For **49EG**, HKU estimates that some 250 000 cubic metres of C&D materials will be generated. Of these about 150 000 cubic metres (60%) will be reused on site, 99 750 cubic metres of inert C&D materials (39.9%) will be reused in public filling areas and about 250 cubic metres of C&D waste (0.1%) will be disposed of at landfills.

## LAND ACQUISITION

24. The two projects do not require land acquisition.

## BACKGROUND INFORMATION

25. Under existing procedures, UGC-funded institutions submit capital works proposals to the UGC annually. UGC examines all these proposals

/carefully, .....

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<sup>3</sup> A public filling area is a designated part of a development project that accepts public fill for reclamation and/or filling purposes. Disposal of public fill in a public filling area requires a licence issued by the Director of Civil Engineering.

carefully, with professional advice provided by D Arch S who acts as UGC's Technical Adviser. UGC refers those proposals it supports to the Government. Having examined the institutions' proposals, SG, UGC has, in consultation with D Arch S, adjusted the project estimate proposed by CUHK and HKU to arrive at the project estimates set out in paragraph 2 above. A comparison of the project estimates proposed by CUHK and HKU and the estimates recommended by the UGC (agreed by the institutes) is at Enclosure 4.

26. We upgraded both **39EF** and **49EG** to Category B in September 1998. With an allocation of \$980,000 for **39EF** and \$10.83 million for **49EG** from the block allocation **Subhead 8100EX** of the Capital Works Reserve Fund, and private funds of \$330,000 and \$3.61 million respectively from CUHK and HKU's private funds, both institutions have completed most of the pre-tender consultancy services including feasibility study, detailed design and tender documentation. They are in the process of finalising tender documents for the projects and plan to proceed with the construction works soon.

27. CUHK estimates that **39EF** will create some 110 jobs, with a total of 1 240 man-months comprising five professional staff, five technical staff and 100 labourers during construction period. HKU estimates that **49EG** will create about 200 jobs with a total of 5 680 man months, comprising five professional staff, 10 technical staff and 185 labourers during the construction period.

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Education and Manpower Bureau  
January 2001

(PWSC0332/WIN14)



**The Chinese University of Hong Kong**  
**39EF - Major renovation and upgrading works at the Postgraduate Hall Complex**

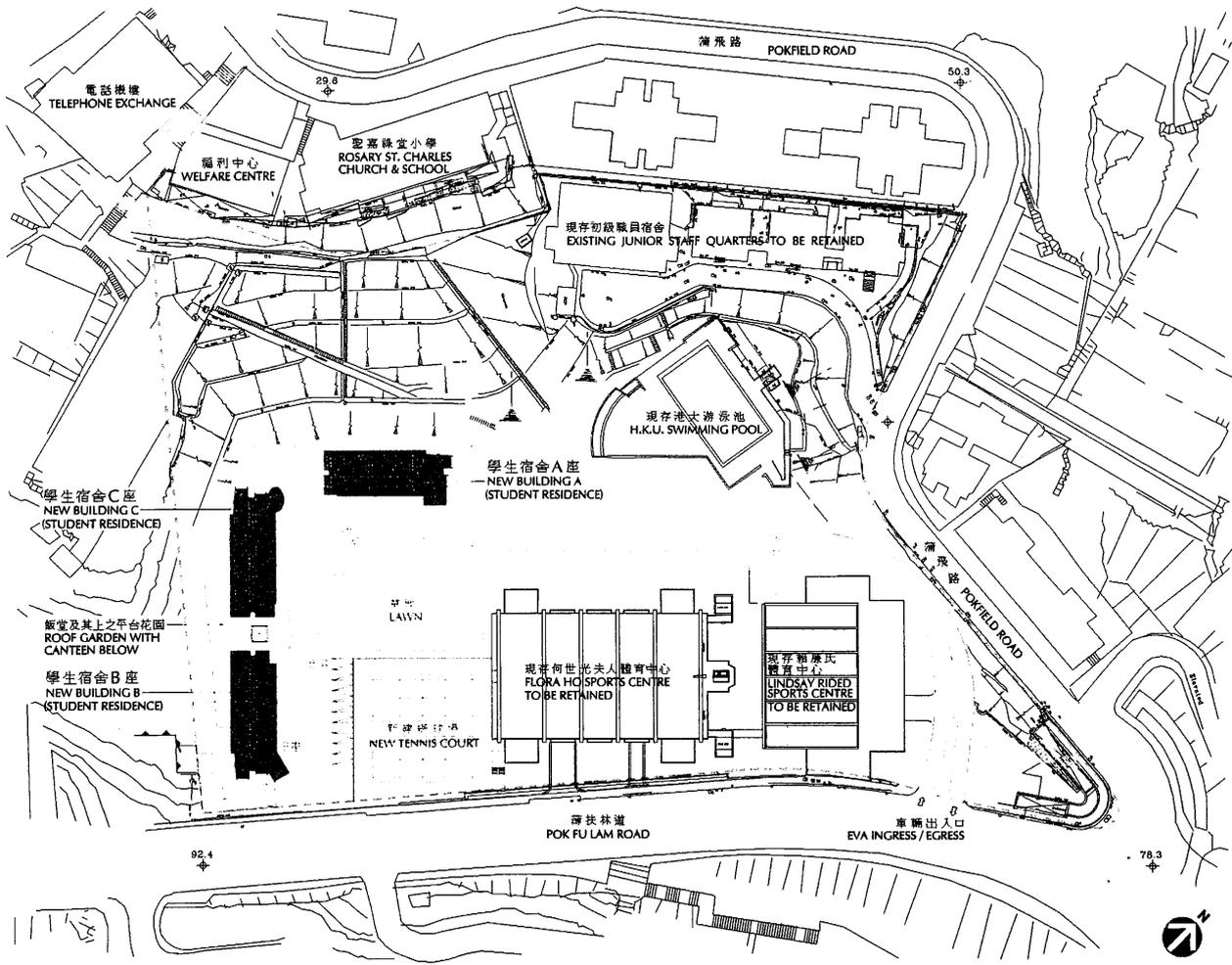
**Breakdown of the estimates for consultants' fees**

