

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

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

#### **Universities**

#### **The Hong Kong University of Science and Technology**

#### **8EL – Student hostel (527 places)**

Members are invited to recommend to the Finance Committee to approve a new commitment of \$114.43 million in money-of-the-day prices for the construction of a student hostel providing 527 places for the Hong Kong University of Science and Technology.

### **PROBLEM**

The Hong Kong University of Science and Technology (HKUST) 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 a new commitment at an estimated cost of \$114.43 million in money-of-the-day (MOD) prices for the construction of a student hostel providing 527 places for HKUST.

**/PROJECT .....**

## PROJECT SCOPE AND NATURE

3. The project provides for the construction of a ten-storey student hostel block for undergraduates. It will provide 527 hostel places, a canteen as well as common and recreation areas serving the resident students. The project also includes the construction of a road for emergency vehicle access, the reprovisioning of 20 parking spaces and slope works required by Buildings Department. The site plan is at Enclosure 1. HKUST plans to invite tenders in June 2001 and commence the construction works in October 2001 for completion in September 2003.

## JUSTIFICATION

4. In December 1996, the Government promulgated a 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. 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.

5. HKUST currently has an equivalent of 2 348 publicly-funded hostel places (2 078 publicly-funded and 1 080 privately-funded<sup>1</sup>). In line with Government's promulgated policy mentioned in paragraph 4 above, the approved provision for HKUST is 2 875 hostel places. Thus HKUST has a shortfall of 527 places. The project will meet the shortfall of HKUST in full.

## FINANCIAL IMPLICATIONS

6. SG, UGC, recommends approval of the project at a cost of \$114.43 million in MOD prices, made up as follows -

/(a) .....

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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 equivalent to one publicly-funded hostel place.

	<b>\$ million</b>
(a) Site formation and slope stabilisation	6.52
(b) External works and services	7.66
(c) Building	77.88
(d) Building services	22.90
(e) Consultants' fees for -	3.88
(i) assessment of tenders	0.19
(ii) contract administration	1.19
(iii) site supervision	2.30
(iv) out-of-pocket expenses	0.20
(f) Furniture and equipment	12.60
(g) Contingencies	13.14
Sub-total	144.58 (in September 2000 prices)
(h) Provisions for price adjustment	8.00
Sub-total	152.58 (in MOD prices)
(i) Less contribution by HKUST (at 25% of the total estimated project cost)	(38.15)
Total	114.43 (in MOD prices)

7. The construction floor area of this project is 10 209 square metres. The construction unit cost, represented by building and building services costs, is \$9,872 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 **49EG**, 900-place student hostel at Flora Ho Sports Centre

/Complex, .....

Complex, the University of Hong Kong. The latter was upgraded to Category A in February 2001 and the construction unit cost was \$9,854 per square metre in September 2000 prices. A detailed breakdown by man-months of the estimates for the consultants fees is at Enclosure 2.

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

Year	\$ million (Sept 2000)	Price adjustment factor	\$ million (MOD)
2001 - 02	28.48	1.02550	29.21
2002 - 03	92.80	1.05627	98.02
2003 - 04	23.30	1.08795	25.35
	144.58		152.58

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 2004. HKUST 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. In line with the established practice for UGC-funded institutions, HKUST will operate these student hostels on a self-financing basis through charges levied on hostel places.

## **PUBLIC CONSULTATION**

11. We do not consider public consultation necessary. The construction of the hostel will be carried out within the campus of HKUST and is in line with established policy.

**/ENVIRONMENTAL .....**

## ENVIRONMENTAL IMPLICATIONS

12. We completed a Preliminary Environmental Review (PER) for the project in August 1997 and 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.

13. HKUST 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, wheel washing facilities and dust suppression equipment as well as regular watering of the site.

14. At the planning and design stages, HKUST has taken into consideration the site profile and contours with a view to minimising cutting and excavation. To further minimise the generation of construction and demolition (C&D) materials, HKUST will encourage the contractor to use steel instead of timber in formwork and temporary works. HKUST estimates that some 6 000 cubic metres (m<sup>3</sup>) of C&D materials will be generated from execution of the project. Of these, about 4 000 m<sup>3</sup> (67%) will be reused on site, 1 990 m<sup>3</sup> (33%) will be reused as fill in public filling areas<sup>2</sup> and about 10 m<sup>3</sup> (less than 1%) will be disposed of at landfills. HKUST will require the contractor under the contract to submit, for approval, a waste management plan (WMP) with appropriate mitigation measures, including the allocation of areas for waste segregation on-site to facilitate reuse or recycling of C&D materials. HKUST will ensure that the day-to-day operations on site comply with the approved WMP and will implement a trip-ticket system to control the proper disposal of C&D materials. HKUST will also record the reuse, recycling and disposal of C&D materials for monitoring purposes.

## LAND ACQUISITION

15. The project does not require land acquisition.

**/BACKGROUND .....**

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<sup>2</sup> 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**

16. Under existing procedures, UGC-funded institutions submit capital works proposals to the UGC on an annual basis. UGC examines all these proposals 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 HKUST to arrive at the project estimate set out in paragraph 2 above. A comparison of the project estimate proposed by HKUST and the estimate recommended by the UGC (agreed by HKUST) is at Enclosure 3.

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17. We upgraded **8EL** to Category B in September 2000. With an allocation of \$2.75 million from the block allocation **Subhead 8100EX** "Alterations, additions, repairs and improvements to the campuses of the UGC-funded institutions" and private funds of \$910,000, HKUST has completed most of the pre-tender consultancy services including feasibility study, site investigation, detailed design and tender documentation. HKUST is finalising tender documents for the projects and plans to proceed with the construction works in October 2001.

18. HKUST estimates **8EL** will create about 125 jobs, with a total of 2 600 man-months comprising four professional staff, six technical staff and 115 labourers during construction period.

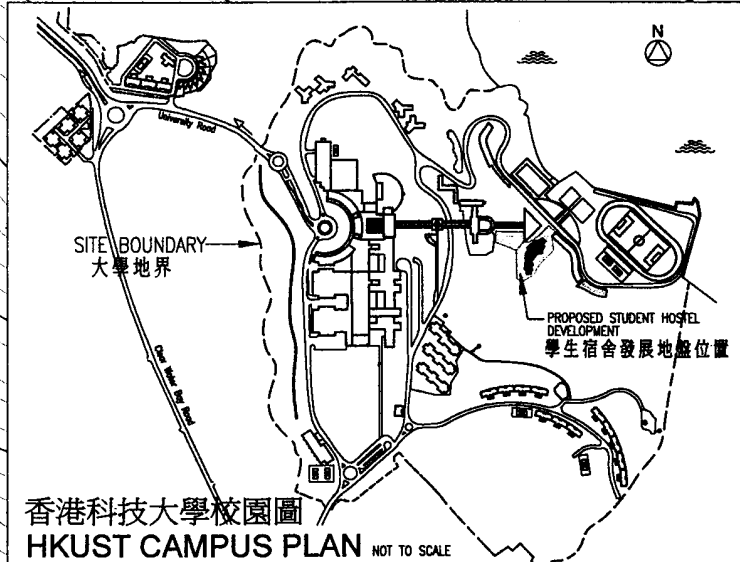
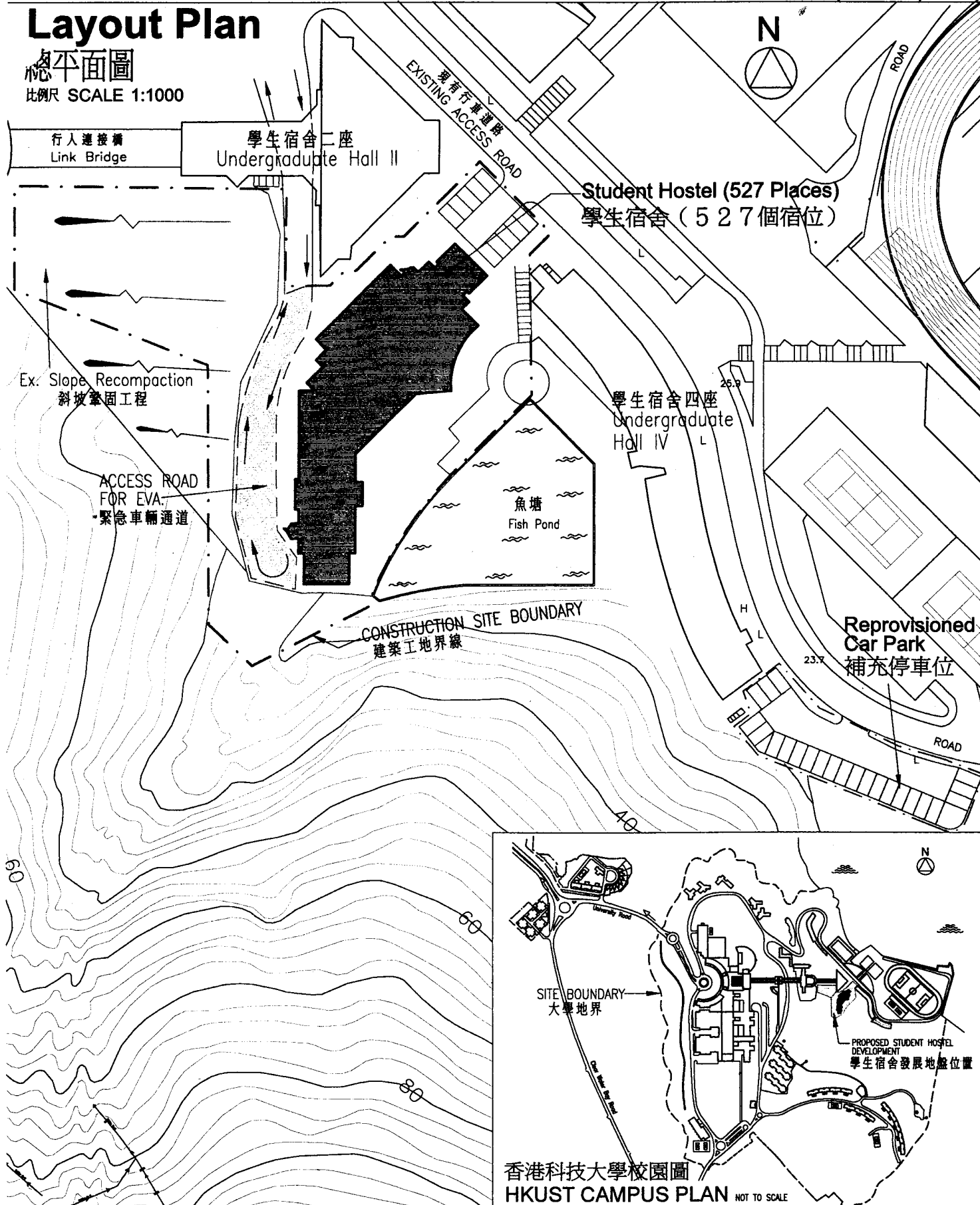
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Education and Manpower Bureau  
April 2001