		Estimated man-months	Average MPS* salary point	Multiplier Factor	Actual & Estimated Fee (\$ million)
<b>I. Consultants staff costs</b>					
(a) Tender assessment	Professional	0.4	38	2.4	0.05
	Technical	0.4	14	2.4	0.02
(b) Contract administration	Professional	3.6	38	2.4	0.50
	Technical	2.0	14	2.4	0.09
(c) Site supervision	Professional	2.5	38	1.7	0.24
	Technical	21.0	14	1.7	0.68
				<b>Sub-total</b>	1.58
<b>II. Out-of-pocket expenses</b>					
(a) Lithography and other direct expenses					0.05
				<b>Total</b>	1.63

\* MPS = Master Pay Scale

**Notes**

- Regarding the staff employed in the consultants' offices, a multiplier factor of 2.4 is applied to the average MPS point to arrive at the full staff costs including the consultants overhead and profit (as at 1 April 2000, MPS point 38 is \$57,525 per month, and MPS point 14 is \$19,055 per month). A multiplier factor of 1.7 is applied in the case of contract staff employed by CUHK direct on the project.
- Out-of-pocket expenses are the actual costs incurred. The consultants are not entitled to any additional payment for the overheads or profit in respect of these items.
- The figures given above are based on estimates prepared by the CUHK which have been examined and agreed by the Director of Architectural Services.



附件 3 Enclosure 3 to PWSC(2000-01)79

SIMON KWAN & ASSOCIATES LTD. Architects, Planners & Designers  
 建築師、策劃師及設計公司  
 ✳ 8049EG 900 - PLACE STUDENT HOSTEL AT THE FLORA HO SPORTS CENTRE COMPLEX  
 在何世光夫人體育中心興建共有900個宿位的學生宿舍  
 SCALE 1:1200  
 29 - 12 - 2000

## Enclosure 4 to PWSC(2000-01)79

### A comparison of the project estimates proposed by CUHK and HKU with the estimates recommended by UGC

<b>Project</b>	<b>Amount proposed by institutions (in Sept 2000 prices) (\$ million)</b>	<b>Amount recommended by UGC (in Sept 2000 prices) (\$ million)</b>	<b>Amount of reduction (\$ million)</b>
CUHK - <b>39EF</b> Major renovation and upgrading works at the Postgraduate Hall Complex	60.48	57.10	3.38
HKU - <b>49EG</b> 900-place student hostel at the Flora Ho Sports Centre Complex	299.69	295.80	3.89

#### **39EF**

The net reduction of \$3.38 million is the result of the following adjustments -

- (a) downward adjustment of the building cost (\$2.05 million); and
- (b) downward adjustment of consultants' fees (\$1.33 million).

#### **49EG**

The net reduction of \$3.89 million is the result of the following adjustments -

- (a) downward adjustment of consultants' fees (\$3.54 million); and
- (b) corresponding downward adjustment of contingencies (\$350,000).