# Layout Plan

總平面圖

比例尺 SCALE 1:1000



DRAWING TITLE 圖標

**8008EL-Student Hostel (527 Places)**  
**學生宿舍 (527個宿位)**

修訂 REV.	內容摘要 DESCRIPTION	日期 DATE
DEPT. 部門 EMO	SCALE 比例 1:1000	
DRAWN BY 繪圖 DC	CHECKED BY 核對 RH	
CAD FILE NO. 檔案 8008el-1000	DATE 日期 28 FEB. 01	
DRAWING NO. 圖號	UST-8008EL	



THE HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY

香港科技大學

**Enclosure 2 to PWSC(2001-02)14**

**The Hong Kong University of Science and Technology  
8EL – Student hostel (527 places)**

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

			<b>Estimated man- months</b>	<b>Average MPS* salary point</b>	<b>Multiplier Factor</b>	<b>Estimated Fee (\$ million)</b>
<b>(a) Consultants staff costs</b>						
(i)	Tender assessment	Professional	1.0	38	2.4	0.14
		Technical	1.0	14	2.4	0.05
(ii)	Contract administration	Professional	7.0	38	2.4	0.97
		Technical	4.8	14	2.4	0.22
(iii)	Site supervision	Professional	12.0	38	1.7	1.17
		Technical	35.0	14	1.7	1.13
					Sub-total	<hr/> 3.68 <hr/>
<b>(b) Out-of-pocket expenses</b>						
(i)	Lithography and other direct expenses					0.20
					Total	<hr/> 3.88 <hr/>

**\* 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' overheads 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 HKUST 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 HKUST which have been examined and agreed by the Director of Architectural Services.



**Enclosure 3 to PWSC(2001-02)14**

**A comparison of the project estimate requested by HKUST  
with the estimate recommended by UGC**

<b>Project</b>	<b>Amount proposed by HKUST (in Sept 2000 prices) (\$ million)</b>	<b>Amount recommended by UGC (in Sept 2000 prices) (\$ million)</b>	<b>Amount of reduction (\$ million)</b>
HKUST - Student hostel (527 places)	152.35	144.58	7.77

The net reduction of \$7.77 million results from trimming the estimates on -

- (a) construction cost by \$4.70 million;
- (b) consultants' fees by \$1.16 million;
- (c) furniture and equipment by \$440,000; and
- (d) contingencies by \$1.47 million.